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PREFACE

This is the fifty-eighth volume of issuances (1 – 496) of the Nuclear Regulatory Commission and its Atomic Safety and Licensing Boards, Administrative Law Judges, and Office Directors. It covers the period from July 1, 2003, to December 31, 2003.

Atomic Safety and Licensing Boards are authorized by Section 191 of the Atomic Energy Act of 1954. These Boards, comprised of three members conduct adjudicatory hearings on applications to construct and operate nuclear power plants and related facilities and issue initial decisions which, subject to internal review and appellate procedures, become the final Commission action with respect to those applications. Boards are drawn from the Atomic Safety and Licensing Board Panel, comprised of lawyers, nuclear physicists and engineers, environmentalists, chemists, and economists. The Atomic Energy Commission first established Licensing Boards in 1962 and the Panel in 1967.

Between 1969 and 1990, the AEC authorized Atomic Safety and Licensing Appeal Boards to exercise the authority and perform the review functions which would otherwise have been exercised and performed by the Commission in facility licensing proceedings. In 1972, that Commission created an Appeal Panel, from which are drawn the Appeal Boards assigned to each licensing proceeding. The functions performed by both Appeal Boards and Licensing Boards were transferred from the AEC to the Nuclear Regulatory Commission by the Energy Reorganization Act of 1974. Appeal Boards represented the final level in the administrative adjudicatory process to which parties could appeal. Parties, however, were permitted to seek discretionary Commission review of certain board rulings. The Commission also could decide to review, on its own motion, various decisions or actions of Appeal Boards.

On June 29, 1990, however, the Commission voted to abolish the Atomic Safety and Licensing Appeal Panel, and the Panel ceased to exist as of June 30, 1991. Since then, the Commission itself reviews Licensing Board and other adjudicatory decisions, as a matter of discretion. *See* 56 Fed. 29 & 403 (1991).

The Commission also has Administrative Law Judges appointed pursuant to the Administrative Procedure Act, who preside over proceedings as directed by the Commission.

The hardbound edition of the Nuclear Regulatory Commission Issuances is a final compilation of the monthly issuances. It includes all of the legal precedents for the agency within a six-month period. Any opinions, decisions, denials, memoranda and orders of the Commission inadvertently omitted from the monthly softbounds and any corrections submitted by the NRC legal staff to the printed softbound issuances are contained in the hardbound edition. Cross references in the text and indexes are to the NRCI page numbers which are the same as the page numbers in this publication.

Issuances are referred to as follows: Commission—CLI, Atomic Safety and Licensing Boards—LBP, Administrative Law Judges—ALJ, Directors' Decisions—DD, and Decisions on Petitions for Rulemaking—DPRM.

The summaries and headnotes preceding the opinions reported herein are not to be deemed a part of those opinions or to have any independent legal significance.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 50-213-OLA**
(License Termination Plan)

CONNECTICUT YANKEE ATOMIC POWER COMPANY
(Haddam Neck Plant) **July 2, 2003**

In this license termination proceeding for Connecticut Yankee Atomic Power Company's commercial nuclear reactor at Haddam Neck, the Commission denies the Intervenor's petition to consider whether the NRC's radiological criteria allow excessive radioactive residue after decommissioning and are thus inimical to the health and safety of children. The Commission also denies the Intervenor's request to direct the Licensing Board to accept a late-filed amended contention related to potential radiation doses to children.

ADJUDICATORY HEARINGS: SUSPENSION FOR RULEMAKING PROCEEDING

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

There are two vehicles available for making a request to avoid application of an NRC rule in an individual adjudicatory proceeding. First, a party may petition for rulemaking under 10 C.F.R. § 2.802 and make a concurrent request that the Commission suspend a licensing proceeding to which the rulemaking petitioner is a party pending disposition of the petition for rulemaking. Second, a party may request waiver of a rule under 10 C.F.R. § 2.758(b).

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

REGULATIONS: INTERPRETATION (10 C.F.R. § 2.758)

Although section 2.758 applies by its specific terms to proceedings ''involving initial or renewal licensing'' subject to 10 C.F.R. Part 2, Subpart G, we routinely apply the rule to license amendment cases. *See, e.g., Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 211 n.14 (1998) (challenge to a reactor license termination plan); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 364 (2001), *reconsideration denied,* CLI-02-1, 55 NRC 1 (2002) (license amendment case). *Cf. North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 217 n.8 (1999) (*citing* 10 C.F.R. § 2.1329, license transfer proceeding rule analogous to section 2.758).

NRC: CHOICE OF RULEMAKING OR ADJUDICATION

''[A]gencies are free either to determine issues on a case-by-case basis through adjudications or . . . to resolve matters generically through the rulemaking process.'' *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 474 (2001), quoting *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 343 (1999), citing *Heckler v. Campbell,* 461 U.S. 458, 467 (1983). ''Otherwise, the agency would be required 'continually to relitigate issues that may be established fairly and efficiently in a single rulemaking proceeding.' '' *Oconee* at 343, quoting *Heckler* at 467.

RULES OF PRACTICE: CHALLENGE TO COMMISSION REGULATIONS

By promulgating 10 C.F.R. § 20.1402, the rule on site release criteria, the Commission has decided that all sites should be subject to a uniform 25-mrem/year dose standard. Thus, the Commission has prescribed ''the pertinent standards for termination of [a] reactor license;'' these standards are ''not subject to challenge or litigation in an adjudication.'' *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 211 n.14 (1998). *See also* 10 C.F.R. § 2.758.

COMPLIANCE WITH SAFETY STANDARDS

Our license termination rule requires the NRC to find that decommissioning activities will not be ''inimical'' to the public health and safety. By definition,

compliance with our safety standards satisfies the ''not inimical'' requirement in areas covered by the standards. *See Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station), ALAB-161, 6 AEC 1003, 1010 (1973), *aff'd,* CLI-74-2, 7 AEC 2 (1974), *aff'd sub nom. Citizens for Safe Power v. NRC,* 524 F.2d 1291 (D.C. Cir. 1975). *See also Dairyland Power Cooperative* (La Crosse Boiling Water Reactor), LBP-82-58, 16 NRC 512, 522 (1982) (A showing that releases comply with 10 C.F.R. Part 50, Appendix I design objectives establishes conformance to ALARA requirement in regulations and ''it follows that the emissions are . . . [not] inimical to public health and safety.'')

NRC: RULEMAKING AUTHORITY

If our safety regulations are in any way inadequate and need revision, the appropriate vehicle to ask the Commission to set a new standard is a petition for rulemaking under 10 C.F.R. § 2.802.

NRC: CHOICE OF RULEMAKING OR ADJUDICATION

RULES OF PRACTICE: LITIGABILITY OF ISSUES

Adjudications do not provide a forum to consider rule changes.

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

When special circumstances exist at a particular site, our adjudicatory rules provide a mechanism for requesting a waiver of an otherwise controlling safety regulation. In that case, a party to an individual adjudicatory proceeding may request a waiver for that proceeding only. ''The sole ground for petition for waiver or exception shall be that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted.'' *See* 10 C.F.R. § 2.758(b).

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS; GENERIC ISSUES

Waiver of a Commission rule is simply not appropriate for a generic issue. *See Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-80-16, 11 NRC 674, 675 (1980).

LICENSING BOARDS: AUTHORITY

RULES OF PRACTICE: LITIGABILITY OF ISSUES; CHALLENGE TO COMMISSION REGULATIONS; VALIDITY OF RULE OR REGULATION

Consideration of the Intervenor's proposed amended contention requires the Licensing Board to evaluate the adequacy of the NRC's current decommissioning standard of 25 mrem/year. The Licensing Board is precluded from undertaking such an evaluation unless the Commission either changes the standard or directs the Licensing Board to undertake the evaluation.

MEMORANDUM AND ORDER

In this license termination proceeding for Connecticut Yankee Atomic Power Company's (CY's) commercial nuclear reactor at Haddam Neck, Citizens Awareness Network (CAN), an Intervenor, has filed a petition directly with the Commission. CAN's petition raises the question whether NRC's radiological criteria for license termination[1] allow excessive radioactive residue at Haddam Neck after decommissioning and are thus ''inimical'' to the health and safety of children. CAN's petition also asks the Commission to direct the Licensing Board to accept a late-filed amended contention related to potential radiation doses to children. We deny the petition in its entirety.

I. BACKGROUND

This proceeding concerns a license amendment application seeking approval of a License Termination Plan (LTP) for the Haddam Neck nuclear power plant. CAN and the Connecticut Department of Public Utility Control requested a hearing and submitted contentions. The Board granted the requests of both Petitioners and admitted some of their contentions, including CAN's Contention 6.1, which raises the question whether certain parameters used by CY in determining compliance with release criteria in 10 C.F.R. Part 20, Subpart E, are sufficiently conservative.[2] In particular, CAN asserts that the dose modeling calculation in CY's LTP is flawed because CY did not calculate doses to children.

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[1] *See* 10 C.F.R. § 20.1402 (dose standard for a site's ''unrestricted use'' is 25 mrem/year).

[2] *See* LBP-01-21, 54 NRC 33 (2001). The Connecticut Department of Utility Control later withdrew its contentions and secured government participant status before the evidentiary hearing.

CY moved for reconsideration of the Board's decision to admit CAN Contention 6.1 in limited form. The Board denied the motion and directed the parties to address the following question in their presentation of evidence:

> What are the appropriate factors and considerations relating to the ''outdoors value,'' yearly intake of water by residents, and the nature of and extent to which the characteristics of children must be taken into account in calculating the TEDE[3] to the ''average member of the critical group'' in the ''resident farmer scenario,'' for purposes of the Haddam Neck site License Termination Plan, in order that the LTP can ''demonstrate[] that the remainder of decommissioning activities . . . will not be inimical . . . to the health and safety of the public,'' as required by 10 C.F.R. § 50.82(a)(10)?[4]

CY asked the Commission to review the Board's decision to admit the portion of CAN Contention 6.1 that pertained to children. Finding that CY's petition did not meet our standards for interlocutory review, we denied it.[5]

During a 5-day evidentiary hearing in mid-March, CAN announced its intention to file an amended contention based on information in a new U.S. Environmental Protection Agency publication. The proposed amended contention states:

> NRC regulations at 10 C.F.R. 50.82(a)(10) preclude NRC approval of a license termination plan unless the NRC finds, among other things, that decommissioning activities will not be inimical to the health and safety of the public. Contrary to this requirement, the LTP is not adequate to protect the health and safety of children, because it fails to account for the higher risk to children posed by the levels of residual radiation CY[] poses [*sic*] to leave at the Haddam Neck site.[6]

CAN asked the Board to hold the record open pending a Commission decision on a related petition, which it filed directly with the Commission 3 days later.

The petition before us asks the Commission to consider whether the 25-mrem/year dose standard set out in 10 C.F.R. § 20.1402 ensures that decommissioning activities are ''not inimical'' to the health and safety of children in

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[3] Total effective dose equivalent.

[4] LBP-01-25, 54 NRC 177, 197 (2001).

[5] *See* CLI-01-25, 54 NRC 368 (2001).

[6] ''Citizens Awareness Network's Request for Admission of Late-Filed Amended Contention 6.1, Request That Consideration Be Held in Abeyance, and Request To Hold the Record Open,'' at 5 (Apr. 11, 2003).

satisfaction of 10 C.F.R. § 50.82(a)(10)[7] and requests that we direct the Board to accept Amended Contention 6.1. Both the Licensee and the NRC Staff oppose CAN's petition.[8]

II. DISCUSSION

A. Challenges to NRC Regulations in Individual Adjudicatory Proceedings

There are two vehicles available for making a request to avoid application of an NRC rule in an individual adjudicatory proceeding. First, a party may petition for rulemaking under 10 C.F.R. § 2.802 and make a concurrent request that the Commission suspend a licensing proceeding to which the rulemaking petitioner is a party pending disposition of the petition for rulemaking. Second, a party may request waiver of a rule under 10 C.F.R. § 2.758(b).[9] We are not certain how to label CAN's petition, which asks the Commission, in effect, to reevaluate the adequacy of our current decommissioning standard of 25 mrem/year *in this individual adjudicatory proceeding.* Regardless of what we call it, CAN's petition falls short under either the rulemaking or waiver standard. Accordingly, we decline to consider the merits of CAN's specific arguments here.

1. Rulemaking Petition

''[A]gencies are free either to determine issues on a case-by-case basis through adjudications or . . . to resolve matters generically through the rulemaking

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[7] ''If the license termination plan demonstrates that the remainder of decommissioning activities will be performed in accordance with the regulations in this chapter, *will not be inimical to the common defense and security or to the health and safety of the public,* and will not have a significant effect on the quality of the environment and after notice to interested persons, the Commission shall approve the plan, by license amendment . . . .'' 10 C.F.R. § 50.82(a)(10) (emphasis added).

[8] CY, expressing doubts about whether a responsive pleading to CAN's petition in the nature of a rulemaking petition is required or permitted, moved for leave to file its response on May 6, 2003. We grant the motion and accept CY's pleading for consideration.

[9] Although section 2.758 applies by its specific terms to proceedings ''involving initial or renewal licensing'' subject to 10 C.F.R. Part 2, Subpart G, we routinely apply the rule to license amendment cases. *See, e.g., Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 211 n.14 (1998) (challenge to a reactor license termination plan); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 364 (2001), *reconsideration denied,* CLI-02-1, 55 NRC 1 (2002) (license amendment case). *Cf. North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 217 n.8 (1999) (*citing* 10 C.F.R. § 2.1329, license transfer proceeding rule analogous to section 2.758).

process.''[10] ''Otherwise, the agency would be required 'continually to relitigate issues that may be established fairly and efficiently in a single rulemaking proceeding.' ''[11] By promulgating 10 C.F.R. § 20.1402, the rule on site release criteria, the Commission has decided that all sites should be subject to a uniform 25-mrem/year dose standard. Thus, the Commission has prescribed ''the pertinent standards for termination of [a] reactor license;'' these standards are ''not subject to challenge or litigation in an adjudication.''[12] While it is true, as CAN stresses, that our license termination rule requires the NRC to find that decommissioning activities will not be ''inimical'' to the public health and safety, by definition compliance with our safety standards satisfies the ''not inimical'' requirement in areas covered by the standards.[13]

If our safety regulations are in any way inadequate and need revision, the appropriate vehicle to ask the Commission to set a new standard is a petition for rulemaking under 10 C.F.R. § 2.802.[14] This regulation describes the procedure for filing the petition as well as its contents. To protect its position, the rulemaking petitioner ''may request the Commission to suspend all or any part of any licensing proceeding to which the petitioner is a party pending disposition of the petition for rulemaking.''[15] If the petition meets initial screening requirements, the Commission may publish notice of the proposed rulemaking and provide an opportunity for public participation by submitting comments.

Rulemaking is an exercise of the NRC's legislative authority, rather than its adjudicatory authority. Unlike an individual adjudication, a rulemaking proceeding provides *all* interested persons — the general public as well as licensees — a ready avenue to submit formal comments for the agency's consideration and response. Such extensive public participation is especially suitable in a rulemaking, for the

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[10] *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 474 (2001), quoting *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 343 (1999), citing *Heckler v. Campbell,* 461 U.S. 458, 467 (1983).

[11] *Oconee* at 343, quoting *Heckler* at 467.

[12] *Yankee Nuclear*, CLI-98-21, 48 NRC at 211 n.14. *See also* 10 C.F.R. § 2.758. We note that CAN was an intervenor in the *Yankee Nuclear* case.

[13] *See Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station), ALAB-161, 6 AEC 1003, 1010 (1973), *aff'd*, CLI-74-2, 7 AEC 2 (1974), *aff'd sub nom. Citizens for Safe Power v. NRC,* 524 F.2d 1291 (D.C. Cir. 1975). *See also Dairyland Power Cooperative* (La Crosse Boiling Water Reactor), LBP-82-58, 16 NRC 512, 522 (1982) (A showing that releases comply with 10 C.F.R. Part 50, Appendix I design objectives establishes conformance to ALARA requirement in regulations and ''it follows that the emissions are . . . [not] inimical to public health and safety.'')

[14] ''Any interested person may petition the Commission to issue, amend or rescind any regulation.'' 10 C.F.R. § 2.802(a). *See Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-8, 29 NRC 399, 416 (1989) (''An adjudicatory licensing hearing is not a permissible forum for a challenge to Commission regulations. . . . Such a challenge may be brought by means of a petition for rulemaking.'')

[15] 10 C.F.R. § 2.802(d).

final rule will apply to all licensees, unless special circumstances are shown, as described below.

Although CAN's adjudicatory petition bears some resemblance to a rule-making petition, CAN has not expressly asked for a generic revision to rules involving all sites where children could potentially be exposed to radiation from decommissioning activities. It would be unfair to CY (and all other interested persons) to consider, in an individual adjudicatory proceeding, a rule change that CAN has not formally pursued. Adjudications do not provide a forum to consider rule changes.

2. Rule Waiver Request

When special circumstances exist at a particular site, our adjudicatory rules provide a mechanism for requesting a waiver of an otherwise controlling safety regulation. In that case, a party to an individual adjudicatory proceeding may request a waiver for that proceeding only.[16] ''The sole ground for petition for waiver or exception shall be that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted.''[17] Waiver of a Commission rule is simply not appropriate for a generic issue.[18]

Here, CAN says that 10 C.F.R. § 20.1402's 25-mrem/year standard is inadequate to protect children from a latent cancer risk. But this cancer risk on its face is a generic concern having no singular significance at Haddam Neck. Without referring to any special circumstances peculiar to the Haddam Neck site, CAN simply asks the Commission to reconsider the standard itself.[19] We will not do so in this adjudicatory proceeding.[20] Parenthetically, we must point out that the

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[16] *See* 10 C.F.R. § 2.758(b).

[17] *Id. See also* note 9.

[18] *See Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-80-16, 11 NRC 674, 675 (1980).

[19] ''Citizens Awareness Network Petition for Consideration of Whether 25 mrem/Year Dose Standard Ensures Decommissioning Activities Are Not Inimical to the Health and Safety of Children in Satisfaction of 10 C.F.R. § 50.82(a)(10) and Request To Direct the Licensing Board to Accept Amended Contention 6.1,'' at 7 (Apr. 14, 2003) (''Petition'').

[20] The correct way to request a rule waiver is by application to the Board, not directly to the Commission. Only if the Board determines that the petitioner has made ''a prima facie showing'' that the application of the specific Commission rule or regulation to ''a particular aspect . . . of the subject matter of the proceeding would not serve the purposes for which the rule or regulation was adopted and that application of the rule or regulation should be waived or an exception granted'' will the Board certify the matter to the Commission for decision. *See* 10 C.F.R. § 2.758(c)-(d).

EPA report[21] that CAN points to is a *draft* marked ''DRAFT — Do not cite or quote'' on each page. It does not appear to us to call into question our current 25-mrem/year standard. The draft document applies to carcinogens, not ionizing radiation; moreover, there is nothing new in the draft that was unknown when the Commission adopted the 10 C.F.R. Part 20, Subpart E, site release criteria.[22]

B. Amended Contention 6.1

In conjunction with its challenge to the decommissioning dose standard, CAN has requested that the Commission direct the Board to accept Amended Contention 6.1. As CAN recognizes, consideration of Amended Contention 6.1 ''requires the Licensing Board to evaluate the adequacy of the NRC's current decommissioning standard of 25 mrem/year. The Licensing Board is precluded from undertaking such an evaluation unless the Commission either changes the standard or directs the Licensing Board to undertake the evaluation.''[23] Because we are denying CAN's petition (via this Order), we direct the Board to reject CAN's Amended Contention 6.1.

III. CONCLUSION

For the foregoing reasons, the Commission (1) *denies* CAN's petition to reconsider the dose standard set out in 10 C.F.R. § 20.1402; (2) *denies* CAN's request to direct the Board to accept Amended Contention 6.1; and (3) *directs* the Board to reject CAN's Amended Contention 6.1.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 2d day of July 2003.

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[21] *See* Draft EPA/630/R-03-003, ''Supplemental Guidance for Assessing Cancer Susceptibility from Early-Life Exposure to Carcinogens'' (Feb. 28, 2003).

[22] *See generally* Final Rule: ''Radiological Criteria for License Termination,'' 62 Fed. Reg. 39,058 (July 21, 1997).

[23] Petition at 1.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 72-22-ISFSI**

PRIVATE FUEL STORAGE, L.L.C.
(Independent Spent Fuel Storage Installation) **August 15, 2003**

COMMISSION PROCEEDINGS: APPELLATE REVIEW

RULES OF PRACTICE: PETITION FOR REVIEW; APPELLATE REVIEW; STANDARD OF REVIEW

Review of an initial decision such as LBP-03-8 ''may be granted in the discretion of the Commission, giving due weight to the existence of a substantial question with respect to the following considerations, as set forth in 10 C.F.R. § 2.786(b)(4):

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
> (iii) A substantial and important question of law, policy or discretion has been raised;
> (iv) The conduct of the proceeding involved a prejudicial procedural error; or
> (v) Any other consideration which the Commission may deem to be in the public interest.''

COMMISSION PROCEEDINGS: APPELLATE REVIEW

RULES OF PRACTICE: PETITION FOR REVIEW; APPELLATE REVIEW; STANDARD OF REVIEW

Review of an initial decision such as LBP-03-8 is purely discretionary with the Commission. *See Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-12, 46 NRC 52, 53 (1997).

RULES OF PRACTICE: APPELLATE FILINGS; APPELLATE REVIEW; PETITION FOR REVIEW

Petitioner nowhere challenges the Board's ultimate fact finding that, even were the storage casks at the PFS facility to tip over in a design basis seismic event, the spent fuel canisters inside the casks would not break or melt, there would be no release of radioactive material, and the seismic event would thus not cause an exposure at the site boundary in excess of Commission's regulatory dose limits. Without a challenge to this ultimate fact finding, its petition for review amounts to a request that we consider a series of Board determinations that raise no bottom-line safety concerns. This alone would justify rejecting the petition.

STAFF REVIEW: MINISTERIAL

Any further Staff review after this adjudication will involve mere verification that PFS has satisfied its specified design criteria, will be ''ministerial'' in nature, and will thus not deprive Utah of a required hearing opportunity.

LICENSE CONDITIONS

The Commission cannot accept Utah's assertion that the Board should have combined PFS's various commitments regarding soil-cement into a set of license conditions. Those commitments are set forth in PFS's Safety Analysis Report and are therefore already part of the licensing basis of the facility. *See generally Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9 (2001). PFS, if granted its license, must comply with those commitments — regardless of the fact that they do not take the form of formal license conditions. *See generally Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 235-36 (2001). If PFS subsequently wished to change those commitments to any significant extent, it would need to file a license amendment request (*see* 10 C.F.R. § 72.48(c)(1), (2)), which Utah could then challenge by seeking a hearing.

RULES OF PRACTICE: STANDARD OF REVIEW; BURDEN OF PROOF

Without a showing that a Commission acceptance of Utah's ''conservatism'' argument would necessitate an overturning of the Board's ruling on the ''exemption'' issue, Utah's argument cannot be considered a ''substantial question'' under 10 C.F.R. § 2.786(b)(4).

EVIDENCE

RULES OF PRACTICE: EVIDENCE

FINDINGS OF FACT

RULES OF PRACTICE: APPELLATE REVIEW; STANDARD OF REVIEW; FINDING OF FACT

Although the Commission certainly has authority to make its own *de novo* findings of fact (*see, e.g., Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1087 n.12 (1983); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 403-04, *reconsideration denied,* ALAB-359, 4 NRC 619 (1976)), the Commission generally does not exercise that authority where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact. *See, e.g., Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 382 (2001); *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 45 (2001); *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93 (1998); *Kenneth G. Pierce* (Shorewood, Illinois), CLI-95-6, 41 NRC 381, 382 (1995). *See generally Dominion Nuclear Connecticut, Inc.* (Millstone Power Station, Unit 3), CLI-02-22, 56 NRC 213, 222 (2002). Our standard of ''clear error'' for overturning a Board's factual finding is quite high. As we stated when denying an NRC Staff petition for review in *Kenneth G. Pierce:*

> The Staff's petition . . . demonstrates only that the record evidence in this case may be understood to support a view sharply different from that of the Board. The Staff's petition [for review] does not show that the Board's own view of the evidence was ''clearly erroneous'' — i.e., that its findings were not even ''plausible in light of the record viewed in its entirety.'' *Anderson v. Bessemer City,* 470 U.S. 564, 573-76 (1985). This is fatal to a petition for review resting solely on the ''clearly erroneous'' argument.

CLI-95-6, 41 NRC at 382. *See also Aharon Ben-Haim, Ph.D,* CLI-99-14, 49 NRC 361, 364 (1999) (rejecting the Staff's petition for review despite the Commission's conclusion that ''the Staff presents colorable arguments'').

RULES OF PRACTICE: EVIDENCE

EVIDENCE: CREDIBILITY; WITNESSES

FINDINGS OF FACT

RULES OF PRACTICE: FINDING OF FACT; WITNESSES (CREDIBILITY)

Our deference to the Board as factfinder is particularly great where, as here, the Board bases its findings of fact in significant part on the credibility of the witnesses. *See, e.g., Shearon Harris,* CLI-01-11, 53 NRC at 388; *Hydro Resources,* CLI-01-4, 53 NRC at 46, 45; *Aharon Ben-Haim, Ph.D,* CLI-99-14, 49 NRC at 364. The Board's determinations regarding the exemption request turned at least in part on the Board's consideration of the two expert witnesses' demeanor, credentials, and testimony. Under these circumstances, we see no reason to second-guess the Board's credibility determinations or to find them ''clearly erroneous.''

EVIDENCE

FINDINGS OF FACT

RULES OF PRACTICE: FINDING OF FACT

Utah agrees that the issue whether to assume a 5000-year or a 10,000-year earthquake turns on whether the PFS site can be described as ''high-seismicity.'' This latter question is, in turn, an issue on which the record contains conflicting evidence — the seismic study performed by Geomatrix (on which the Staff and PFS rely) and a set of four pieces of evidence (on which Utah relies). Given that the record contains significant evidence supporting the Staff's view of the ''high seismicity'' issue — namely, the Geomatrix study — we cannot conclude that, under 10 C.F.R. § 2.786(b)(4)(i), the Staff was wrong in using a 5000-year earthquake as a baseline, or that the Board clearly erred in approving the Staff's decision to grant an exemption based in part on the Geomatrix analysis and the 5000-year earthquake. Our reluctance to second-guess a Board factual finding under these circumstances is heightened by an additional factor: Utah itself ''acknowledges that the Geomatrix investigators who conducted the [study] for the PFS site . . . are highly competent [and] that Geomatrix conducted an adequate [study] to depict the potential hazard at the PFS site.''

RULES OF PRACTICE: BURDEN OF PROOF

The mere assertion that safety margins will be ''greatly diminished'' does not, without more, equate to an assertion that the Board made a ''clearly erroneous'' finding of fact. 10 C.F.R. § 2.786(b)(4)(i). After all, a safety margin at an ISFSI could be ''greatly diminished'' yet still provide a level of protection sufficient to satisfy our Part 72 safety requirements.

REGULATIONS: INTERPRETATION (10 C.F.R. §§ 72.104(a) AND 72.106(b))

RULES OF PRACTICE: SEISMOLOGY

In arguing that the Board erred in interpreting the 5-rem accident dose limit in 10 C.F.R. § 72.106(b) as applying only during the site's operational hours, Utah claims that the Board ignored the difference in the wording of section 72.104(a)'s operating conditions (''a real individual'') and section 72.106(b)'s accident conditions (''any individual''). Utah's argument regarding the difference between the terms ''any individual'' and ''any real individual'' has some linguistic force. It is, however, at odds with our current reality-based risk-informed regulatory philosophy. It is also unsupported by this agency's regulatory interpretations of sections 72.104(a) and 72.106(b). In 1995, the Commission rejected a rulemaking petition that we amend section 72.104(a) along the same lines as Utah now suggests for interpreting section 72.106(b). The petitioner there had essentially suggested that we set dose limits in a way that would protect ''an imaginary individual . . . continually present at the boundary of the controlled area'' of an ISFSI. In declining, we enunciated the general principle that ''[t]he NRC regulates radiation doses on the basis of real people in proximity to the boundary of the controlled area.'' Maryland Safe Energy Coalition; Denial of Petition for Rulemaking, 60 Fed. Reg. 38,286, 38,288 (July 26, 1995). We see no more reason to vary from this general principle when interpreting section 72.106(b) than when interpreting 72.104(a).

Utah's interpretation likewise fails to take into account the NRC Staff's reality-based interpretation of the accident dose standard in section 72.106(b). The Staff guidance in NUREG-1567 assumes that the ''individual'' remains at the site boundary for 30 days, not 365 days. *See* NUREG-1567, ''Standard Review Plan for Spent Fuel Dry Storage Facilities,'' at p. 9-15 (March 2000). This assumption is based on common sense — that protective actions would assure that any person so close to the boundary would be evacuated or otherwise protected if the casks cannot be ''righted'' within 30 days (720 hours). Considered in this light, the Board's decision to accept PFS's 2000-hour occupancy time was actually generous to Utah.

RULES OF PRACTICE: EVIDENCE

EVIDENCE: CREDIBILITY; WITNESSES

FINDINGS OF FACT

RULES OF PRACTICE: FINDING OF FACT; WITNESSES (CREDIBILITY)

Utah criticizes the Board for relying on testimony of witnesses who purportedly had no familiarity with the site or the land use in Skull Valley and also for ignoring testimony regarding possible future residential land use in Skull Valley. This argument, however, goes to the credibility of the parties' witnesses. For the reasons set forth earlier in this Memorandum and Order, we decline to second-guess the Board's assessment of the witnesses' credibility. The Board's credibility discussion appears to us both reasonable and well supported by record evidence, and we will not overturn it.

MEMORANDUM AND ORDER

The State of Utah (Utah) has filed with the Commission a petition for review of the Atomic Safety and Licensing Board's Partial Initial Decision, LBP-03-8, 57 NRC 293 (2003). Both the NRC Staff and Private Fuel Storage (PFS) oppose Utah's petition. For the reasons set forth below, we deny Utah's petition.

I. BACKGROUND

This case stems from PFS's application to build and operate an independent spent fuel storage installation (ISFSI) to house casks of spent fuel rods from nuclear reactors. Utah sought and received a hearing in this proceeding, and has opposed PFS's application on many grounds. Among these are six lines of argument challenging the seismic sufficiency of PFS's proposed facility. The gravamen of these seismic challenges is that the facility as currently designed would not adequately protect the spent fuel casks, given the frequency and severity of earthquakes that might affect the facility.

The Board in LBP-03-8 ruled against all six lines of argument. The Board ultimately concluded that the casks containing the spent fuel rods would not tip over during a design basis earthquake and that, even if one or more casks did tip over, the spent fuel canisters inside the casks would still not break or melt and the Commission's regulatory dose limits would not be exceeded. Utah now seeks Commission review of three rulings in LBP-03-8. Specifically, Utah objects to:

(a) the Board's ruling that PFS's license may be issued prior to completion of PFS's soil-cement testing program, together with the Board's refusal to impose test-related conditions on PFS's license;

(b) the Board's approval of the NRC Staff decision exempting PFS from the deterministic standard for predicting seismic ground motions;[1] and

(c) the Board's use of what Utah considers an erroneous exposure duration to compute radiation doses at the facility boundary.[2]

II. DISCUSSION

At this juncture, the decision before us concerns application of the Commission's standards for granting review. Review of an initial decision such as LBP-03-8 ''may be granted in the discretion of the Commission, giving due weight to the existence of a substantial question with respect to the following considerations:

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
> (iii) A substantial and important question of law, policy or discretion has been raised;
> (iv) The conduct of the proceeding involved a prejudicial procedural error; or
> (v) Any other consideration which the Commission may deem to be in the public interest.''[3]

Review of an initial decision such as LBP-03-8 is purely discretionary with the Commission.[4]

Before reaching Utah's three arguments, we address briefly one important omission from its petition. Utah nowhere challenges the Board's ultimate fact finding that, even were the storage casks at the PFS facility to tip over in a design basis seismic event, the spent fuel canisters inside the casks would not

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[1] Also known as ''ground acceleration,'' and defined as the movement of the earth's surface from earthquakes or explosions. *See* United States Geological Survey, ''Earthquake Glossary,'' available at *http://earthquake.usgs.gov/image_glossary.*

[2] *See* Utah's Petition for Review of LBP-03-8, dated June 11, 2003.

[3] 10 C.F.R. § 2.786(b)(4).

[4] *See Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-12, 46 NRC 52, 53 (1997).

break or melt,[5] there would be no release of radioactive material,[6] and the seismic event would thus not cause an exposure at the site boundary in excess of the Commission's regulatory dose limits.[7] Without a challenge to this ultimate fact finding, Utah's petition for review amounts to a request that we consider a series of Board determinations that raise no bottom-line safety concerns. This alone would justify rejecting the petition. Nonetheless, as we frequently do when denying petitions for review in complex cases,[8] we explain in some detail below why we find Utah's petition unpersuasive and not warranting further briefing and plenary review under section 2.786(b)(4).

A. Post-Licensing Completion of the Soil-Cement Testing Program; Licensing Conditions

As previously noted, Utah objects to the Board's ruling that PFS's license may be issued prior to completion of PFS's soil-cement testing program, and also to the Board's refusal to impose test-related conditions on PFS's license.

As the Board explained in LBP-03-8, sites such as that of the PFS proposed facility ''require an evaluation to determine their potential for instability due to vibratory ground motions [i.e., earthquakes], and site-specific investigations must be conducted to demonstrate that site soil conditions are adequate to sustain the proposed foundation loads.''[9] PFS proposes to use mixtures of cement and local soil to improve the qualities of the soil under and around both the foundation of the Canister Transfer Building (where the fuel rod canisters would be transferred from the transportation casks to the storage casks) and the 500 concrete pads on which as many as 4000 storage casks would rest. PFS has established design requirements for these mixtures[10] which, if met, would protect the pads and the

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[5] *See* LBP-03-8, 57 NRC at 298, 506 (finding F.65), 507-08 (finding F.67(5)).

[6] *See id.* at 507-08 (finding F.67(5)).

[7] *See, e.g., id.* at 533 (finding G.6) (''there would be no releases of radioactivity even in the event of a postulated tip-over'' of casks).

[8] *See Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370 (2001), *petition for review denied sub nom. Orange County v. NRC,* 2002 WL 31098379 (D.C. Cir. 2002).

[9] *See* LBP-03-8, 57 NRC at 317, *citing* 10 C.F.R. § 72.102(c)-(d). Foundation loads can be either static (the weight of the structures that the foundation supports) or dynamic (forces, such as earthquakes or tornados, that act upon the foundation).

[10] The Board sets forth these requirements in LBP-03-8, 57 NRC at 397-98 (finding C.5).

Canister Transfer Building from the effects of a design basis earthquake.[11] Indeed, all parties — including Utah — have agreed that ''these design requirements can be met by the use of appropriate soil-cement mixtures[, and Utah's] soil-cement expert testified that he knew of nothing that would preclude PFS from meeting its design objectives for the soil-cement program.''[12]

PFS has likewise identified the testing program that it plans to use to establish the acceptability of its mixtures, and all parties — again including Utah — have agreed that PFS ''has developed a suitable program, based on appropriate industry standards, for testing the properties of the soil-cement,''[13] that ''the program is based on appropriate industry standards . . . and . . . includes the proper tests and suitable test methodology,''[14] and further that ''the program to which PFS has committed . . . is reasonable and should lead to proper soil-cement and cement-treated soil installation.''[15] PFS has not, however, completed this program for testing various soil and cement mixtures to determine which one will best meet the design requirements.

Utah is concerned that PFS will not finish this testing until after the conclusion of the adjudicatory hearing and that this delay would preclude Utah from challenging whether the testing program succeeded in proving the seismic portion of PFS's design concept.[16] According to Utah, the combination of this delay and the ''extra-legal post-license discretionary Staff evaluation'' of ''whether PFS's soil testing program will prove its design concept''[17] would deprive Utah of its hearing rights, in violation of the District of Columbia Circuit's ruling in *Union*

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[11] *See id.* at 397 (finding C.3) (citation omitted):

> PFS intends to use soil-cement and cement-treated soil in three different ways. In the area directly underneath the concrete pads upon which the storage casks rest, cement-treated soil is to be used as a cohesive material that will be strong enough to resist the sliding forces generated by the [design basis earthquake]. The cement-treated soil will provide bonding with the bottom of the concrete pad above it and with the clay soils beneath, so as to transfer the horizontal earthquake forces downward from the pad and into the underlying clay soils. Soil-cement is to be used in the area around and between the cask storage pads. There, the function of the soil-cement is to support the weight of the transporter vehicle that is used to deliver storage casks to the pad area. Soil-cement was chosen for this application so that the soil materials would not need to be wasted and replaced with structural fill. Finally, soil-cement is to be placed around the [Canister Transfer Building] foundation mat, extending outward from the mat a distance equal to the associated mat dimension, to provide additional passive resistance against sliding forces in the event of a [design basis earthquake].

[12] *Id.* at 398 (finding C.6) (citation omitted).

[13] *Id.* at 327. *Accord id.* at 408 (finding C.47).

[14] *Id.* at 408 (finding C.48).

[15] *Id.* (finding C.49).

[16] *See* Petition at 4.

[17] *Id.*

of Concerned Scientists v. NRC.[18] The D.C. Circuit there ruled that the Atomic Energy Act's hearing requirement[19] applies to NRC Staff assessments of test results if those assessments entail more than a limited determination whether a licensee's test results met ''established objective 'acceptance criteria.' ''[20] Utah also objects to the Board's failure to compile PFS's soil-cement commitments into a set of test-related license conditions.[21]

We disagree that Utah's hearing rights will be curtailed. In fact, Utah has already exercised its hearing rights quite vigorously on this issue during the lengthy proceeding before the Board. Utah has had every opportunity to litigate the adequacy of both PFS's design and the soil testing methodology to be used to demonstrate that PFS has met the design. Utah incorrectly maintains that the NRC Staff will perform a post-licensing evaluation of ''whether PFS's soil testing program will prove its design concept.''[22] The Staff has, in fact, already completed its review of PFS's design and analyses, and has concluded that the design would be safe and that the material properties used in the design are achievable.[23] Therefore, as the Staff points out, ''PFS has already 'proven its design.' ''[24] Any further Staff review will involve mere verification that PFS has satisfied its specified design criteria, will be ''ministerial'' in nature,[25] and will thus not deprive Utah of a required hearing opportunity.

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[18] 735 F.2d 1437 (D.C. Cir. 1984), *cert. denied sub nom. Arkansas Power & Light Co. v. Union of Concerned Scientists,* 469 U.S. 1132 (1985).

[19] 42 U.S.C. § 2239(a).

[20] 735 F.2d at 1451.

[21] *See* Petition at 4-5, 6.

[22] *Id.* at 4.

[23] *See* Staff's Response to Utah's Petition for Review of LBP-03-08, dated June 26, 2003, at 5 n.5, *citing* Transcript (Tr.) at 11,016-17, 11,021.

[24] *Id., citing* Tr. 11021 (Ofoegbu).

[25] *See Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-00-8, 51 NRC 227, 240 (2000) (''some matters may . . . be left for post-licensing action, particularly activities that are simply ministerial or by their very nature require post-licensing verification by our Staff''). *Accord Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23, 33-34 (2000). *See also Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-940, 32 NRC 225, 235-36 (1990). Verification that a licensee complies with preapproval testing criteria is a highly technical inquiry not particularly suitable for hearing:

> [T]he Staff approval Appendix H calls for is not the type of determination that lends itself readily to an adjudicatory hearing. Under Appendix H, the Staff evaluates a proposed withdrawal schedule in terms of objective, technical preestablished criteria. . . . Confirming compliance with a self-implementing, detailed, industry standard does not call into play the various common reasons for requiring an adjudicatory hearing under Subpart G of 10 C.F.R. Part 2, such as the need to weigh various parties' observations or the utility of cross-examination.

(Continued)

Further, we cannot accept Utah's assertion that the Board should have combined PFS's various commitments regarding soil-cement into a set of license conditions.[26] Those commitments are set forth in PFS's Safety Analysis Report and are therefore already part of the licensing basis of the facility.[27] PFS, if granted its license, must comply with those commitments — regardless of the fact that they do not take the form of formal license conditions.[28] Indeed, PFS concedes as much.[29] If PFS subsequently wished to change those commitments to any significant extent, it would need to file a license amendment request,[30] which Utah could then challenge by seeking a hearing.

Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-96-13, 44 NRC 315, 330 (1996). *Cf.* 5 U.S.C. § 554(a)(3).

[26] In sum, PFS made the following commitments regarding soil-cement testing. PFS has agreed to follow the procedures set up in the Engineering Services Scope of Work for Laboratory Testing of Soil-Cement Mixes (ESSOW). The ESSOW actually used Nuclear Regulatory Guide 1.138 (Laboratory Investigations of Soils and Rocks for Engineering Analysis and Design of Nuclear Power Plants) as a source of guidance with respect to laboratory procedures and standards, in addition to citing numerous standards issued by the American Society for Testing and Materials. The laboratory testing program is being conducted by Applied Geotechnical Engineering Consultants, which will fully implement QA category I requirements of the ESSOW. PFS has also committed to follow the standards, procedures, and other recommendations listed in the industry standard publication on soil cement, American Concrete Institute Report ACI 230.1R-90 (1998). Further, based on ESSOW and ACI 230, PFS has committed that its test program will include the critical and fundamental tests for soils, such as soil index property tests, moisture-density tests, durability tests, compressive strength tests, and direct shear tests. In addition, PFS has committed to ensure that sufficient bonding is achieved. In this respect, PFS plans to use the techniques described in both the ACI 230 Report and ''Bonding Study on Layered Soil Cement,'' REC-ERC-76-16, U.S. Bureau of Reclamation, Denver, CO, Sept. 1976. These techniques include (1) minimizing the time between placement of successive layers or ''lifts'' of soil-cement, which will have a compacted thickness of approximately 6 inches; (2) moisture conditioning to facilitate the proper curing of the soil-cement; (3) producing a roughened surface on the soil-cement prior to the placement of additional lifts or concrete foundations; and (4) using a dry cement or cement slurry to enhance the bonding of concrete or new soil-cement layers to underlying layers that have already set. *See* LBP-03-8, 57 NRC at 405-07 (findings C-33 to C-44).

[27] *See generally Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9 (2001).

[28] *See generally Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 235-36 (2001) (ruling that not all license commitments must be converted into license conditions in order to be enforceable, and declining to impose a license condition requiring the licensee to follow its NRC-approved emergency plan).

[29] *See* PFS's Response in Opposition to Utah's Petition for Review of LBP-03-08, dated June 23, 2003, at 6.

[30] *See* 10 C.F.R. § 72.48(c)(1), (2).

B. Staff Decision Exempting PFS from the Deterministic Standard for Predicting Seismic Ground Motions

Utah challenges the Board's approval of the Staff's decision to exempt PFS from the regulatory requirement that it use a deterministic standard when establishing the design basis earthquake that the PFS facility must be designed to withstand. These regulatory requirements are set forth in 10 C.F.R. §§ 72.92, 72.102, and 72.122 and 10 C.F.R. Part 100, Appendix A.

1. Background

Section 72.92 of our regulations contains a general requirement that all ISFSI applicants must evaluate the ''[n]atural phenomena that may exist or that can occur in the region of a proposed [ISFSI] site'' and must also determine those phenomena's ''potential effects on the safe operation of the ISFSI . . . .''[31] Another provision, section 72.122, more particularly requires applicants to design their safety-significant structures, systems, and components ''to withstand the effects of natural phenomena such as earthquakes. . . .''[32]

And yet another provision, section 72.102, sets forth quite specific requirements that applicants must satisfy to assure the Commission that their proposed facilities could withstand earthquakes. Under 10 C.F.R. § 72.102(b) and (f), an ISFSI located west of the Rocky Mountain Front (an area that includes the proposed location of the PFS facility at issue in this proceeding) must meet the same seismic evaluation and design standards — found in Appendix A of 10 C.F.R. Part 100 — as apply to nuclear power facilities. Appendix A requires a nuclear power facility applicant to use a *deterministic* seismic hazard analysis when calculating the maximum credible earthquake (or ''Safe Shutdown Earthquake''); Appendix A then requires the applicant to design the facility to withstand an earthquake of such intensity. This deterministic approach does not consider the earthquake's probability, or the uncertainties associated with the identification and characterization of an earthquake at the site, or the uncertainties in ground motion modeling.[33]

In 1996, however, the Commission amended Part 100 (though not Appendix A) to allow nuclear power reactor licensees to use a *probabilistic* (or risk-informed)

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[31] 10 C.F.R. § 72.92(a).

[32] 10 C.F.R. § 72.122(b)(2)(i).

[33] *See* LBP-03-8, 57 NRC at 492 (finding F.10). *See also id.* at 514 (finding F.87) (unlike a deterministic analysis, a probabilistic analysis ''incorporates the contribution of all potential seismic sources and considers the range of source-to-site distances, earthquake magnitudes, and the randomness of earthquake ground motions . . . [and also] evaluates uncertainty in the assessment of seismic hazards'').

analysis that accounts not only for the intensity of a potential seismic event but also for the probability that a seismic event of a particular intensity will occur within a given time.[34] The Commission similarly amended Part 60 (applicable to high-level waste repositories) to allow the use of a probabilistic analysis.[35]

Because Part 72 has not been amended to permit ISFSI applicants to use the probabilistic approach allowed in Parts 100 and 60,[36] PFS submitted a request for an exemption from the requirement of section 72.102 that an applicant use a deterministic seismic hazard analysis.[37] PFS sought permission to use instead the probabilistic analysis described above. PFS initially sought an exemption that would permit it to calculate the magnitude of a seismic event with a recurrence interval of 1000 years.[38] However, in response to the NRC Staff's suggestion, PFS amended its request to use a 2000-year return period for all structures.[39] The NRC Staff, in its Safety Evaluation Report, subsequently approved PFS's amended request for an exemption.[40] The Staff's approval of a risk-informed approach reflected the Commission's — and Utah's own expert's — view that the consequences of failure at ISFSIs are far less severe than those at operating nuclear power plants.[41]

In this adjudication, the Commission granted Utah permission to challenge the Staff's approval of the exemption.[42] Utah's contention went to hearing, with

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[34] *See* Final Rule, ''Reactor Site Criteria Including Seismic and Earthquake Engineering Criteria for Nuclear Power Plants,'' 61 Fed. Reg. 65,157 (Dec. 11, 1996); 10 C.F.R. § 100.23(d)(1).

[35] *See* Final Rule, ''Disposal of High Level Radioactive Wastes in Geological Repositories; Design Basis Events, 61 Fed. Reg. 64,257 (Dec. 4, 1996). *See also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 461-62 (2001).

[36] The Commission is currently considering promulgation of a rule that would likewise permit Part 72 ISFSI applicants to use probabilistic rather than deterministic seismic hazard analyses. *See* Proposed Rule, ''Geological and Seismological Characteristics for Siting and Design of Dry Cask Independent Spent Fuel Storage Installations and Monitored Retrievable Storage Installations,'' 67 Fed. Reg. 47,745 (July 22, 2002). Under the proposed new Part 72 rules, the applicant would use a seismic hazard analysis to determine the maximum intensity of a potential earthquake likely to occur with a 2000-year ''return period,'' i.e., the largest earthquake that would be expected to occur at a particular site every 2000 years.

[37] PFS submitted its exemption request pursuant to 10 C.F.R. § 72.7, which provides for exemptions from requirements of Part 72 so long as the exemption is ''authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.''

[38] *See Private Fuel Storage,* CLI-01-12, 53 NRC at 463, *citing* PFS Exemption Request at 1-2.

[39] *See id.* at 463; LBP-03-8, 57 NRC at 490 (finding F.5).

[40] *See* LBP-03-8, 57 NRC at 490 (finding F.5). The Staff's action does not, however, mean that the exemption is now in effect. As the Staff points out, the exemption will be incorporated into the PFS license and will become effective only if and when the Staff issues the license. *See* NRC Staff's Response at 9 n.10.

[41] *See* LBP-03-8, 57 NRC at 498-99 (findings F.34-F.35).

[42] *Private Fuel Storage,* CLI-01-12, 53 NRC 459.

the Board ultimately upholding the Staff's approval.[43] The Board accepted PFS's two-pronged justification for the exemption:

> The first principle of a risk-informed seismic design is the use of a risk-graded approach to the design. The risk-graded approach imposes graded requirements on a safety structure. Under this approach, facilities and structures with more severe failure consequences are required to have low probabilities of failure, while facilities and structures with lesser failure consequences can have larger probabilities of failure. In other words, more important facilities and structures are designed to fail less frequently, while less important facilities and structures are allowed to have a higher failure probability.[44]
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> * * * *
>
> The second principle of the risk-informed seismic safety analysis is to apply a ''two-handed approach'' to assess seismic safety. This ''two-handed approach'' involves the consideration of both the mean annual probability of exceedance (MAPE [that is, the inverse of the mean ''return period'' described in note 36, *supra*]) of the [design basis earthquake] and the level of conservatism incorporated in the design codes, standards, and procedures (also referred to as ''risk reduction factors''). . . . Under this ''two-handed approach'' if there is significant conservatism in the second hand (risk reduction factors), then a lower standard can be permitted to be set by the first hand (MAPE).[45]

The Board concluded that

> the significant safety margins embedded in the ''two handed approach'' provide reasonable assurance that the 2000-year mean return period is not only adequate, but is in practice more stringent than . . . Utah['s own] 2500-year [earthquake] standard [as applied to certain buildings and bridges in the state]. Thus, the Utah standard provides no basis for disapproval of the seismic exemption request.[46]

The Board also accepted the Staff's independent reasons for approving the exemption,[47] i.e., (1) previous Commission actions demonstrated the agency's approval of the use of a probabilistic hazards analysis of the kind PFS conducted; (2) the Department of Energy, in its DOE-STD-1020-94, used a similar 2000-year

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[43] LBP-03-8, 57 NRC at 366.

[44] *Id.* at 358. *See also id.* at 498 (finding F.33).

[45] *Id.* at 359 (citation and footnote omitted). *See also id.* at 499 (finding F.36). Utah '' 'emphatically' agreed on the appropriateness of applying this . . . two-handed . . . approach to evaluating the seismic safety of the PFS facility.'' *Id.* at 500-01 (finding F.44).

[46] *Id.* at 366-67. *See also id.* at 495-96 (findings F.21-F.24) regarding Utah's proposed 2500-year return period earthquake.

[47] *See id.* at 363-66.

return period when examining ISFSIs;[48] (3) the Commission in 1998 approved a 2000-year return period earthquake as a design basis ground motion for the TMI-2 ISFSI;[49] and (4) the Staff concluded that PFS had provided ''an overly conservative seismic hazard assessment, which added an additional margin of safety to [PFS's] design.''[50]

2. Discussion

Utah now seeks Commission review of the Board's rulings on the exemption request.[51] However, Utah challenges only the final of the Staff's four grounds for approving the exemption request — i.e., the Staff's finding that PFS had provided ''an overly conservative seismic hazard assessment.''[52] But Utah does not explain why a finding in Utah's favor on this point would outweigh the three unchallenged bases and thereby yield a result different from the one the Board reached regarding the Staff's approval of PFS's exemption request. Without a showing that a Commission acceptance of Utah's ''conservatism'' argument would necessitate an overturning of the Board's ruling on the ''exemption'' issue, Utah's argument cannot be considered a ''substantial question'' under 10 C.F.R. § 2.786(b)(4). We are, in any event, unpersuaded that the Staff and the Board erred in concluding that PFS had provided a conservative seismic hazard assessment.[53]

a. Witness Credibility

Utah's petition questions the Board's reliance on the testimony of a Staff witness (Dr. John A. Stamatakos), rather than on Utah's ''more credentialed and . . . more knowledgeable'' witness[54] (Dr. Walter J. Arabasz) and juxtaposes the arguments and evidence sponsored by these two witnesses in an attempt to show that Utah's witness was more persuasive than the Staff's witness.[55]

Although the Commission certainly has authority to make its own *de novo* findings of fact,[56] we generally do not exercise that authority where a Licensing Board has issued a plausible decision that rests on carefully rendered findings of

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[48] *See id.* at 521-23 (findings F.110-F.114).

[49] *See id.* at 523-25 (findings F.115-F.120).

[50] *See id.* at 363-64, 514-15 (findings F.87-F.88).

[51] *See* Petition for Review at 7-17.

[52] *Id.* Utah's petition refers to, but does not challenge, grounds (2) and (3). *Id.* at 8.

[53] *See* LBP-03-8, 57 NRC at 363-64.

[54] Petition at 8-9.

[55] *Id.* at 11-14.

[56] *See, e.g., Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1087 n.12 (1983); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 403-04, *reconsideration denied,* ALAB-359, 4 NRC 619 (1976).

fact.[57] Our standard of ''clear error'' for overturning a Board's factual finding is quite high. As we stated when denying an NRC Staff petition for review in *Kenneth G. Pierce:*

> The Staff's petition . . . demonstrates only that the record evidence in this case may be understood to support a view sharply different from that of the Board. The Staff's petition [for review] does not show that the Board's own view of the evidence was ''clearly erroneous'' — i.e., that its findings were not even ''plausible in light of the record viewed in its entirety.'' *Anderson v. Bessemer City,* 470 U.S. 564, 573-76 (1985). This is fatal to a petition for review resting solely on the ''clearly erroneous'' argument.[58]

The Board in the instant case offered an intricate, 76-page discussion of the exemption issue; it obviously weighed with great care and in great detail all the evidence and testimony.[59] Our deference to the Board as factfinder is particularly great where, as here, the Board bases its findings of fact in significant part on the credibility of the witnesses.[60] The Board's determinations regarding the exemption request turned at least in part on the Board's consideration of the two expert witnesses' demeanor, credentials, and testimony.[61] Under these circumstances,

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[57] *See, e.g., Shearon Harris, supra* note 8, CLI-01-11, 53 NRC at 382; *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 45 (2001); *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93 (1998); *Kenneth G. Pierce* (Shorewood, Illinois), CLI-95-6, 41 NRC 381, 382 (1995). *See generally Dominion Nuclear Connecticut, Inc.* (Millstone Power Station, Unit 3), CLI-02-22, 56 NRC 213, 222 (2002) (''We ordinarily do not review fact-specific Board decisions, absent obvious error'').

[58] CLI-95-6, 41 NRC at 382. *See also Aharon Ben-Haim, Ph.D.,* CLI-99-14, 49 NRC 361, 364 (1999) (rejecting the Staff's petition for review despite the Commission's conclusion that ''the Staff presents colorable arguments'').

[59] *See* LBP-03-8, 57 NRC at 357-67, 489-531 (findings F.1-F.137). *Compare Shearon Harris,* CLI-01-11, 53 NRC at 388 (ruling that the Commission would not ''redo the Board's work'' where the Board had issued ''intricate and well-supported findings in a 42-page opinion'').

[60] *See, e.g., Shearon Harris,* CLI-01-11, 53 NRC at 388; *Hydro Resources,* CLI-01-4, 53 NRC at 46, 45; *Aharon Ben-Haim, Ph.D.,* CLI-99-14, 49 NRC at 364.

[61] Regarding general findings of credibility, *see* LBP-03-8, 57 NRC at 366 (''The Staff's explanations that the slip rate for the Wasatch Fault near Salt Lake City is likely to be 3 to 10 times larger than that of the Stansbury Fault near the PFS site is supported by expert testimony with appropriate analysis and available data''), 494-97 (findings F.16-F.31) (describing Drs. Stamatakos's and Arabasz's expert testimony regarding the classification of hazardous curves, and then explaining the Board's preference for Dr. Stamatakos's results), 525-29 (findings F.121-F.132) (describing Drs. Stamatakos's and Arabasz's expert testimony regarding probabilistic seismic analysis, and then explaining why the Board gave greater credence to the position espoused by Dr. Stamatakos), 529 (finding F.132) (addressing Dr. Stamatakos's credibility by ruling that ''we do not share the State's misgivings about the usefulness of Dr. Stamatakos' comparison of the seismic hazard curves produced by these three PSHA studies'').

we see no reason to second-guess the Board's credibility determinations or to find them ''clearly erroneous.''

b. Staff's Reliance on Design Basis Earthquakes for Western Power Plants

One of several baselines that the Staff used in determining the appropriate design basis earthquake for the proposed PFS facility was the design basis earthquake for a hypothetical nuclear power plant located at the same PFS site.[62] The Staff first calculated that the average design basis earthquake for five nuclear power plants in the western United States (specifically in California, Arizona, and Washington state) was a 5000-year quake.[63] Based on this conclusion, the Staff indicated that the NRC would require the hypothetical nuclear power plant at the PFS site to be likewise designed to withstand a 5000-year earthquake.[64] Then, based on the uncontested assumption that the consequences of failure at ISFSIs are far less severe than those at operating nuclear power plants, the Staff concluded that the design basis earthquake for the PFS facility could likewise be considerably less severe than the 5000-year quake that the hypothetical nuclear power plant would be designed to withstand.[65] The Staff established the earthquake severity level for the proposed PFS facility at 2000 years.[66]

Utah challenges both the Staff's conclusion that a hypothetical nuclear power plant located at the PFS site would be designed to withstand a 5000-year earthquake and also the Staff's underlying reliance on the average 5000-year design basis earthquakes used for the five western nuclear power plants.[67] Utah asserts that the Staff (and the Board) should have instead used a 10,000-year design basis earthquake benchmark for the hypothetical power plant.[68]

We do not believe Utah's challenge shows a ''clear error'' of fact as required by 10 C.F.R. § 2.786(b)(4)(i) and *Kenneth R. Pierce, supra.* Utah agrees that the issue whether to assume a 5000-year or a 10,000-year earthquake turns on whether the PFS site can be described as ''high-seismicity.''[69] This latter question is, in turn, an issue on which the record contains conflicting evidence — the seismic study performed by Geomatrix (on which the Staff and PFS rely) and a set of four pieces of evidence (on which Utah relies).[70] Given that the record contains significant

[62] *See id.* at 363-64.

[63] *See id.* at 493 (finding F.14), 520 (finding F.104).

[64] *See id.* at 493 (finding F.14).

[65] *See id.* at 498-99 (findings F.34-F.35), 519 (finding F.102).

[66] *See id.* at 521 (finding F.109).

[67] *See* Petition at 9-11. *See also* LBP-03-8, 57 NRC at 493 (finding F.14).

[68] *See* LBP-03-8, 57 NRC at 495-96 (findings F.21, F.25).

[69] *See id.* at 496 (finding F.25).

[70] *See* Petition at 10.

evidence supporting the Staff's view of the ''high seismicity'' issue — namely, the Geomatrix study — we cannot conclude that, under 10 C.F.R. § 2.786(b)(4)(i), the Staff was wrong in using a 5000-year earthquake as a baseline, or that the Board clearly erred in approving the Staff's decision to grant an exemption based in part on the Geomatrix analysis and the 5000-year earthquake.[71]

Our reluctance to second-guess a Board factual finding under these circumstances is heightened by an additional factor: Utah itself ''acknowledges that the Geomatrix investigators who conducted [the study] for the PFS site . . . are highly competent [and] that Geomatrix conducted an adequate [study] to depict the potential hazard at the PFS site.''[72]

c. Safety Margins

Utah also challenges directly both the Staff's and the Board's conclusion that Geomatrix's (i.e., PFS's) probabilistic seismic hazard assessment for its site was ''conservative''[73] (As noted at page 24, above, ''the level of conservatism incorporated in the design codes, standards, and procedures'' is a key element of the second principle of risk informed seismic safety analysis.) Utah first questions the Staff expert's slip tendency analysis (''a modeling technique designed to assess stress states and potential fault activity'')[74] and his comparison of ground motions at the PFS site with the sites in and around Salt Lake City.[75] Utah then goes on to question PFS's decision to design its facility to withstand only a 2000-year earthquake.

(i) SLIP TENDENCY ANALYSIS

Utah asserts that Staff expert Dr. Stamatakos, in his slip tendency analysis, extrapolated from inapposite data when positing the stress state in Skull Valley (the location of the proposed PFS facility). According to Utah, Dr. Stamatakos's extrapolation is flawed because he misrepresented some data, ignored other data, and inappropriately relied on two disparate methodologies of measuring and comparing slip rates for three different faults. From this, Utah concludes that both

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[71] To be sure, Utah's expert sees the situation differently. But this is not decisive. *See Kenneth G. Pierce,* CLI-95-6, 41 NRC at 382, quoted *supra* at 14. *See also Aharon Ben-Haim, Ph.D.,* CLI-99-14, 49 NRC at 364; *Claiborne,* CLI-98-3, 47 NRC at 93.

[72] LBP-03-8, 57 NRC at 497 (finding F.28).

[73] *See* Petition at 11-15. Utah does, however, agree that PFS's assessment is adequate. *See* LBP-03-8, 57 NRC at 528 (finding F.129).

[74] *See* LBP-03-8, 57 NRC at 525 (finding F.123).

[75] *See* Petition at 11-14.

the Staff and the Board erred in relying on Dr. Stamatakos's analysis as support for their conclusion that PFS's hazard analysis was conservative.[76]

Utah's argument is, however, undercut by its own statements that ''the Staff's interpretation of the stress state in Skull Valley would be one competing opinion in a [probabilistic seismic hazard analysis], subject to challenge by other experts . . . [and that] corresponding inferences the Staff makes from the slip tendency analysis about conservatism . . . are also arguable and not established conclusions.''[77] With these words, Utah essentially concedes that Dr. Stamatakos's views on this issue are neither fact nor fallacy. They are instead merely what they purport to be — expert opinion — and are thus fairly susceptible to a factual determination based on the Board's assessment of both the credibility of Dr. Stamatakos and the substance of his comments. For the reasons already set forth above, and also for the reasons provided by the Board,[78] we decline to second-guess the credibility determinations and fact findings of the Board on this matter.

(ii) GROUND MOTION COMPARISONS

Utah next challenges Dr. Stamatakos's peak ground motion (peak ground acceleration) comparisons to both the Salt Lake City area and to nine other sites in the Salt Lake Valley's I-15 corridor. Utah asserts that these comparisons are flawed and asks the Commission to reverse the Board's ruling that upheld them.[79]

Dr. Stamatakos compared Geomatrix's hazard analysis for the PFS site with the USGS's national earthquake hazard map for the Salt Lake City area, and he concluded that the PFS site would be 1.5 times more likely than Salt Lake City to experience an earthquake in which the ground would move at a particular rate of acceleration (here 0.5*g*).[80] Utah asserts that the Staff's failure to ''independently perform site-specific [probabilistic seismic hazard analysis] for the two sites''[81] renders the Staff's ''conservatism'' finding ''pure speculation.'' Although this argument is not a model of clarity, it appears to boil down to this: the Staff's comparison of the highly site-specific data in the PFS analysis with the far more approximate data in the USGS's Salt Lake City mapping is equivalent to

[76] *See id.* at 12-13.

[77] Utah's Proposed Findings of Fact and Conclusions of Law on United Contention Utah L/QQ, dated Sept. 5, 2002, at 206. *Accord* LBP-03-8, 57 NRC at 526 (finding F.124).

[78] *See* LBP-03-8, 57 NRC at 365-66, 528-29 (findings F.130-F.131).

[79] *See* Petition at 13-14. *See also* LBP-03-8, 57 NRC at 528 (finding F.127).

[80] The ''*g*'' is a unit of measurement for acceleration; 0.5*g* equates to an acceleration of 4.9 meters per second per second (m/s^2).

[81] Petition at 13.

comparing apples and oranges;[82] only a site-specific analysis of the Salt Lake City area would provide the data necessary for a valid apples-to-apples comparison; and the Staff has not performed such an analysis.

We find Utah's argument unconvincing. Utah fails to recognize that neither the Staff nor the Board was considering this comparison to be a dispositive set of data that would, without more, fully support the Staff's conclusion that the Geomatrix analysis was conservative. Rather the Staff was looking at this merely as a rough comparison that was only one of many pieces of information that the Staff used in reaching its conclusion that PFS's analysis was conservative. The Board likewise recognized this to be no more than a ''crude'' comparison[83] and consequently treated it as only one of a number of factors that together justified the conclusion that the PFS's hazard analysis was conservative.

We agree with the Staff and the Board that, up to a point, the comparison is fruitful. Admittedly, the USGS mapping appears to lack a specific nodule (measuring point) located the same distance from the Wasatch Fault (the major active fault near Salt Lake City)[84] as the PFS site is located from the East Fault (the fault nearest the PFS site) — 0.7 kilometer. The USGS mapping therefore cannot, for purposes of calculating earthquake hazard, provide data that are, strictly speaking, comparable to the data that Geomatrix provided for the PFS site located 0.7 kilometer from the East Fault. Still, the USGS mapping includes the entire area surrounding the Wasatch Fault and encompasses many points 0.7 kilometer from that fault. Therefore, the quantified value of the earthquake hazard for the portions of the area containing these points can be considered at least a rough proxy for the more site-specific earthquake hazard value that Utah states is lacking in the USGS mapping.

Utah also complains about the Board's reliance on another comparison — Dr. Stamatakos's purportedly invalid comparison of the Geomatrix study with a study of nine sites along the I-15 corridor by Dames & Moore (an engineering consulting firm). Dr. Stamatakos concluded (and the Board agreed) that the peak ground motion for a 2000-year design basis earthquake at the PFS site is actually higher than the peak ground motion for the 2500-year earthquake used in the design

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[82] Site-specific earthquake hazard analyses include more details than regional analyses. For example, a site-specific analysis would normally include a detailed profile of the site's soil. By contrast, regional analyses like those of USGS do not require specific soil profiles but instead use only a generic soil in their hazard analysis.

[83] *See* LBP-03-8, 57 NRC at 529 (finding F.132) (citations omitted).

[84] USGS's earthquake hazard maps take into account all major active faults in the country but do not, except by chance, reflect data relevant to every location or site on those maps. Moreover, in preparing those maps, the USGS did not consider the soil conditions at individual sites but instead assumed the presence of a generic ''B/C boundary'' soil (i.e., a soil through which a particular kind of seismic wave would travel at a specific speed, 760 m/s).

basis for certain buildings in the I-15 corridor.[85] Utah describes this comparison as ''meaningless'' because the Staff did not ''strip[] off the site responses at the PFS and I-15 sites,''[86] i.e., the Staff did not remove from its hazard calculations the effect that the soil overlaying these two rock bases would have on seismic waves as they go through the soil. According to Utah, this error precluded the Staff from focusing solely on the remainder of the hazard calculations (i.e., the peak ground acceleration at the topmost levels of the two rock bases).

We see this second comparison as similar to the first in that it is only a ''crude'' comparison. The Staff apparently viewed it so.[87] Moreover, even assuming that the Staff (and the Board) should not have relied in part on this particular comparison in reaching its general conclusion regarding the overly conservative nature of Geomatrix's analysis, the rejection of this source of support for the Staff's conclusion would not justify our rejecting the Staff's general conclusion outright. The record contains significant additional support for the Staff's and the Board's conservatism finding[88] — support that Utah has challenged either unsuccessfully or not at all.

(iii) PFS'S DESIGN BASIS EARTHQUAKE

Utah does not, however, limit its challenge to the Staff's and the Board's seismic analyses. Utah also challenges PFS's analysis, and the Board's reliance on it. Utah asserts that, by ''designing only to a 2000-year [design basis earthquake, as compared with a more severe design basis earthquake], the absolute

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[85] *See* LBP-03-8, 57 NRC at 366-67, 529-30 (findings F.133-F.136), for an explanation of this paradoxical conclusion (which is unchallenged on appeal).

[86] *See* Petition at 13. *See also* Utah's Proposed Findings of Fact at 210.

[87] *See* Staff's Reply [to Utah's Proposed] Findings of Fact and Conclusions of Law Concerning Unified Contention Utah L/QQ (Geotechnical Issues), Oct. 16, 2002, at 59 (''we find no reason why a valid comparison of the resulting seismic hazard curves cannot be made, at least for purposes of examining, *even on a crude basis,* whether one of those analyses produced seismic hazard curve results which are palpably greater than expected'' (emphasis added)).

[88] *See* LBP-03-8, 57 NRC at 497 (finding F.31):

> [W]e note that the Staff has identified what it considers to be many conservatisms in the Geomatrix PSHA [probabilistic seismic hazard analysis]. Therefore, the 2000-year DBE [design basis earthquake] constitutes a conservative prediction of the seismic hazard at the PFS facility. This conservatism is above and beyond the inherent conservatisms embodied in the PFS facility design, and provides additional confidence that the 2000-year DBE for the PFS facility provides sufficient protection of public health and safety.

For specific examples of such conservatisms, *see* LBP-03-8, 57 NRC at 365-66, 378 (finding A.19), 496-97 (finding F.26), 513 (finding F.83), 515-16 (findings F.90-F.91), 516-17 (finding F.94), 528-29 (finding F.130-F.131).

margins of safety are greatly diminished.''[89] In support, Utah cites the following mathematically obvious statement from its own Proposed Findings of Fact and Conclusions of Law:

> Although a factor of safety may be the same for different [design basis earthquakes], the amount of actual design margin is different. A factor of safety is a function of the capacity divided by the demand. . . . Thus, if the factor of safety is kept constant and the demand is reduced from a 10,000-year [design basis earthquake] to a 2000-year [design basis earthquake], then the capacity is also . . . reduced. . . . Although the factor of safety is the same for both earthquakes, the actual capacity — the design margin — is larger for the 10,000-year earthquake compared to the 2000-year earthquake. . . .[90]

Based on the mathematics set forth above, Utah had asked the Board to find ''that PFS's 2000-year [design basis earthquake] design does not have the same design margin as a 10,000-year [design basis earthquake] design for a [nuclear power plant].''[91]

Utah is of course correct that a design that protects against a 2000-year earthquake necessarily provides somewhat less of a safety margin than a design that protects against a 10,000-year earthquake. But the correctness of Utah's comparison of design margins does not, as a matter of logic, support Utah's position before us that the Board's approval of diminished safety margins raised so ''substantial [a] question'' of fact and presented so clear a case of factual error as to require the Commission's review and correction. The mere assertion that safety margins will be ''greatly diminished'' does not, without more, equate to an assertion that the Board made a ''clearly erroneous'' finding of fact.[92] After all, a safety margin at an ISFSI could be ''greatly diminished'' yet still provide a level of protection sufficient to satisfy our Part 72 safety requirements.

Moreover, when we issued CLI-01-12 two years ago sending the seismic issue to the Board for hearing, we were well aware of the inherently obvious fact that a facility designed to withstand a 2000-year return period earthquake would provide a smaller margin of safety than a building designed to withstand a 10,000-year return period earthquake.[93] In that decision, we did not hold, as Utah urged, that PFS must use a 10,000-year return period earthquake in the design basis for its

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[89] Petition at 14. *See also id.* (''PFS's . . . concepts . . . severely minimize safety margins''); *id.* at 15 (''severely reduces safety margins by relying on concepts contrary to earthquake engineering practices'').

[90] Utah's Proposed Findings of Fact at 228 (citations omitted).

[91] *Id.* at 228.

[92] 10 C.F.R. § 2.786(b)(4)(i).

[93] *See* CLI-01-12, 53 NRC 459.

critical structures.[94] Instead, we asked the Board to determine whether, as a factual matter, the proposed 2000-year return period would protect the public health and safety.[95]

d. The Public Interest

Utah criticizes the Board for not considering ''the public interest'' when ruling on the exemption request, as required under 10 C.F.R. § 72.7.[96] The Board did not ignore the public interest. To the contrary, the Board not only twice quoted the entire requirements of that regulation — including the public interest factor[97] — but also made an explicit finding that:

> Pursuant to 10 C.F.R. § 72.7, both the Applicant and the Staff have provided adequate justification to support the conclusion that the Staff's grant of the Applicant's exemption request — i.e., to use a PSHA methodology and a 2000-year design basis earthquake — was authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest.[98]

C. Exposure Duration for Computing Radiation Dosages at the Site Boundary

According to Utah, the Board erred in concluding that, for purposes of determining PFS's compliance with the Commission's 5-rem accidental dose limit for an ISFSI, PFS appropriately assumed that the person receiving the dose was present at the site boundary only during the ISFSI's operational hours (40 hours a week for 50 weeks a year).

1. Background

Section 72.106(b) of our ISFSI regulations provides, in significant part, that ''[a]ny individual located on or beyond the nearest boundary of the control area may not receive from any *design basis accident* . . . a total effective dose equivalent of . . . 5 rem.''[99] Section 72.104(a) provides, in pertinent part, that ''[d]uring *normal operations and anticipated occurrences,* the annual dose equivalent to

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[94] *See id.* at 472.

[95] *See id.* at 467.

[96] *See* note 37, *supra.*

[97] LBP-03-8, 57 NRC at 358, 492 (finding F.11).

[98] *Id.* at 544.

[99] 10 C.F.R. § 72.106(b) (emphasis added).

any real individual who is located beyond the control area must not exceed . . . 25 mrem . . . to the whole body.''[100]

PFS assumed in its application that, because there is no one now living or likely to live near the facility, PFS's average site worker would be both the ''real individual'' referenced in section 72.104(a) *and* the ''individual'' referenced in section 72.106(b). PFS then relied on the cask manufacturer's dose consequences analysis which assumed that this average site worker would be on the site boundary 40 hours a week for 50 weeks a year.[101] The analysis yielded a maximum dose rate of 5.85 mrem per year under normal operating conditions, and further determined that a multiple-cask-tipover accident would not result in any significant aggregate increase of radiological doses at the facility boundary.[102] From this information, PFS concluded that its ''individuals'' would not experience accident dose levels in excess of the limits specified in section 72.106(b).[103]

The Board accepted PFS's approach and analysis,[104] ruled that the 5-rem accident limit of section 72.106(b) would apply to ''real individuals'' based on site-specific circumstances,[105] and concluded that the 5.85-mrem maximum dose rate was well within the limits permitted under both sections 72.104(a) and 72.106(b) for normal operations and accidental conditions, respectively.[106]

2. Discussion

In arguing that the Board erred in interpreting the 5-rem accident dose limit in 10 C.F.R. § 72.106(b) as applying only during the site's operational hours, Utah claims that the Board ignored the difference in the wording of section 72.104(a)'s operating conditions (''a real individual'') and section 72.106(b)'s accident conditions (''any individual''). According to Utah, this error led to the Board's failure to consider that the ''individual'' would be located at the site boundary 24 hours a day for 365 days — an approach that, if considered, would have increased the accident dose limit at the site boundary from 2000 to 8760

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[100] 10 C.F.R. § 72.104(a) (emphasis added).

[101] *See* LBP-03-8, 57 NRC at 368 n.33.

[102] *See id.* at 367.

[103] *See id.* at 368.

[104] *See id.*

[105] *See id.* at 535 (finding G.13: ''for accident conditions, the 5-rem limit [in section 72.106(b)] would apply to *real individuals,* and site-specific circumstances would similarly need to be taken into account, including any remedial measures that may be taken during extended accident conditions''). *See also id.* at 536 (findings G.17-G.18).

[106] *See id.* at 532 (finding G.5). *See also id.* at 534 (finding G.11) (''there are approximately three orders of magnitude of margin between the expected dose rate at the [site] boundary for 4000 casks in a tipped-over condition compared to the 5-rem accident dose limit in 10 C.F.R. § 72.106(b)'').

hours per year.[107] Utah further claims that the Board's use of a 2000-hour annual exposure duration disregards the fact that the certificate of compliance for the HI-STORM 100 storage casks which PFS proposes to use is supported by an analysis using an 8760-hour annual exposure duration.[108]

Utah's argument regarding the difference between the terms ''any individual'' and ''any real individual'' has some linguistic force. It is, however, at odds with our current reality-based risk-informed regulatory philosophy.[109] It is also unsupported by this agency's regulatory interpretations of sections 72.104(a) and 72.106(b). In 1995, the Commission rejected a rulemaking petition that we amend section 72.104(a) along the same lines as Utah now suggests for interpreting section 72.106(b). The petitioner there had essentially suggested that we set dose limits in a way that would protect ''an imaginary individual . . . continually present at the boundary of the controlled area'' of an ISFSI. In declining, we enunciated the general principle that ''[t]he NRC regulates radiation doses on the basis of real people in proximity to the boundary of the controlled area.''[110] We see no more reason to vary from this general principle when interpreting section 72.106(b) than when interpreting 72.104(a).

Utah's interpretation likewise fails to take into account the NRC Staff's reality-based interpretation of the accident dose standard in section 72.106(b). The Staff guidance in NUREG-1567 assumes that the ''individual'' remains at the site boundary for 30 days, not 365 days.[111] This assumption is based on common sense — that protective actions would assure that any person so close to the boundary would be evacuated or otherwise protected if the casks cannot be ''righted'' within 30 days (720 hours). Considered in this light, the Board's decision to accept PFS's 2000-hour occupancy time[112] was actually generous to Utah.

Further, the record fully supports the Board's related factual finding that the only individuals likely to be present at the site boundary would be PFS workers who would presumably be present only 40 hours a week for 50 weeks a year.[113] As the Staff points out regarding future use of the land adjoining the PFS site:

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[107] *See* Petition at 17-18.

[108] *See id.* at 18.

[109] *See generally* Part II.B.1 of this Memorandum and Order, *supra.*

[110] Maryland Safe Energy Coalition; Denial of Petition for Rulemaking, 60 Fed. Reg. 38,286, 38,288 (July 26, 1995).

[111] *See* NUREG-1567, ''Standard Review Plan for Spent Fuel Dry Storage Facilities,'' at p. 9-15 (March 2000):

> For hypothetical accident conditions, the duration of the release is assumed to be 30 days (720 hours). The bounding exposure duration assumes that an individual is also present at the controlled area boundary for 30 days. This time period . . . provides good defense in depth since recovery actions to limit releases are not expected to exceed 30 days.

[112] *See* LBP-03-8, 57 NRC at 368-69, 535-36 (findings G.13-G.18).

[113] *See id.* at 536 (finding G.17).

> the nearest residence . . . is two miles away; only about 30 persons live on the Reservation, and only 36 persons live within a 5-mile radius of the facility; there are no transient or institutional populations within 5 miles of the site, and no public facilities are located or planned within that radius; Dr. Resnikoff [Utah's expert witness] was not familiar with any potential future land use development in the area; and PFS witness John Donnell testified concerning the low potential for future land development close to the site.[114]

We see no relevance to this proceeding in Utah's argument regarding the assumptions underlying the analysis for the HI-STORM cask certificate of compliance. Because those casks may be used at a variety of sites (and not just at PFS), the generic dose calculations for those casks necessarily assumed full-time occupancy at the site boundaries.

Utah's position regarding dose limits is further undermined by the Board's general findings that the spent fuel canisters will not tip over during a design basis earthquake,[115] that even were any canisters to tip over, they would still not break or leak,[116] and that the NRC's accidental dose limit would therefore not be exceeded as a result of an earthquake.[117] Indeed, the Board even went so far as to conclude that

> in the event of a beyond-design-basis accident that caused the tip-over of all, or a significant portion, of the 4000 casks at the PFS site, the radiological dose levels at the OCA boundary would not be increased from the 5.85 mrem/yr for normal operations that had previously been calculated. Thus, there are approximately three orders of magnitude of margin between the expected dose rate at the OCA boundary for 4000 casks in a tipped-over condition compared to the 5-rem accident dose limit in 10 C.F.R. § 72.106(b).[118]

The Board's findings are well supported by the record and its conclusions are founded on solid reasoning. Such findings are not ''clearly erroneous'' and therefore do not qualify for Commission review under 10 C.F.R. § 2.786(b)(4)(i). We also find persuasive the Board's conclusions that PFS included additional conservative assumptions in its dose calculations and that the use of more

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[114] Staff's Response at 15 n.21.

[115] *See* LBP-03-8, 57 NRC at 532 (finding G.6: ''it has been demonstrated that the casks will not tip over'').

[116] *See id.* at 532-33 (finding G.6: ''The results of this analysis show that all stresses on the storage cask remain within the allowable values . . . , assuring the integrity of the [multipurpose canister] confinement boundary with large margins of safety'').

[117] *See id.* at 533 (finding G.6: ''there would be no releases of radioactivity even in the event of a postulated tip-over''). *See also id.* at 533-34 (findings G.9-G.11).

[118] *See id.* at 534 (finding G.11).

realistic assumptions would have reduced still further the dose levels and dose consequences of a hypothetical tip-over of all 4000 casks.[119]

Utah naturally objects to the Board's factual findings in this particular respect. Utah specifically criticizes the Board for relying on testimony of witnesses who purportedly had no familiarity with the site or the land use in Skull Valley and also for ignoring testimony regarding possible future residential land use in Skull Valley.[120] This argument, however, goes to the credibility of the parties' witnesses. For the reasons set forth earlier in this Memorandum and Order, we decline to second-guess the Board's assessment of the witnesses' credibility. The Board's credibility discussion appears to us both reasonable and well supported by record evidence,[121] and we will not overturn it. Our deference to and our more general agreement with the Board on this issue is particularly appropriate, given the admission by Utah's expert witness Dr. Resnikoff that:

> taking into account radioactive decay, the 5-rem accident limit specified in 10 C.F.R. § 72.106(b) would not be reached . . . no matter how long one assumes that the casks remain in the worst-case tip-over and total-loss-of-hydrogen-shielding condition, and disregarding any remedial actions that might take place in the intervening period by PFS or others.[122]

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[119] *See id.* at 534-35 (finding G.12). The cited conservatisms were assumptions that (1) all 4000 casks contain fuel with a burnup of 40,000 MWT/MTU and a cooling time of 10 years, whereas a more realistic scenario would be 35,000 MWT/MTU and 20 years, reducing the normal dose at the site boundary from 5.85 mrem/year to 2.10 mrem/year; (2) the fuel assemblies inside the casks have the highest gamma and neutron radiation source term in all fuel storage location, thereby maximizing radiological doses; and (3) the fuel had been subject to a single radiation cycle in calculating the source term, despite the fact that this assumption ignores reactor operation downtime which would reduce the source term by effectively increasing the cooling time.

[120] *See* Petition at 18.

[121] *See* LBP-03-8, 57 NRC at 542 (findings G.44-G.45: ''Dr. Resnikoff made a total of nine different corrections or changes to his overall dose calculation at four different points in the proceeding. . . . [t]he number and nature of those changes undercuts confidence in the accuracy of his analyses''); *id.* (finding G.46: ''An important error in Dr. Resnikoff's dose calculations is that he did not consider the effect of radioactive decay'').

[122] *Id.* at 542 (finding G.47). *See also id.* at 370 (''[d]ue to discovered errors [in his] own testimony . . . , it is unlikely that the accidental dose rate at the facility would ever reach the 5-rem limit''), 541 (finding G.40: even ''assuming that the casks remained on the ground indefinitely with no remedial actions taken, the 5-rem limit would not be exceeded for a person continuously stationed at the [site] boundary'').

III. CONCLUSION

We have reviewed all challenged sections of the Board's order in their entirety and conclude that they are well reasoned and amply supported by the record. The Commission therefore *denies* Utah's Petition for Review of LBP-03-8.

It is so ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 15th day of August 2003.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of	**Docket Nos. 50-390-CivP** **50-327-CivP** **50-328-CivP** **50-259-CivP** **50-260-CivP** **50-296-CivP**
TENNESSEE VALLEY AUTHORITY **(Watts Bar Nuclear Plant, Unit 1;** **Sequoyah Nuclear Plant, Units 1 and 2;** **Browns Ferry Nuclear Plant,** **Units 1, 2, and 3)**	**August 28, 2003**

The Commission grants review of the Licensing Board's decision (LBP-03-10, 57 NRC 553 (2003)) which found that TVA had discriminated against a whistleblower employee, but reduced the civil monetary penalty assessed by the Staff. The Commission also raises, on its own motion, an additional issue regarding the standard for mitigating a civil monetary penalty.

RULES OF PRACTICE: PETITION FOR REVIEW; APPELLATE REVIEW; STANDARD OF REVIEW

Review of an initial decision such as LBP-03-10 is purely discretionary with the Commission, giving due weight to the existence of ''a substantial question'' regarding:

(i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;

(ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;

(iii) A substantial and important question of law, policy or discretion has been raised;

(iv) The conduct of the proceeding involved a prejudicial procedural error; or

(v) Any other consideration which the Commission may deem to be in the public interest.

10 C.F.R. § 2.786(b)(4).

RULES OF PRACTICE: *AMICUS CURIAE*; APPELLATE REVIEW (*AMICUS CURIAE*); PETITION FOR REVIEW (*AMICUS CURIAE*)

Consistent with the Commission's past practice under such circumstances, NEI may, without further motion, participate in this appellate phase of the proceeding to the extent set forth in the filing schedule. *See Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-7, 45 NRC 437, 439 (1997).

RULES OF PRACTICE: PETITION FOR REVIEW; APPELLATE REVIEW

The Staff, by waiting to present an appellate issue in its answer, effectively deprived the Licensee of its right under our regulations to respond.

MEMORANDUM AND ORDER

The Tennessee Valley Authority (TVA) seeks discretionary Commission review of the Atomic Safety and Licensing Board's Initial Decision[1] pursuant to 10 C.F.R. § 2.786(b)(4). In that decision, a majority of the three-member Board upheld the NRC Staff's finding that TVA had discriminated against a whistleblower employee, but reduced the civil monetary penalty assessed by the Staff. The third member of the Board filed a separate opinion, concurring in part and dissenting in part.[2] We grant TVA's Petition for Review. Also, on our own motion, we have decided to review the question whether the Board applied the proper standard in reducing the civil penalty assessed by the Staff.

[1] LBP-03-10, 57 NRC 553 (2003).

[2] *See* 57 NRC at 609-17.

I. BACKGROUND

This case arises out of the NRC Staff's issuance of a Notice of Violation and, later, an order imposing a $110,000 civil monetary penalty against TVA. The Staff's order found that TVA had violated 10 C.F.R. § 50.7 by retaliating against an employee for having engaged in protected (i.e., ''whistleblowing'') activities 3 years earlier.[3]

In 1996, TVA had declined to select Mr. Gary Fiser for a competitive position. According to Mr. Fiser and the NRC Staff, TVA's decision constituted discrimination in response to certain ''protected conduct'' in which Mr. Fiser engaged in 1993. TVA claimed that its decision was instead motivated solely by business considerations associated with a massive reorganization that eliminated or modified the duties of thousands of its employees. TVA's motivation in not selecting Mr. Fiser was the key issue in determining whether TVA had violated section 50.7.[4]

Following a 25-day evidentiary hearing, the Atomic Safety and Licensing Board issued an initial decision (over a dissent by Judge Young) agreeing with the NRC Staff that TVA unlawfully discriminated against Mr. Fiser:

> the Staff has demonstrated, by a preponderance of the evidence, that Mr. Fiser's nonselection was motivated to some degree as retaliation for engaging in protected activities — including his having filed two complaints of discrimination before the Department of Labor . . . concerning his treatment at TVA for attempting to raise nuclear safety issues (albeit in a manner not conforming to the prescribed internal procedures for raising such safety concerns), and his contacting (along with two other TVA employees) a U.S. Senator concerning TVA employees' raising safety issues. . . . [C]opies of the letter to the U.S. Senator were also sent to NRC officials, so as to constitute a whistleblowing complaint before the NRC.[5]

The Board, however, reduced the penalty amount by 60%, to $44,000, on two grounds: ''TVA has what appeared to it as seemingly significant performance-oriented reasons that apparently played a large part (although not the sole part) in its nonselection of Mr. Fiser for the position he was seeking''[6] and ''TVA appears not to have been provided adequate notice (at least at the time of the nonselection of Mr. Fiser in 1996) of NRC's interpretation of section 50.7 as including adverse

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[3] 66 Fed. Reg. 27,166 (May 16, 2001).

[4] *See* 10 C.F.R. § 50.7(d) (''The prohibition applies when the adverse action occurs because the employee has engaged in protected activities. An employee's engagement in protected activities does not automatically render him or her immune from discharge or discipline for legitimate reasons or from adverse action dictated by non-prohibited considerations'').

[5] LBP-03-10, 57 NRC at 558.

[6] *Id. See also id.* at 606-07.

actions motivated in any part (not necessarily a substantial part) by an employee's engagement in protected activities.''[7]

TVA now seeks Commission review of this order on the grounds that the Board made clearly erroneous factual findings, reached legal conclusions that were contrary to law and without governing precedent, and raised substantial and important questions of law, policy, and discretion.[8] TVA points to nine factual findings of discriminatory intent that TVA considers ''clearly erroneous.''[9] The thrust of TVA's factual challenge is that the Board's findings of discriminatory intent are based on inferences drawn from circumstantial evidence rather than direct testimony, that even the circumstantial evidence on which the Board relies does not support either an inference of discriminatory intent or the conclusion that TVA violated section 50.7, and that the record does not support the Board's conclusion that there was a pattern of discrimination likely orchestrated by persons in authority to end Mr. Fiser's career.[10]

TVA also challenges the Board's interpretation of section 50.7. More specifically, TVA argues that the Board applied an inappropriate test in determining whether the NRC Staff had met its burden of proof regarding discrimination under section 50.7;[11] that the Board incorrectly held that, in a dual-motive case, section ''50.7 is violated by finding 'any' discriminatory motive without making a quantitative determination as to whether that motive affected or caused the decision;''[12] that the Board should instead have required ''a showing, by the preponderance of the reliable evidence, that the protected activity was in fact a contributing factor in the specific adverse action at issue;''[13] and that the Board erroneously interpreted the term ''protected activities'' in section 50.7 to include participation in the resolution of a *previously* identified safety issue.[14]

Further, TVA sees prejudicial procedural error in the Board's reliance on certain allegedly protected activities that had not been included in the Staff's Notice of Violation.[15] And finally, TVA argues that the Board's decision raises substantial questions of law and policy, viz., the proper legal and evidentiary standard that would support a finding of violation under section 50.7, and the

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[7] *Id.* at 559.

[8] *See* TVA's Petition for Review of Initial Decision in LBP-03-10, dated July 16, 2003, at 1.

[9] *See id.* at 3-6.

[10] *See id.* at 3.

[11] *See id.* at 6-7.

[12] *Id.* at 7.

[13] *Id.*

[14] *See id.* at 8-9.

[15] *Id.* at 8 n.7.

Board improperly injecting itself into the discretionary domain of management and second-guessing the management's reasonable business decisions.[16]

The Staff disagrees with TVA's assertions regarding factual error and the absence of precedent. It does not, however, object to Commission review with respect to the following substantial questions: (i) the scope of protected activities, (ii) the standard for determining whether prohibited discrimination occurred, (iii) the applicability of 10 C.F.R. § 50.9 (regarding completeness and accuracy of information submitted to the Commission) to a discrimination case in which the Staff had rebutted all the licensee's alternative explanations for its allegedly discriminatory action, and (iv) the standards by which a licensing board should mitigate a civil penalty in a discrimination case.[17] The Staff, pointing out that all but the final of these issues have already been thoroughly briefed before the Board, implies that we need only seek appellate briefs on that last issue.

The Nuclear Energy Institute (NEI) participated in the proceeding before the Board as an *amicus curiae,*[18] and now seeks to file an answer in support of TVA's position.[19] NEI raises many of the same issues as TVA.

II. DISCUSSION

Review of an initial decision such as LBP-03-10 is purely discretionary with the Commission, giving due weight to the existence of ''a substantial question'' regarding:

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
>
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
>
> (iii) A substantial and important question of law, policy or discretion has been raised;
>
> (iv) The conduct of the proceeding involved a prejudicial procedural error; or
>
> (v) Any other consideration which the Commission may deem to be in the public interest.[20]

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[16] *See id.* at 9-10.

[17] *See* Staff Response to TVA's Petition for Review of Initial Decision in LBP-03-10, dated July 25, 2003, at 2.

[18] *See* LBP-03-10, 57 NRC at 564.

[19] *See* Request of NEI for Leave To File an Answer in Support of Commission Review of Initial Decision in LBP-03-10, dated July 28, 2003; NEI's Answer in Support of TVA's Petition for Review of Initial Decision in LBP-03-10, dated July 28, 2003.

[20] 10 C.F.R. § 2.786(b)(4).

We grant TVA's Petition for Review on the ground that this proceeding presents ''substantial questions'' of first impression regarding this agency's enforcement regulations and policies. Also, we deny NEI's request for leave to file an answer to TVA's petition.[21] However, consistent with our past practice under such circumstances, we will allow NEI, without further motion, to participate in this appellate phase of the proceeding to the extent set forth in the filing schedule below.[22]

The Staff is correct to point out that many of TVA's issues have already been briefed before the Board. We believe, however, that the Initial Decision should enable the parties to focus their attention on the key issues more sharply than was possible in the trial briefs that were submitted prior to the issuance of LBP-03-10. We therefore decline to adopt the Staff's suggestion that we limit briefing to solely the issue of the standard for mitigating civil monetary penalties.

The Staff, in raising the mitigation issue, was not responding to any arguments raised in TVA's Petition for Review. The Staff was instead presenting an entirely unrelated question — the kind of question that the Staff should have proffered in a petition for review of its own. By waiting to present the mitigation issue in its answer, the Staff effectively deprived TVA of its right under our regulations to respond.[23] Despite the irregular way the Staff raised the mitigation issue, we recognize that it is significant and that the Commission has not previously addressed it. We therefore, on our own motion, add the mitigation question to the issues that the parties and NEI should address in their briefs before us.

We request that the parties and NEI file briefs discussing the issues raised in TVA's petition for review and the Staff's answer. Accordingly, we establish the following filing schedule:

1. Within 30 days after service of this Order, TVA may file an initial brief no longer than forty pages addressing the issues presented in its petition for review. If it chooses, NEI may simultaneously file an *amicus curiae* brief no longer than twenty pages addressing those same issues. The NRC Staff may simultaneously file an initial brief no longer than fifteen pages addressing the mitigation issue that it raised in its answer.

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[21] *See Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-7, 45 NRC 437, 438-39 (1997) (''Our rules contemplate *amicus curiae* briefs only after the Commission grants a petition for review, and do not provide for *amicus* briefs supporting or opposing petitions for review''). *See also* 10 C.F.R. § 2.715(d) (permitting the filing of *amicus curiae* briefs addressing an initial decision ''[i]f [the] matter is taken up by the Commission pursuant to § 2.786'').

[22] *See Claiborne,* CLI-97-7, 45 NRC at 439.

[23] *Compare* 10 C.F.R. § 2.786(b)(3) (''Any other party to the proceeding may, within ten . . . days after service of a petition for review, file an answer supporting or opposing Commission review'') *with id.* (''The petitioning party shall have no right to reply [to an Answer], except as permitted by the Commission'').

2. Within 30 days after service of TVA's brief or NEI's brief, whichever is later, the NRC Staff may file a single brief responding to the arguments of TVA (and, if appropriate, NEI). The Staff's responsive brief shall not exceed forty pages unless NEI has filed an *amicus* brief. In that case, the NRC Staff's brief shall not exceed fifty pages. Also within those same 30 days, TVA may file a brief of no more than fifteen pages responding to the arguments of the NRC Staff regarding the mitigation issue. NEI may file an *amicus* brief on that issue of no more than five pages.

3. Within 15 days after service of the Staff's responsive brief, TVA may file a reply brief no longer than twenty pages addressing the arguments presented in the NRC Staff's response brief. Also within those same 15 days, the NRC Staff may file a reply brief of no more than five pages addressing the arguments presented in TVA's response brief (and, if filed, NEI's *amicus* brief) on the mitigation issue.

Parties should file their briefs in a manner that ensures arrival at the Commission no later than 4:15 p.m. (Eastern Time) on the due date. Each brief longer than 10 pages must contain a table of contents, with page references, and a table of cases (alphabetically arranged), statutes, regulations, and other authorities cited, with references to the pages of the brief where they are cited. Page limitations on briefs are exclusive of pages containing a table of contents, table of cases, and of any addendum containing statutes, rules, regulations, etc.[24]

It is so ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 28th day of August 2003.

[24] *See Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-96-4, 43 NRC 51, 52 (1996).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman
Dr. Jerry R. Kline
Dr. Peter S. Lam

In the Matter of **Docket No. 72-26-ISFSI**
(ASLBP No. 02-801-01-ISFSI)

PACIFIC GAS AND ELECTRIC COMPANY
(Diablo Canyon Power Plant Independent Spent Fuel Storage Installation)

August 5, 2003

In this proceeding concerning the application of Pacific Gas & Electric Company (PG&E) under 10 C.F.R. Part 72 to construct and operate an independent spent fuel storage installation (ISFSI) at the Diablo Canyon Power Plant, the Licensing Board finds that (1) the challenge of the 10 C.F.R. § 2.714 intervenor and the 10 C.F.R. § 2.715(c) interested governmental entities to the financial qualifications of PG&E because of its current status as seeking Chapter 11 bankruptcy reorganization failed to demonstrate there is any genuine and substantial dispute of law or fact that only can be resolved with sufficient accuracy in an evidentiary hearing; and (2) PG&E has met its burden to establish it has the financial qualifications to carry out the activities outlined in its Part 72 application by virtue of its ability to cover ISFSI-related costs through rate recovery, cash on hand, or its substantial operating revenues.

RULES OF PRACTICE: HEARING PROCEDURES FOR SPENT FUEL POOL EXPANSION PROCEEDINGS

The 10 C.F.R. Part 2, Subpart K procedures were established in response to a congressional mandate found in the Nuclear Waste Policy Act of 1982 (NWPA),

42 U.S.C. § 10101 *et seq.* In licensing proceedings involving the expansion of spent nuclear fuel storage at civilian nuclear power reactor sites, the NWPA provides that parties to the proceeding are to be afforded an opportunity to present facts, data, and arguments, by way of written summaries, sworn testimony, and oral argument. *See* 42 U.S.C. § 10154(a)-(b). Section 2.1115(a) of 10 C.F.R., which incorporates additional NWPA directives, provides that based on the oral argument and written submissions, the presiding officer shall ''[d]esignate any disputed issues of fact, together with any remaining issues of law, for resolution in an adjudicatory hearing,'' and ''[d]ispose of any issues of law or fact not designated for resolution in an adjudicatory hearing.'' To designate an issue for hearing, there must be

> a genuine and substantial dispute of fact which can only be resolved with sufficient accuracy by the introduction of evidence in an adjudicatory hearing; and . . . [t]he decision of the Commission is likely to depend in whole or in part on the resolution of that dispute.

Id. § 2.1115(b)(1)-(2).

RULES OF PRACTICE: BURDEN OF GOING FORWARD (SUBPART K PROCEEDING); BURDEN OF PROOF (SUBPART K PROCEEDING)

Notwithstanding the agency's rules of practice that place the ultimate burden of proof of any substantive matter at issue on the applicant, the party seeking adjudication in a 10 C.F.R. Part 2, Subpart K proceeding bears the burden of demonstrating the existence of disputed material facts requiring an evidentiary hearing. *See* 50 Fed. Reg. 41,662, 41,667 (Oct. 15, 1985).

LICENSING BOARDS: RESOLUTION OF ISSUES

RULES OF PRACTICE: HEARING PROCEDURES FOR SPENT FUEL POOL EXPANSION PROCEEDINGS (CREDIBILITY; ISSUE RESOLUTION)

The Commission's explanation regarding the matter of the resolution of factual questions in the context of a Subpart K proceeding indicates:

> The short of the matter is that the NWPA and our rule implementing it (Subpart K) contemplate merits rulings by licensing boards based on the parties' written submissions and oral arguments, except where a board expressly finds that ''accuracy'' demands a full-scale evidentiary hearing. Subpart K's abbreviated hearing approach is in harmony with other NRC rules, such as Subparts L and M, that authorize

informal adjudicatory decision-making without the panoply of full trial-type processes. *See* 10 C.F.R. § 2.1201 *et seq.* (Subpart L); 10 C.F.R. § 2.1301 *et seq.* (Subpart M).

Licensing boards are fully capable of making fair and reasonable merits decisions on technical issues after receiving written submissions and hearing oral arguments. The Commission is a technically oriented administrative agency, an orientation that is reflected in the makeup of its licensing boards. Most licensing boards have two, and all have at least one, technically trained member. In Subpart K cases, licensing boards are expected to assess the appropriate evidentiary weight to be given competing experts' technical judgments, as reflected in their reports and affidavits. The inquiry is similar to that performed by presiding officers in materials licensing cases, where fact disputes normally are decided ''on the papers,'' with no live evidentiary hearing. *See, e.g., Hydro Resources, Inc.,* CLI-01-4, 53 NRC at 45; *Curators of the University of Missouri,* CLI-95-1, 41 NRC [71,] 118-20 [(1995)]. The NRC's administrative judges, in other words, and the Commission itself, are accustomed to resolving technical disputes without resort to in-person testimony.

There may, of course, be issues, such as those involving witness credibility, that cannot be resolved absent face-to-face observation and assessment of the witness. Or there may be issues involving expert or other testimony where key questions require followup and dialogue to be answered ''with sufficient accuracy.'' In these kinds of cases, Subpart K contemplates further evidentiary hearings. Many issues, however, particularly those involving competing technical or expert presentations, frequently are amenable to resolution by a licensing board based on its evaluation of the thoroughness, sophistication, accuracy, and persuasiveness of the parties' submissions.

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 385-86 (2001), *petitions for review denied,* 47 Fed. Appx. 1 (2002) (per curiam).

RULES OF PRACTICE: CONTENTIONS

As the agency's procedural rules make clear, the central focus of an adjudicatory proceeding such as this one is the contentions, or issue statements, that an intervening party raises relative to a license application like that proffered by PG&E. *See* 10 C.F.R. § 2.714(b)(2)(iii).

LICENSING BOARDS: REVIEW OF NRC STAFF'S ACTIONS

Agency precedent makes clear that what is not at issue in adjudicatory proceedings is the adequacy of the manner in which the Staff conducts its review of a technical/safety matter. *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 807 (1983).

LICENSING BOARDS: REVIEW OF NRC STAFF'S ACTIONS

This, of course, is not to say that the Staff's application review efforts are totally irrelevant relative to safety matters admitted for litigation. Clearly, the Staff's position on whether some aspect of an application that is challenged by a contention meets the agency's regulatory requirements, which generally is presented to the licensing board as an evidentiary input, is the product of the Staff's review process. But commonly it is the substantive sufficiency of that product, not the particular process by which it was generated, that is the matter of concern to the licensing board as it seeks to determine to what degree the Staff's position does or does not support/corroborate a particular contention as it challenges an application.

RULES OF PRACTICE: DISCOVERY (OBJECTIONS)

Claims about a lack of a promised Staff response to discovery requests for information that were never presented to the presiding officer during the allotted discovery period in the form of a motion to compel or any other request for presiding officer relief cannot provide the basis for an additional evidentiary proceeding under Subpart K.

FINANCIAL QUALIFICATIONS: APPLICABLE STANDARD (RATEMAKING PROCESS)

The approach in Chapter 11 bankruptcy reorganization under which a utility would remain a regulated entity subject to state public utility commission control is wholly consistent with the Commission's general approach to financial assurance for regulated entities, i.e., the premise ''that reasonable and prudent costs of safely operating a nuclear power plant will be recovered through the ratemaking process.'' *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 13, *rev'd on other grounds,* CLI-88-10, 28 NRC 573 (1988).

FINANCIAL QUALIFICATIONS: CONSIDERATION IN LICENSE TRANSFER PROCEEDING (LITIGABILITY)

Adoption of a utility Chapter 11 bankruptcy reorganization plan under which any ISFSI license would be transferred to a new entity would require that there be a utility application requesting NRC permission to amend the Part 72 ISFSI license to transfer it to the new entity, which likewise would be subject to a hearing at which, presumably, the issue of the new entity's financial qualifications could be litigated. To the extent that hearing would be conducted under the more

informal procedures of 10 C.F.R. Part 2, Subpart M, this is not a reason to allow those future license transfer issues to be introduced into an existing Subpart K proceeding.

FINANCIAL QUALIFICATIONS: CONSIDERATION IN SPENT FUEL POOL EXPANSION PROCEEDINGS (NEED FOR EVIDENTIARY HEARING)

RULES OF PRACTICE: HEARING PROCEDURES FOR SPENT FUEL POOL EXPANSION PROCEEDINGS (NEED FOR EVIDENTIARY HEARING)

As is the case with a utility subject to a ratemaking process governing revenue for facility operation, the possibility exists that the outcome of the bankruptcy process could generate additional questions about the financial qualifications of a utility's designated successor in interest. As with the ratemaking process, however, *see Seabrook,* ALAB-895, 28 NRC at 13-14, the bankruptcy process is a mechanism with the apparent ability to fashion an appropriate remedy (whether initially or upon reconsideration) that takes into account the various competing financial and regulatory interests. As such, the record ''accuracy'' considerations identified by the Commission in connection with the need to conduct an evidentiary hearing under Subpart K are not served by conducting such a proceeding to explore the possibility that something untoward can happen before the bankruptcy court.

FINANCIAL QUALIFICATIONS: CONSIDERATION IN SPENT FUEL POOL EXPANSION PROCEEDINGS (NEED FOR EVIDENTIARY HEARING)

RULES OF PRACTICE: HEARING PROCEDURES FOR SPENT FUEL POOL EXPANSION PROCEEDINGS (NEED FOR EVIDENTIARY HEARING)

Given the Commission's general premise that reasonable and prudent costs associated with safe facility operation will be recovered through the ratemaking process, *see Seabrook,* ALAB-895, 28 NRC at 13, and the utility's placement before the state public utility commission of its accounting and other bases for treating its costs as rate recoverable, the possibility that always exists that a utility regulatory commission prudence review could result in a disallowance of all or part of those costs is not an adequate basis upon which to require further evidentiary proceedings or for a finding that the utility lacks the requisite financial assurance.

LICENSING BOARDS: RESOLUTION OF ISSUES

RULES OF PRACTICE: HEARING PROCEDURES FOR SPENT FUEL POOL EXPANSION PROCEEDINGS (CREDIBILITY; ISSUE RESOLUTION)

As the Commission has noted, while there may be instances when issues involving expert or other testimony on key questions require evidentiary hearing followup and dialogue to be answered ''with sufficient accuracy,'' many issues, particularly those involving competing technical or expert presentations, frequently are amenable to resolution by a licensing board based on its evaluation of the thoroughness, sophistication, accuracy, and persuasiveness of the parties' submissions. *See Shearon Harris,* CLI-01-11, 53 NRC at 386.

RULES OF PRACTICE: OFFICIAL NOTICE

A matter that may not be officially noticed is one that is not '' 'a matter beyond reasonable controversy' '' and is not '' 'capable of immediate and accurate determination by resort to easily accessible sources of indisputable accuracy.' '' *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 75 (1991) (quoting *Government of Virgin Islands v. Gereau,* 523 F.2d 140, 147 (3d Cir. 1975), *cert. denied,* 424 U.S. 917 (1976) (citations omitted)).

TECHNICAL ISSUE(S) DISCUSSED

The following technical issue is discussed: Financial qualifications (spent fuel pool expansion).

MEMORANDUM AND ORDER

(Denying Request for Evidentiary Hearing and Terminating Proceeding)

Pending before the Licensing Board in this 10 C.F.R. Part 2, Subpart K proceeding are various party submissions addressing the issue of whether to designate the sole admitted contention of 10 C.F.R. § 2.714 Intervenors San Luis Obispo Mothers for Peace, et al. (collectively SLOMFP) for an evidentiary hearing in accordance with 10 C.F.R. § 2.1115. With its Technical Contention 2 (TC-2), Lead Intervenor SLOMFP and the participating 10 C.F.R. § 2.715(c) interested governmental entities challenge the December 2001 application of Pacific Gas and Electric Company (PG&E) for a 10 C.F.R. Part 72 license to construct and operate an independent spent fuel storage installation (ISFSI) at its Diablo Canyon Power Plant (DCPP) facility near San Luis Obispo, California.

Interested governmental participants San Luis Obispo County, California (SLOC), the Avila Beach Community Services District (ABCSD), and the California Public Utilities Commission (CPUC) argue that further exploration of the issues in an evidentiary hearing is warranted. In contrast, SLOMFP, the California Energy Commission (CEC), PG&E, and the NRC Staff contend that there is no need for an adjudicatory hearing, although they disagree about the merits disposition that should be rendered.

Also pending before the Board is a motion by SLOC, ABCSD, CEC, and CPUC requesting that the Board take official notice of certain facts appearing in a May 14, 2003 *Washington Post* news article regarding the financial condition of wholesale power unit National Energy Group (NEG), which like PG&E is a wholly owned subsidiary of holding company PG&E Corporation. SLOMFP supports the motion, while PG&E and the Staff oppose it.

For the reasons set forth below, the Licensing Board (1) denies the motion to take official notice of certain facts; and (2) finds that (a) SLOC, ABCSD, and CPUC have failed to show there is a genuine and substantial dispute of fact or law that only can be satisfactorily resolved by a further evidentiary hearing, and (b) based on the record before us, relative to the financial assurance challenge posited by SLOMFP contention TC-2 regarding its current request for bankruptcy reorganization under Chapter 11 of the United States Bankruptcy Code, PG&E has met its burden to demonstrate in accordance with 10 C.F.R. § 72.22(e) that it has the financial qualifications to carry out the activities outlined in its pending Part 72 application. Further, because all matters in controversy before the Board in connection with the requested application have been resolved in favor of license issuance without the need for further evidentiary presentations, in accordance with 10 C.F.R. § 2.764(a) we authorize the grant of the requested license, effective immediately upon the completion of all NRC Staff license review activities and the requisite findings that all requirements necessary to issue the requested Part 72 ISFSI license have been met,[1] and terminate this proceeding.

[1] Although there are no environmental issues pending before the Board, still incomplete relative to the PG&E Part 72 license application is the Staff's National Environmental Policy Act (NEPA) review, as is reflected in a memorandum dated July 2, 2003, to the Board and the other participants to this proceeding notifying them of the Staff's transmission to the CEC of a draft of the Staff's environmental assessment (EA) for CEC comments. *See* Memorandum from James R. Hall, Senior Project Manager, NRC Office of Nuclear Material Safety and Safeguards to Licensing Board and All Parties (July 2, 2003) (Board Notification 2003-01). The July 24, 2003 cover letter to the CEC transmitting an attached copy of the draft EA indicates that once CEC comments on the draft EA were received, they would be considered in making any appropriate revisions to the EA, which if issued in its current form would be accompanied by a *Federal Register*-published Staff finding of no significant impact.

I. BACKGROUND

A. Procedural Matters

The focus of this 10 C.F.R. Part 2, Subpart K proceeding is the December 21, 2001 application for a 20-year 10 C.F.R. Part 72 license that would permit PG&E to construct and operate an aboveground dry cask storage facility at its DCPP site near San Luis Obispo, California. Following a September 2002 initial prehearing conference regarding the standing of, and admissibility of contentions proffered by, various 10 C.F.R. § 2.714 Petitioners and the participation of 10 C.F.R. § 2.715(c) interested governmental entities, *see* Tr. at 1-419, in a December 2002 decision the Board granted standing to SLOMFP, the Santa Lucia Chapter of the Sierra Club, San Luis Obispo Cancer Action Now, the Central Coast Peace and Environmental Council, Peg Pinard, and the Avila Valley Advisory Council, with SLOMFP designated as the lead section 2.714 intervenor, *see* LBP-02-23, 56 NRC 413, 462 (2002). The Board also granted the requests for interested governmental participant status of SLOC, CEC, ABCSD, and the Port San Luis Harbor District (PSLHD).[2] *See id.*

The sole contention admitted by the Board, SLOMFP contention TC-2 entitled ''PG&E's Financial Qualifications Not Demonstrated,'' provides, ''PG&E has failed to demonstrate that it meets the financial qualifications requirements of 10 C.F.R. § 72.22(e).'' *See id.* at 441. In the proffered basis for this contention, SLOMFP cited a number of circumstances surrounding PG&E's pending contested bankruptcy, including (1) the fact that under PG&E's proposed reorganization plan PG&E would no longer own or operate DCPP or the ISFSI, but would transfer those functions to a new generating company, Electric Generation LLC (Gen), rendering PG&E's ability to recover operating costs from the rate base irrelevant; and (2) the pendency of a billion-dollar lawsuit by the California Attorney General against PG&E's parent company, PG&E Corporation, that could have serious consequences for PG&E's financial qualifications.[3] In admitting the contention, the Board found that

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[2] PSLHD subsequently sought approval to withdraw from the proceedings, *see* Notice of Intent and Petition of the [PSLHD] To Withdraw from Participation in the Proceedings as an Interested Governmental Entity (Jan. 6, 2003), and the Board accepted the withdrawal, *see* Licensing Board Order (Accepting 10 C.F.R. § 2.715(c) Participant Withdrawal) (Jan. 16, 2003) (unpublished).

[3] During the California energy crisis of 2000, PG&E accumulated a large amount of debt created by an imbalance between electricity costs and revenues, alleged by PG&E to be the result of a flawed electricity deregulation plan. *See* PG&E Summary at 14-15. In April 2001, PG&E filed a voluntary petition for reorganization under Chapter 11 of the United States Bankruptcy Code to restructure this debt while continuing to conduct day-to-day operations as a solvent debtor-in-possession under the

(Continued)

> SLOMFP has raised relevant and material concerns regarding the impact of PG&E's bankruptcy on its continuing ability to undertake the new activity of constructing, operating, and decommissioning an ISFSI by reason of its access to continued funding as a regulated entity or through credit markets.

See id. at 442. We also noted in our December 2002 ruling that any matters relative to either the California Attorney General's unresolved lawsuit against PG&E Corporation for alleged fraud or the financial qualifications of any entities that might in the future construct or operate the ISFSI were not litigable under this contention. *See id.* at 442-43.

After granting the timely requests of PG&E and the Staff to invoke the Subpart K hybrid hearing procedures pursuant to 10 C.F.R. § 2.1109, the Board established a timetable for utilizing those procedures, which provided for an abbreviated discovery period. *See* LBP-02-25, 56 NRC 467, 476, 478 (2002). On February 13, 2003, the Board granted both a request by the CPUC to participate in the proceedings under 10 C.F.R. § 2.715(c), *see* Request of [CPUC] To Participate as of Right Under 2.715(c) (Jan. 28, 2003), as well as a motion by CEC, SLOC, CPUC, and ABCSD to provide joint responses to discovery, *see* Motion by [CEC, SLOC, ABCSD, CPUC] To Provide Joint Responses to Discovery (Jan. 28, 2003). *See* Licensing Board Order (Granting Motion To Participate as 10 C.F.R. § 2.715(c) Interested Governmental Entity) (Feb. 13, 2003) at 1-2 (unpublished). The Board thereafter conducted 10 C.F.R. § 2.715(a) limited appearance sessions for members of the public on March 23-24, 2003, in San Luis Obispo, California.

On April 11, 2003, the parties and interested governmental participants provided the Board with written summaries of the facts, data, and arguments on which they intended to rely at an oral argument, during which the parties and interested governmental participants would discuss whether an evidentiary hearing regarding the admitted contention was merited. *See* Summary of Facts, Data, and Arguments on Which the [IGP[4]] Intend To Rely at the Subpart K Oral Argument (Apr. 11, 2003) [hereinafter IGP Summary]; Summary of Facts, Data, and Arguments on Which the [CEC] Intends To Rely at the Subpart K Oral Argument (Apr. 11, 2003) [hereinafter CEC Summary]; Summary of Facts, Data, and Arguments on Which [PG&E] Will Rely at the Subpart K Oral Argument (Apr. 11, 2003) [hereinafter PG&E Summary]; NRC Staff Brief and Summary of Relevant Facts,

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protection of the bankruptcy court. *See id.* Further background on the PG&E bankruptcy and the California Attorney General's lawsuit are provided in our decision in LBP-02-15, 56 NRC 42, 46-47 (2002), denying intervenor requests to stay this proceeding.

[4] Although CEC, ABCSD, CPUC, and SLOC originally elected to file joint responses to the other parties' discovery requests, the CEC chose to submit its own written summary apart from the other three interested governmental participants. We refer to ABCSD, CPUC, and SLOC collectively hereinafter as the ''IGP.''

Data and Argument upon Which the Staff Proposes To Rely at Oral Argument on Technical Contention 2 (Apr. 11, 2003) [hereinafter Staff Summary]. Rather than submitting an initial summary, SLOMFP notified the Board and other parties of its intention to file a response to the other parties' summaries. *See* Notice by [SLOMFP] of Intent To File Response Pleading (Apr. 11, 2003) [hereinafter SLOMFP Notice]. Pursuant to the Board's timetable set forth in LBP-02-25, the parties timely filed their responses to the other parties' written summaries on April 28, 2003. *See* Response by [SLOMFP] to Briefs and Factual Summaries Regarding PG&E's Financial Qualifications To Build and Operate Diablo Canyon ISFSI (Apr. 28, 2003) [hereinafter SLOMFP Response]; Response of [PG&E] to the Initial Written Summaries of the [IGP] and the [CEC] (Apr. 28, 2003) [hereinafter PG&E Response]; NRC Staff Brief in Response to Initial Written Summaries of Relevant Facts, Data and Argument upon Which the Opposing Parties Propose To Rely at Oral Argument on Technical Contention TC-2 (Apr. 28, 2003) [hereinafter Staff Response]; [CEC] Response to [PG&E] and [NRC] Staff (Apr. 28, 2003) [hereinafter CEC Response]; [IGP] Response to [PG&E] and the [NRC] Staff (Apr. 28, 2003) [hereinafter IGP Response].

The IGP, along with the CEC, thereafter requested that the Board take official notice of facts appearing in a *Washington Post* news article regarding a PG&E affiliate's financial qualifications. *See* Motion by the [IGP and CEC] Requesting the [Board] To Take Official Notice Under 10 C.F.R. § 2.743(i)(1) (May 15, 2003) [hereinafter IGP/CEC Official Notice Motion]. Then, on May 19, 2003, during a day-long oral argument held in San Luis Obispo, California, the parties and interested governmental entities presented to the Board their positions on whether there were disputed factual or legal issues relative to SLOMFP contention TC-2 that merited further consideration in an evidentiary hearing. *See* Tr. at 452-617. Thereafter, pursuant to Board authorization granted during the oral argument, *see* Tr. at 462, on May 27, 2003, both PG&E and the Staff filed responses opposing the IGP's official notice motion. *See* Response of [PG&E] to Motion by the [IGP] Requesting Official Notice (May 27, 2003) [hereinafter PG&E Official Notice Response]; Reply of NRC Staff to [IGP] Motion That Board Take Official Notice of a Newspaper Blurb Regarding Financial Difficulties of PG&E's [NEG] (May 27, 2003) [hereinafter Staff Official Notice Response].

II. ANALYSIS

A. Standards Governing 10 C.F.R. § 2.1115 Determination Regarding the Need for an Evidentiary Hearing To Resolve an Admitted Issue

The Subpart K procedures governing this proceeding were established in response to a congressional mandate found in the Nuclear Waste Policy Act of 1982 (NWPA), 42 U.S.C. § 10101 *et seq.* In licensing proceedings involving the

expansion of spent nuclear fuel storage at civilian nuclear power reactor sites, the NWPA provides that parties to the proceeding are to be afforded an opportunity to present facts, data, and arguments, by way of written summaries, sworn testimony, and oral argument. *See* 42 U.S.C. § 10154(a)-(b). Section 2.1115(a) of 10 C.F.R., which incorporates additional NWPA directives, provides that based on the oral argument and written submissions, the presiding officer shall ''[d]esignate any disputed issues of fact, together with any remaining issues of law, for resolution in an adjudicatory hearing,'' and ''[d]ispose of any issues of law or fact not designated for resolution in an adjudicatory hearing.'' To designate an issue for hearing, there must be:

> a genuine and substantial dispute of fact which can only be resolved with sufficient accuracy by the introduction of evidence in an adjudicatory hearing; and . . . [t]he decision of the Commission is likely to depend in whole or in part on the resolution of that dispute.

Id. § 2.1115(b)(1)-(2). In addition, notwithstanding the agency's rules of practice that place the ultimate burden of proof of any substantive matter at issue (i.e., the admitted SLOMFP contention) on the applicant, the party seeking adjudication in a Subpart K proceeding bears the burden of demonstrating the existence of disputed material facts requiring an evidentiary hearing. *See* 50 Fed. Reg. 41,662, 41,667 (Oct. 15, 1985).

Also worth noting in this context is the Commission's explanation regarding the matter of the resolution of factual questions in the context of a Subpart K proceeding:

> The short of the matter is that the NWPA and our rule implementing it (Subpart K) contemplate merits rulings by licensing boards based on the parties' written submissions and oral arguments, except where a board expressly finds that ''accuracy'' demands a full-scale evidentiary hearing. Subpart K's abbreviated hearing approach is in harmony with other NRC rules, such as Subparts L and M, that authorize informal adjudicatory decision-making without the panoply of full trial-type processes. *See* 10 C.F.R. § 2.1201 *et seq.* (Subpart L); 10 C.F.R. § 2.1301 *et seq.* (Subpart M).
>
> Licensing boards are fully capable of making fair and reasonable merits decisions on technical issues after receiving written submissions and hearing oral arguments. The Commission is a technically oriented administrative agency, an orientation that is reflected in the makeup of its licensing boards. Most licensing boards have two, and all have at least one, technically trained member. In Subpart K cases, licensing boards are expected to assess the appropriate evidentiary weight to be given competing experts' technical judgments, as reflected in their reports and affidavits. The inquiry is similar to that performed by presiding officers in materials licensing cases, where fact disputes normally are decided ''on the papers,'' with no live evidentiary hearing. *See, e.g., Hydro Resources, Inc.,* CLI-01-4, 53 NRC at 45; *Curators of the University of Missouri,* CLI-95-1, 41 NRC [71,] 118-20 [(1995)].

> The NRC's administrative judges, in other words, and the Commission itself, are accustomed to resolving technical disputes without resort to in-person testimony.
>
> There may, of course, be issues, such as those involving witness credibility, that cannot be resolved absent face-to-face observation and assessment of the witness. Or there may be issues involving expert or other testimony where key questions require followup and dialogue to be answered ''with sufficient accuracy.'' In these kinds of cases, Subpart K contemplates further evidentiary hearings. Many issues, however, particularly those involving competing technical or expert presentations, frequently are amenable to resolution by a licensing board based on its evaluation of the thoroughness, sophistication, accuracy, and persuasiveness of the parties' submissions.

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 385-86 (2001), *petitions for review denied,* 47 Fed. Appx. 1 (2002) (per curiam).

With this background in mind,[5] we turn to the participants' written submissions and oral argument presentations.

B. Positions of Parties and Section 2.715(c) Participants Regarding Need for Further Evidentiary Hearing on SLOMFP Contention TC-2

1. SLOMFP Position

SLOMFP argues that because no material dispute exists, no evidentiary hearing is warranted. *See* Tr. at 464. Given the procedural and substantive posture of the instant licensing proceeding, SLOMFP asserts the Board cannot find that PG&E satisfies the financial assurance requirements of 10 C.F.R. § 72.22(e). *See id.*

SLOMFP contends that rather than making a predictive finding that PG&E will have sufficient funds to operate the proposed ISFSI safely for the entire term of the license as required by section 72.22(e)(2), *see id.* at 466, the Staff has made a reasonable assurance finding only for '' 'current and near-term expenditures related to the ISFSI,' '' SLOMFP Response at 3 n.2 (*quoting* Staff Summary, Affidavit of Michael A. Dusaniwskyj at 4 (Apr. 11, 2003)). Accordingly, SLOMFP argues that because the Staff has failed to make the required safety finding that PG&E is in compliance with section 72.22(e), absent a waiver of that regulation the Board has no basis upon which to approve the issuance of the requested license. *See* Tr. at 465.

SLOMFP further asserts that notwithstanding PG&E's reliance on electric rates and/or operating revenue as sources of funding for the ISFSI, PG&E has failed substantively to demonstrate its financial qualifications. *See* SLOMFP

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[5] *See also Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-00-12, 51 NRC 247, 254-55 (2000), *petition for review denied,* CLI-01-11, 53 NRC at 390-92.

Response at 2-3. With respect to PG&E's ability to recoup funds from the rate base, SLOMFP points out that PG&E concedes that its ability to do so depends on the outcome of the pending bankruptcy case. *See id.* at 3. Moreover, SLOMFP contends that PG&E attempts to show it will have access to the rate base only while the bankruptcy case is pending, rather than over the license term of the ISFSI as required by section 72.22(e)(2). *See id.* According to SLOMFP, if the PG&E reorganization plan is approved by the bankruptcy court, then PG&E will rely on its successors' ability to generate operating revenues or on cash it has on hand. *See id.* at 4. Again, SLOMFP challenges PG&E's apparent willingness to provide assurances of adequate funding for the facility through cash on hand or operating revenues only for a limited period of time during the bankruptcy. *See id.*

SLOMFP further argues that if the Board were to approve the issuance of the ISFSI license, and PG&E were to commence construction in 2005 as planned using cash reserves, and the bankruptcy court were then to approve the PG&E reorganization plan, and the CPUC subsequently were to deny PG&E rate recovery, PG&E would be forced to rely on operating revenues for covering the costs of the ISFSI. *See id.* at 5. If each of these contingencies occurs, because neither PG&E nor the Staff represents that such revenues will be sufficient to ensure safe operation of the facility, SLOMFP argues that the issue of PG&E's financial qualifications ''will have fallen through the cracks of the regulatory system'' to the public's detriment. *Id.*

In addition, SLOMFP questions PG&E's ability adequately to support decommissioning of the ISFSI. *See id.* at 6. In SLOMFP's view, PG&E has failed sufficiently to resolve concerns raised by the CPUC relative to (1) PG&E's recently missed $10 million payment into the DCPP decommissioning fund; (2) the potential effects of reorganization on the fund; and (3) possible reluctance on the part of the CPUC to permit the transfer of the decommissioning fund to a non-CPUC regulated entity. *See id.* at 6-7.

2. CEC Position

The CEC agrees with SLOMFP that an evidentiary hearing is not warranted in this proceeding. *See* Tr. at 473. In making that assertion, however, the CEC requests that the Board condition approval of the PG&E license on the bankruptcy court's adoption of the CPUC reorganization plan — under which PG&E would remain the licensee of DCPP and the ISFSI — rather than the PG&E plan. *See* CEC Summary at 14.

The CEC's position is based in part on its concern about the adequacy of the Staff's finding of PG&E's financial assurance. In particular, given Staff statements that (1) the Staff considered the information submitted in the PG&E application describing the utility's bankruptcy plan, and (2) the Staff's considera-

tion of the application was based on PG&E's current status as a CPUC-regulated entity with access to ratepayer functions, which in the CEC's view are contradictory in nature, the CEC asserts it remains unclear on what basis the Staff relied in reaching its determination. *See* CEC Summary at 11, 12. The CEC further argues that while the pending bankruptcy creates uncertainty with respect to the future control of the ISFSI and future sources of funding, additional uncertainty as to the identity and financial qualifications of the eventual licensee would be created in the event the bankruptcy court approves the PG&E reorganization plan. *See id.* at 12; Tr. at 598, 600. On the one hand, according to the CEC, PG&E can demonstrate its financial qualifications only through access to the rate base and ratepayer funding. On the other hand, the CEC maintains, the CPUC plan is the only viable reorganization plan that ensures PG&E will retain access to electric rate revenues. As a consequence, the CEC concludes, the Board must condition Part 72 license issuance on the licensee remaining a CPUC-regulated entity. *See* Tr. at 13-14; *see also* CEC Response at 3.

3. IGP Position[6]

The IGP contend the Board should find, as a matter of law, that the impact of bankruptcy on PG&E's ability to construct, operate, and decommission the proposed ISFSI precludes PG&E from demonstrating its financial qualifications in satisfaction of section 72.22(e). *See* IGP Summary at 43. In the alternative, the IGP request that the Board hold an evidentiary hearing to compel further testimony from the Staff. *See id.*

With respect to PG&E's ability to fund the construction and operation of the ISFSI, relying on the sworn declaration of CPUC Public Utilities Regulatory Analyst Truman L. Burns, *see id.* Appendix (Sworn Testimony of Truman L. Burns (Apr. 10, 2003)), the IGP assert that even during the pendency of the bankruptcy, PG&E may not have access to continued funding from electric rates as a CPUC-regulated utility. *See id.* at 27. According to the IGP, there is a ''substantial likelihood'' that because PG&E is in bankruptcy and anticipates that its successor will not be regulated by the CPUC, the CPUC would not permit PG&E to pay for ISFSI construction costs through rate recovery. *Id.* at 20 n.30. The IGP further maintain that after it emerges from bankruptcy, PG&E will not be able to demonstrate financial assurance for ISFSI construction and operation because it cannot know whether it will be a CPUC-regulated entity post-bankruptcy. *See id.* at 28-29, 31. In addition, according to the IGP, PG&E cannot

[6] Although the IGP jointly filed a summary of their common position, the CPUC and the ABCSD each presented their own additional views at the May 19 oral argument. As a consequence, we first set forth the shared arguments of the IGP.

establish its ability to meet the section 72.22(e) requirements without relying on inadmissible evidence, i.e., the financial details concerning PG&E's successor under its bankruptcy plan. *See id.* at 29-30. Further, in response to PG&E's references to its large income figures versus the relatively small ISFSI-related costs, the IGP argue that PG&E's ''[g]eneralized blather about big numbers of dollars'' does not demonstrate its ability to cover ISFSI expenses over the 20-year license term. IGP Response at 6.

In challenging PG&E's ability adequately to fund the ISFSI decommissioning, the IGP point to PG&E's failure to make a $10 million payment into the decommissioning trust fund in 2000 to suggest that PG&E may not maintain the decommissioning funding levels authorized by the CPUC on an ongoing basis. *See* IGP Summary at 34. The IGP also argue that PG&E erroneously relies on CPUC-authorized rates to fund decommissioning, considering that under the PG&E reorganization plan, its successor would not be a CPUC-regulated entity. *See id.* at 34-35. Another possible consequence of reorganization as proposed by PG&E, according to the IGP, is PG&E's inability to use monies collected for decommissioning of DCPP to decommission the ISFSI, which would force PG&E to fund decommissioning through other monies in the trust fund (i.e., operating revenues). *See id.* at 35. Further impacting PG&E's financial assurance demonstration, the IGP contend, is the unresolved issue of whether PG&E can transfer its beneficial interest in the decommissioning trust fund through the bankruptcy court without CPUC approval. *See id.* at 36. Finally, the IGP argue that PG&E cannot make its required showing under section 72.22(e) relative to decommissioning without relying on evidence the Board has deemed irrelevant or outside the scope of the proceeding, that is, information regarding the details of the financial qualifications of PG&E's successor under its bankruptcy plan. *See id.* at 36-37.

Alternatively, the IGP posit that there remain genuine and substantial factual disputes that can be resolved only by the introduction of evidence in an adjudicatory hearing. *See id.* at 38. For instance, the IGP assert that to the extent PG&E's written summary introduces more detailed information concerning expected revenues and its continuing ability to fund the construction and operation of the ISFSI, that information must be subjected to cross-examination at a hearing, because it would not have been previously evaluated by the IGP's experts. *See id.* at 39, 41. A second unresolved factual issue, according to the IGP, is the extent to which the Staff considered what they label as inadmissible information in making its ''conclusory'' financial assurance determination. *See id.* at 39-40; Tr. at 481-82. The IGP contend that absent a hearing, this factual issue cannot be resolved because of the Staff's ''marked unwillingness to provide specific answers'' to the IGP's questions on this point during discovery. IGP Summary at 40; *see also* Tr. at 482. With respect to decommissioning, the IGP argue that the issue of at what rate the post-bankruptcy ISFSI licensee would continue

contributing to the decommissioning fund if it were no longer a CPUC-regulated entity cannot be resolved by the Board without expert opinions presented at a hearing. *See* IGP Summary at 42. Finally, the IGP aver that the decision of the Commission is likely to depend on the resolution of these factual matters. *See id.* at 41, 42.

At the oral argument, the CPUC additionally took the position that under normal circumstances, the proposed ISFSI — ''probably a useful and reasonable project'' — would likely be paid for through rates. Tr. at 489. PG&E's pending bankruptcy and proposed post-bankruptcy corporate structure, however, create an anomalous situation in which the CPUC may not approve the use of funds collected from ratepayers to cover the ISFSI's construction costs. *See* Tr. at 490. Based on what appears to be two irreconcilable positions taken by PG&E before the bankruptcy court, on the one hand, and the Commission, on the other, the CPUC asserts that the Board should postpone making any decision on the ISFSI license application until after the bankruptcy proceeding is concluded. *See* Tr. at 492-93.

The ABCSD expressed a similar concern regarding what it viewed as PG&E's inconsistent positions and also suggested that the Board delay the proceeding pending the resolution of the bankruptcy proceeding. *See* Tr. at 501. If, however, the Board chose to proceed, the ABCSD, in agreement with the other IGP, argued that an adjudicatory hearing was necessary. *See* Tr. at 501-02.

4. PG&E Position

PG&E asserts that the Board can dismiss contention TC-2 without holding an evidentiary hearing because the contention does not raise factual issues that are either substantial or central to the Commission's decision. *See* PG&E Summary at 6-7.

Relying for support on the affidavits of PG&E Lead Budget Coordinator Robert L. Kapus and PG&E Business and Financial Planning Director Walter L. Campbell, *see id.* Exhs. A & B (Affidavit of Robert L. Kapus (Apr. 8, 2003) and of Walter L. Campbell (Apr. 9, 2003); *see also* PG&E Response Exh. A (Supplemental Affidavit of Walter L. Campbell (Apr. 25, 2003)), PG&E estimates (in 2001 dollars) that it will cost $63 million to construct the ISFSI, $69 million to operate a fifty-cask facility for the initial license term (from the present until 2025),[7] and $12.5 million to decommission the ISFSI.[8] *See* PG&E Summary at 8.

[7] PG&E estimates the operating costs of the ISFSI during a second license period from 2026 to 2040, which would include an additional eighty-eight casks, to be $107 million. *See* PG&E Summary at 8.

[8] Factoring in allowances for financial contingencies, the decommissioning cost estimate is $13.9 million. *See* PG&E Summary at 21. The costs for demolition and disposal of noncontaminated materials are estimated to be an additional $6.5 million. *See id.*

PG&E asserts that it will obtain the necessary funds to cover the construction and operating costs of the facility from either electric rates or electric operating revenues, without resorting to borrowing money to pay ISFSI expenses. *See id.* at 9-10. Because the costs associated with the ISFSI represent reasonable and prudent DCPP operating expenses and are in the public interest, PG&E expects to cover those costs through traditional cost-of-service rates, as it is presently entitled to pursuant to an April 4, 2002 CPUC order. *See id.* at 10. PG&E further argues that its substantial operating revenues — over $10 billion for the 12-month period ending December 31, 2002 — would be more than adequate to cover the expenses associated with the ISFSI, which would be incurred in phases. *See id.* In addition, PG&E maintains that the $3 billion it currently possesses as cash on hand would be sufficient to cover ongoing costs associated with the development, construction, operation, and decommissioning of the ISFSI while PG&E remains in bankruptcy, although much of that cash is designated to repay PG&E's creditors and could only be used with bankruptcy court approval. *See id.* at 11-12. Moreover, in the event the CPUC disallows the recovery of ISFSI costs through rates, PG&E avers that any expenses would be sufficiently covered by cash on hand or electric operating revenues. *See id.* at 12. Thus, PG&E argues, not only is PG&E currently able to pay the necessary costs associated with the ISFSI pending resolution of the bankruptcy proceeding, but there is also reasonable assurance that it will continue to be able to pay those costs following the outcome of the case and the company's emergence from bankruptcy (in whatever form). *See id.* at 14. Notwithstanding the IGP's argument that there exists a substantial likelihood that the CPUC will disallow rate recovery of ISFSI construction costs while PG&E remains in bankruptcy, PG&E asserts that the IGP's argument fails to establish a genuine and substantial issue. *See* PG&E Response at 11-12.

In response to IGP allegations regarding the uncertainty of PG&E's future ability to recover costs related to the ISFSI, PG&E contends that NRC regulations do not require PG&E to provide financial projections of revenues for the full 20-year ISFSI license term. *See id.* at 18. Rather, the reasonable financial assurance required by section 72.22(e) is provided primarily by PG&E's current status as a rate-regulated entity and secondarily by the company's financial position as demonstrated in its most recent annual report. *See* Tr. at 558, 559. Moreover, PG&E argues, inquiries concerning the uncertain financial qualifications of a possible future nonutility licensee are speculative and premature at this juncture. *See* PG&E Summary at 19.

Relative to covering the costs of decommissioning, PG&E asserts that its ongoing contributions to the DCPP decommissioning fund (collected through electric rates) specifically include monies for decommissioning the proposed ISFSI. *See id.* at 21-22. In this regard, PG&E intends to demonstrate financial assurance for decommissioning by using the external sinking fund method, pursuant to 10 C.F.R. § 72.30(c)(5). *See id.* at 22. While PG&E proposes to deposit ISFSI

decommissioning monies into the decommissioning fund established for DCPP, the ISFSI funds would be distinguished and segregated from the DCPP funds. *See id.* Responding to claims in connection with the uncertain outcome of the bankruptcy proceeding's effect on PG&E's financial assurance of decommissioning, although acknowledging the basis for financial assurance may change following the bankruptcy court's decision, PG&E argues it would be premature for the Board to address that change at the present time. *See id.* at 23. Relative to the $10 million missed DCPP decommissioning fund payment, PG&E explains that this missed contribution resulted from the company's cash flow problems during the 2000 California energy crisis, and although it is not now feasible simply to deposit the $10 million into the fund because of tax implications, the issue is being dealt with in the CPUC ratemaking process. *See* PG&E Response at 15.

PG&E additionally contends that, contrary to the suggestion of the IGP, it does not rely on inadmissible information contained in the Part 50 license transfer application to demonstrate its financial qualifications with respect to the ISFSI application. *See* PG&E Response at 14.

5. Staff Position

As does PG&E, the Staff argues that SLOMFP contention TC-2 raises no genuine and substantial dispute with respect to a material issue that would warrant an evidentiary hearing. *See* Staff Summary at 7. Relying on PG&E representations that ISFSI costs would be covered by revenues generated from electric rates or external financing (if needed), the Staff indicates it has concluded PG&E has met the financial requirements of section 72.22(e) for construction, operation, and decommissioning of the proposed ISFSI. *See id.* at 8. Rather than offering any genuine dispute, according to the Staff, the other parties merely attempt to second-guess this Staff determination of financial assurance. *See id.* In defense of its review, which it supports with the affidavit of NRC economist Michael A. Dusaniwskyj, *see id.* unnumbered attach. (Affidavit of Michael A. Dusaniwskyj (Apr. 11, 2003)), the Staff observes that the finding was made by Staff economists after a review of the information provided by PG&E and, based on their educational training and work-related experience, in their judgment PG&E had demonstrated its financial qualifications. *See id.* While the Staff acknowledges it was aware of the ongoing bankruptcy proceeding and the potential consequences of that proceeding while it was conducting its review, the Staff asserts that so long as PG&E is the applicant for the ISFSI license, there is reasonable assurance based on PG&E's ability to recover costs through electric generation and rate recovery. *See id.* at 9.

Responding to the IGP argument that PG&E cannot demonstrate it will have revenues sufficient to construct, operate, and decommission the ISFSI over the

proposed 20-year license term, the Staff contends the regulations do not require PG&E to make such a demonstration. *See* Staff Response at 6; Tr. at 516-17. Instead, the regulations require the Staff to find reasonable assurance of financial qualification, which can be based on plausible assumptions and forecasts and necessarily requires some predictive judgments about an applicant's future financial situation. *See* Staff Response at 6. The Staff avers the information required by section 72.22(e) was fully provided by PG&E in its license application and in its June 7, 2002 response to the Staff's oral request for additional information. *See id.* at 7. In addressing the concern of Staff reliance on inadmissible evidence, the Staff maintains its determination was based on PG&E's current organizational structure and status as a CPUC-regulated utility, without regard to the outcome of the pending bankruptcy proceeding, although such consideration may arise in the future in the event a bankruptcy determination results in a proposed successor licensee. *See id.* at 8-9.

C. IGP Motion To Take Official Notice

On May 15, 2003, the IGP along with the CEC filed a motion requesting that the Board take official notice of certain facts appearing in a May 14, 2003 *Washington Post* news article concerning the financial condition of NEG, PG&E's wholesale power unit. *See* IGP/CEC Official Notice Motion at 1. According to the IGP/CEC motion, the *Washington Post* reported that NEG had defaulted on $2.9 billion in bonds, was likely to file for Chapter 11 bankruptcy protection, and had suffered a first-quarter loss of $261 million. *See id.* Further, the IGP/CEC motion avers, this first-quarter loss contributed to all but $93 million of a PG&E first-quarter loss totaling $354 million. *See id.*

At the May 19 oral argument, SLOMFP voiced its general support for the IGP/CEC motion, but declined to submit additional filings on the matter. *See* Tr. at 461. In opposing the motion, PG&E argues that the facts in the article are irrelevant to the instant licensing proceeding in that NEG is a wholly owned subsidiary of PG&E's parent holding company, PG&E Corporation, and is a completely separate legal entity from Applicant PG&E Company. *See* PG&E Response to Official Notice Motion at 1-2. Further in this regard, the NEG first-quarter loss referenced in the article, according to PG&E, contributed to a loss suffered by PG&E Corporation, not by Applicant PG&E. *See id.* at 2. The Staff takes a similar position. Besides noting that mere publication of ''facts'' in the *Washington Post* does not render them facts, the Staff asserts it is ''far from apparent'' what relevance NEG's financial problems have on the instant proceeding, given the distant affiliation between NEG and Applicant PG&E. *See* Staff Response to Official Notice Motion at 2-3.

D. Licensing Board Determinations

In reviewing the arguments of the parties and interested governmental participants relative to SLOMFP contention TC-2, two related points should be noted. As the agency's procedural rules make clear, the central focus of an adjudicatory proceeding such as this one is the contentions, or issue statements, that an intervening party raises relative to a license application like that proffered by PG&E. *See* 10 C.F.R. § 2.714(b)(2)(iii). And in this instance, as we noted in our December 2002 decision, *see* LBP-02-23, 56 NRC at 442, the contention admitted by the Board had as its focus the purported impact that the PG&E bankruptcy had upon its ability to meet the 10 C.F.R. Part 72 financial assurance requirements, particularly as that bankruptcy impacts PG&E's status as a regulated utility that otherwise would have access to revenues derived from its rate base or from credit markets to fund ISFSI construction and operation.[9]

By the same token, agency precedent also makes clear that what is not at issue in our proceedings is the adequacy of the manner in which the Staff conducts its review of a technical/safety matter such as that raised under SLOMFP contention TC-2.[10] *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 807 (1983). Thus, arguments contending that the PG&E application cannot be granted based on a Staff failure to perform

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[9] In that same ruling, we also observed that the mere fact of PG&E's filing for bankruptcy protection did not by itself indicate that it was no longer financially qualified to continue day-to-day operations at the DCPP facility, noting that the Commission, after closely monitoring the operations at DCPP, had found PG&E's financial situation had no impact on its ability to operate the facility safely and in accordance with agency regulations. *See* LBP-02-23, 56 NRC at 442. Nonetheless, because Intervenor SLOMFP had raised relevant and material concerns regarding PG&E's financial ability to undertake the *new* activity of constructing, operating, and decommissioning the ISFSI, the Board admitted its contention TC-2. *See id.*

Also regarding its admission of SLOMFP contention TC-2, the Board notes an apparent misstatement in its decision regarding one of the numbers of the bases upon which it acted. Although its opinion correctly cited the page numbers in the SLOMFP contentions pleading that includes the relevant discussion that the Board found provided support for an admissible contention, i.e., pages 14-17, it referred to those pages as relating to bases ''two and three.'' *Id.* In fact, they relate to bases three and five. Although there is a discussion regarding basis four on page 15 as well, it clearly was rejected by the Board as a basis for the contention given that it relates to the type of ''post-bankruptcy'' matter that was found to be outside the scope of the proceeding. *See id.* at 443.

[10] This, of course, is not to say that the Staff's application review efforts are totally irrelevant relative to safety matters admitted for litigation. Clearly, the Staff's position on whether some aspect of an application that is challenged by a contention meets the agency's regulatory requirements, which generally is presented to the Board as an evidentiary input, is the product of the Staff's review process. But commonly it is the substantive sufficiency of that product, not the particular process by which it was generated, that is the matter of concern to the Board as it seeks to determine to what degree the Staff's position does or does not support/corroborate a particular contention as it challenges an application.

as a result of what it did or did not consider in reaching a licensing determination, *see* IGP Summary at 39-41; CPUC Summary at 8-12, are not ones that support the need for an additional evidentiary presentation under section 2.1115.[11]

More to the point are Intervenor and IGP/CPUC arguments with regard to whether an additional evidentiary presentation is needed under section 2.1115 or whether, absent such a hearing, they should prevail on SLOMFP contention TC-2 as that issue statement is directed to the impact of the PG&E bankruptcy on its financial ability to construct and operate the planned ISFSI. And in this regard, although now criticized by some of the participants, *see* Tr. at 614, in admitting the contention the Board essentially eliminated from consideration concerns based on the post-bankruptcy structure of PG&E. That structure could take one of two forms, roughly as outlined by the competing proposals now before the bankruptcy court. Under one, the CPUC plan, PG&E would remain a regulated entity subject to CPUC control. Certainly the CPUC, and apparently the CEC as well, do not object to (and seemingly endorse) this approach. *See* Tr. at 474-75, 489, 496. This perhaps should not come as a surprise, as it is wholly consistent with the Commission's general approach to financial assurance for regulated entities, i.e., the premise ''that reasonable and prudent costs of safely operating a nuclear power plant will be recovered through the ratemaking process.'' *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 13, *rev'd on other grounds,* CLI-88-10, 28 NRC 573 (1988). If the CPUC bankruptcy plan (or something like it) should prevail, PG&E would remain both the ISFSI licensee and subject to state ratemaking authority, creating the financial assurance situation contemplated by the Commission.[12] Nothing on the evidentiary record presented by the participants now suggests that such a post-bankruptcy result has any relevance to the financial qualifications of PG&E relative to its ISFSI application or requires imposition of the type of post-bankruptcy contingent license condition requested by the CEC.

The same is true with respect to the other reasonably foreseeable bankruptcy proceeding result — adoption of the PG&E reorganization plan under which any ISFSI license would be transferred to new entity Gen. It is apparent that for this to occur, there would have to be a PG&E application requesting NRC

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[11] Additionally, while the IGP now make claims about a lack of a promised Staff response to discovery requests for information relative to this matter, *see* Tr. at 488, these concerns were never presented to the Board during the allotted discovery period in the form of a motion to compel or any other request for Board relief.

[12] Although not part of the evidentiary record before us, we do note that the possibility that this outcome may accrue seems to have increased, based on post-hearing information submitted to the docket indicating that a pending bankruptcy settlement proposed by PG&E and the CPUC staff would result in PG&E remaining the licensee for any DCPP ISFSI and subject to CPUC ratemaking authority. *See* Letter from David Repka, PG&E Counsel, to the Licensing Board at 2 (June 24, 2003).

permission to amend the Part 72 ISFSI license to transfer it to Gen, which likewise would be subject to a hearing at which, presumably, the issue of Gen's financial qualifications could be litigated.[13] As such, in the context of SLOMFP contention TC-2, the impacts of this post-bankruptcy result clearly are irrelevant to, as well as outside of the scope of, this proceeding, as are the various Intervenor and IGP concerns based on alleged uncertainties relative to the post-bankruptcy period during which a nonregulated entity might be responsible for funding ISFSI construction, operation, and decommissioning.[14]

What then are left for consideration are the concerns about PG&E's financial assurance to construct and operate the facility during the period that it will continue in bankruptcy. In this regard, Intervenor SLOMFP and the IGP have raised several different items they assert either establish, or require a further

[13] Of course, at that hearing the various intervenor and IGP concerns about such matters as the funding mechanism for ISFSI construction, operation, and decommissioning by a nonregulated entity could be raised as financial assurance issues. It should also be added that, to the extent that hearing would be conducted under the more informal procedures of 10 C.F.R. Part 2, Subpart M, this is not a reason to allow future license transfer issues to be introduced into this Subpart K proceeding.

[14] It has been suggested that this post-bankruptcy scenario deserves additional attention in the context of this proceeding because of the possibility that the bankruptcy court may do something in ruling on the PG&E reorganization plan that would impede the Commission from granting a license transfer from PG&E to a newly created entity such as Gen, leaving the ISFSI license, and any ISFSI stored fuel, in regulatory limbo. *See* Tr. at 601-07, 611. As is the case with a utility subject to a ratemaking process governing revenue for facility operation, the possibility exists that the outcome of the bankruptcy process could generate additional questions about the financial qualifications of a designated PG&E successor in interest. As with the ratemaking process, however, *see Seabrook,* ALAB-895, 28 NRC at 13-14, the bankruptcy process is a mechanism with the apparent ability to fashion an appropriate remedy (whether initially or upon reconsideration) that takes into account the various competing financial and regulatory interests. As such, we are unable to conclude that the record ''accuracy'' considerations identified by the Commission in connection with the need to conduct an evidentiary hearing under Subpart K are served by conducting such a proceeding to explore the possibility that something untoward can happen before the bankruptcy court.

Moreover, as to the suggestion this situation counsels that we await the conclusion of the bankruptcy proceeding, *see* Tr. at 607, putting aside the fact that we have previously denied a closely related request, *see* LBP-02-15, 56 NRC at 48-51, we think it is worth noting that these same considerations certainly are in play relative to the transfer application proceeding regarding the PG&E operating licenses for DCPP. Nonetheless, subsequent to a Commission issuance denying a stay in that proceeding and a February 2003 Commission decision resolving hearing requests regarding that application, *see Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19 (2003); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 333-34 (2002), in a May 29, 2003 submission that is not part of the evidentiary record of this proceeding, the Staff advised us that in a May 27, 2003 order it had approved the operating license transfers, albeit conditioned on, among other things, action by the bankruptcy court in the pending proceeding that does not make material changes to the circumstances described in the PG&E application regarding the creation of Gen. *See* 68 Fed. Reg. 33,208, 33,209 (June 3, 2003). Certainly, such a showing would be relevant to effectuating any subsequent ISFSI license transfer as well.

evidentiary hearing on, the lack of financial qualifications on the part of PG&E during its bankruptcy. We examine each below.

As was noted previously, both Intervenor SLOMFP and the IGP assert that while in bankruptcy, PG&E's prospects of electric rate recovery are uncertain, which manifests itself in two ways. *See* IGP Summary at 23, SLOMFP Response at 3. First, PG&E is asserted to have changed its strategy for paying ISFSI construction costs and operating costs from strictly relying on rate recovery to a combination of rate recovery and electric operating revenues, thus demonstrating its uncertainty about its ability to fund these costs. *See* IGP Summary at 25-27. Also, there is a statement by CPUC analyst Burns asserting that, because the ISFSI-licensee successor to PG&E may not be regulated by the CPUC, there is a substantial likelihood the CPUC will not permit current rate recovery to be used to defray construction expenditures. *See id.* at 27-28 & n.30. Further, there are questions raised about the lack of a detailed PG&E showing of operating revenues, in lieu of which PG&E is asserted to have relied only upon broad generalizations that do not permit a detailed examination of whether there are available operating revenues to pay for construction or upon post-discovery information that could not be contested by IGP experts. *See id.* at 28 & n.31, 39. Finally, as to decommissioning costs, concerns have been expressed about PG&E's failure to make a $10 million CPUC-authorized and collected payment to its decommissioning trust fund from rates, the Staff's reminder that its ISFSI decommissioning funds cannot come from DCPP decommissioning trust funds, and the uncertainty about whether PG&E can transfer its beneficial interest in its decommissioning trust through the bankruptcy court. *See id.* at 34-36.

As these concerns recognize, PG&E cites two basic funding sources to cover its potential costs during its bankruptcy proceeding[15] — rate recovery and operating revenues.[16] In each instance, however, we are unable to conclude that the

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[15] Although PG&E has not provided a specific cost figure for its bankruptcy period, which seemingly would encompass a relatively limited period of time compared to the overall period of ISFSI construction and operation, as was noted previously, in its application and a June 7, 2003 supplement PG&E provided estimates (in 2001 dollars) of total ISFSI construction costs, ISFSI operating costs, and costs associated with decommissioning of the ISFSI after the removal of spent fuel and other high-level and reactor-related radiological waste as follows: costs of construction/support equipment — $63 million (present-2025); operating costs, including 50 storage casks — $69 million (present-2025); operating costs, including 88 storage casks — $107 million (2026-2040); decommissioning costs, excluding financial contingencies — $12.5 million. *See* PG&E Summary at 8. For purposes of the contention before us, those figures are not in dispute. *See* LBP-02-23, 56 NRC at 445-46 (rejecting SLOMFP contention TC-5 challenging PG&E ISFSI construction and operation cost estimates).

[16] As the Board noted in admitting SLOMFP contention TC-2, as part of the basis for the contention Intervenor SLOMFP quoted from PG&E's 2001 Annual Report and asserted that PG&E's financial qualifications were in question due to its limited access to credit markets. *See* LBP-02-23, 56 NRC at

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challenges posed by the IGP and SLOMFP either establish the need for further adjudicatory proceedings or are sufficient to counter a PG&E financial assurance showing.

As to rate making, it is apparent that PG&E has invoked the rate-making process and expects to pay the costs associated with the ISFSI as normal operating expenses, covered by electric operating revenues, and is already doing so. As PG&E notes, pursuant to a CPUC April 4, 2002 order returning PG&E's retained generation to the cost-of-service rate base, pending resolution of the bankruptcy proceeding, PG&E currently is entitled to recovery of prudent Diablo Canyon expenses through traditional cost-of-service rates. And to that end, costs related to the development and construction of the ISFSI for 2002 and 2003 have been estimated in PG&E's 2003 General Rate Case currently pending before the CPUC to be less than $6.0 million and $8.0 million, respectively. Additionally, annual ISFSI expenses are projected to be approximately $8.9 million in 2004, and $20.9 million in 2005 when construction and initial cask procurement would begin, and costs of construction and loading in 2006 projected to be less than $12.0 million (in 2002 dollars). Thereafter, annual costs associated with equipment, cask procurement, operations and maintenance fees, and other fixed expenses in years subsequent to 2006 range (by year) from $1.0 million to $6.0 million (all in 2002 dollars). *See* PG&E Summary at 11. Additionally, decommissioning contributions are being addressed in PG&E's ongoing 2002 Nuclear Decommissioning Cost Triennial Proceeding, a rate proceeding for which PG&E has provided a revised site-specific decommissioning cost estimate that again includes the DCPP ISFSI. *See id.* at 22. In each instance, PG&E indicates, it has expressed to the CPUC its belief these costs associated with the ISFSI represent reasonable and prudent DCPP expenses and, accordingly, it expects full recovery through rates. *See id.* at 10, 22.

Of course, as IGP witness Burns suggests, the possibility always exists that a utility regulatory commission prudence review could result in a disallowance of all or part of those costs. Given, however, the Commission's general premise that reasonable and prudent costs associated with safe facility operation will be recovered through the ratemaking process, *see Seabrook,* ALAB-895, 28 NRC at 13, and PG&E's placement before the CPUC of its accounting and other bases for treating its costs as rate recoverable,[17] *see* PG&E Summary at 13, 22, we

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442. PG&E now declares, however, that it is not borrowing and will not need to borrow to pay ISFSI expenses given that its operating revenues are more than sufficient to provide cash flow for ISFSI expenses. *See* PG&E Summary at 10.

[17] In this regard, PG&E indicates that to the degree this is an argument that construction-work-in-progress (CWIP) regulations applicable to capital costs could apply to the ISFSI to preclude a finding of financial qualifications, for rate-recovery purposes in the present CPUC rate-regulated

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do not consider this an adequate basis upon which to require further evidentiary proceedings or for a finding that PG&E lacks the requisite financial assurance.

As PG&E notes, however, there is the associated question of whether there are sufficient operating revenues to cover the cash flow associated with these costs or a CPUC rate disallowance during bankruptcy.[18] PG&E declares it currently is paying the costs associated with the ISFSI out of normal operating revenues and expects to continue to do so, as demonstrated by its most recent Form 10-K/A, dated March 5, 2003, which shows for PG&E capital expenditures of over $1.5 billion, operating revenues of over $10 billion, and earnings available for common stock of over $1.7 billion, for the 12-month period ending December 31, 2002. *See id.* at 10-11. Also, according to PG&E, it currently has substantial cash on hand — $3 billion — that would be sufficient to cover ongoing costs associated with development, construction, operation, and decommissioning of the Diablo Canyon ISFSI during the pendency of the bankruptcy proceeding (although it does not expect to decommission the ISFSI during the pendency of the bankruptcy proceeding). *See id.* at 11-12. While acknowledging the majority of this cash currently is earmarked to repay creditors, PG&E maintains some portion of this cash would be available, with the approval of the bankruptcy court, to pay costs necessary to preserve and maintain the estate. *See id.* at 12.

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environment, PG&E is not accounting for incurred Diablo Canyon ISFSI expenses as capital costs that would be subject to CWIP regulations. Rather, it is treating those costs as operating expenses, currently recoverable through electric rates. It also recognizes that the CPUC, in PG&E's ongoing 2003 General Rate Case, can review PG&E's accounting treatment with respect to the ISFSI expenses and provide for timing of rate recovery consistent with a different accounting treatment. *See* PG&E Summary at 13. Nonetheless, even assuming some portion of ISFSI expenses is eventually treated as capital costs and recovery is deferred accordingly, as is discussed below, the record now before us indicates PG&E will have sufficient cash flow (based on assets and operating revenues) to pay costs associated with the ISFSI.

[18] In this regard, we note that relying upon PG&E's assertions about timing, IGP witness Burns declares that given the time it will take to complete ISFSI construction, ISFSI operating costs are essentially post-bankruptcy costs. *See* Burns Affidavit at A-4. As we have noted, however, post-bankruptcy matters are not within the parameters of SLOMFP contention TC-2 as admitted.

Concerns about timing also are at the heart of the IGP claim that the Board's ruling on the scope of the contention is inconsistent with the asserted Part 72 requirement to make a financial assurance finding that covers the entire 20-year life of a Part 72 license. Putting aside the fact that Part 72 does not incorporate even the 5-year projection that is required under 10 C.F.R. Part 50 for a reactor licensee, *compare* 10 C.F.R. § 50.33(f)(2) *with id.* § 72.22(e), we think that our determination here is consistent with predictive nature of that finding, *see North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219-20 (1999) (" '[s]peculation' of some sort is unavoidable when the issue at stake concerns predictive judgments about an applicant's future financial capabilities"), as we rely on the CPUC rate-making process or the license transfer proceeding as the basis for such reasonable assurance during the post-bankruptcy period that is likely to occupy most of the 20 years of ISFSI operation.

With respect to operating revenues, although it is suggested that a PG&E change to rely on a combination of rate recovery and electric operating revenues demonstrates an impermissible uncertainty about its ability to fund these costs, we find this argument wholly inadequate as a basis for either an additional evidentiary hearing or a finding that PG&E lacks financial assurance. Somewhat better conceived, although ultimately unsuccessful, is the additional SLOMFP and IGP argument that ''the devil is in the details'' relative to these figures to the degree that, while large, these numbers do not provide the kind of enumerated view of the day-to-day details of PG&E cash flow necessary to establish whether operating revenue and cash on hand really are available for funding ISFSI costs. As the Commission has noted, while there may be instances when issues involving expert or other testimony on key questions require evidentiary hearing followup and dialogue to be answered ''with sufficient accuracy,'' many issues, particularly those involving competing technical or expert presentations, frequently are amenable to resolution by a licensing board based on its evaluation of the thoroughness, sophistication, accuracy, and persuasiveness of the parties' submissions. *See Shearon Harris,* CLI-01-11, 53 NRC at 386. In this instance, given the technical sophistication of the CPUC (upon which SLOMFP relies for its claims) and its continued, detailed oversight of PG&E's financial situation, we find its inability to provide us with any specific, concrete concern about PG&E's current cash flow vis à vis its proposed ISFSI insufficient to merit convening a further evidentiary proceeding or to provide a basis for finding, on the record before us, that PG&E lacks the requisite financial qualifications relative to ISFSI costs during bankruptcy.

As to decommissioning costs, the concerns expressed about PG&E's failure to make a $10 million CPUC-authorized and collected payment to its decommissioning trust fund from rates and the Staff's reminder that its ISFSI decommissioning funds cannot come from DCPP decommissioning trust funds likewise are inadequate to trigger further evidentiary proceedings or to merit a finding that PG&E lacks financial assurance relative to its Part 72 application. As PG&E makes clear, the former issue is being dealt with in the CPUC's ongoing Nuclear Decommissioning Cost Triennial Proceeding, while the latter has been addressed by PG&E in clarifying that, while ISFSI decommissioning funds are part of the overall decommissioning collections and are maintained in DCPP decommissioning trust funds, as an accounting matter the ISFSI decommissioning funds are segregated from DCPP decommissioning funds. *See* PG&E Response at 16-17. Nor is the purported uncertainty about a decommissioning fund transfer a relevant matter here since it is a post-bankruptcy matter that can be dealt with in the context of any license transfer proceeding.

Finally, on the matter of the May 15, 2003 motion requesting that the Board take official notice of a newspaper article, the newspaper article information in question does not meet the definition of matters that may be officially noticed in

that it is not '' 'a matter beyond reasonable controversy' '' and is not '' 'capable of immediate and accurate determination by resort to easily accessible sources of indisputable accuracy.' '' *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 75 (1991) (quoting *Government of Virgin Islands v. Gereau,* 523 F.2d 140, 147 (3d Cir. 1975), *cert. denied,* 424 U.S. 917 (1976) (citations omitted)). Moreover, it is not apparent the information at issue has any real connection to the matter before us, given the information has no relevance to the ability of PG&E to fund ISFSI construction, operation, and decommissioning during the time it is in a protected bankruptcy status.

III. CONCLUSION

Pursuant to 10 C.F.R. § 2.1115, based on the record before us, we conclude SLOMFP, the IGP, and the CEC have failed to demonstrate there is any genuine and substantial dispute of fact or law that only can be resolved with sufficient accuracy in an evidentiary hearing with respect to the SLOMFP contention TC-2 challenge to PG&E's December 2001 application to construct and operate an ISFSI at its DCPP. At the same time, we find that, notwithstanding its current bankruptcy status, under the circumstances here PG&E has met its burden to establish that it has the financial qualifications to carry out the activities outlined in its pending Part 72 application by virtue of its ability to cover ISFSI-related costs and expenses through rate recovery, cash on hand, or its substantial operating revenues.

We thus having resolved the only outstanding matter at issue in this cause, we terminate this proceeding.

For the foregoing reasons, it is, this fifth day of August 2003, ORDERED that:

1. The May 15, 2003 IGP/CEC motion to take official notice under 10 C.F.R. § 2.743(i)(1) is *denied.*

2. With respect to SLOMFP contention TC-2, PG&E's Financial Qualifications Not Demonstrated, in accordance with 10 C.F.R. § 2.1115(b), because (a) there is no genuine and substantial dispute of fact or law that only can be resolved with sufficient accuracy by the introduction of evidence in an evidentiary hearing; and (b) PG&E has met its burden to demonstrate in accordance with 10 C.F.R. § 72.22(e) that it has the financial qualifications to carry out the activities outlined in its pending Part 72 application; and

3. There being no remaining disputed issues of fact or law requiring resolution in an adjudicatory hearing and all issues in this proceeding having been resolved in favor of granting the December 2001 PG&E Part 72 license application, (a) the Staff is *authorized* to issue the license amendment requested by PG&E immediately upon the completion of all NRC Staff license review activities and

the requisite findings that all requirements necessary to issue the requested Part 72 ISFSI license have been met, *see* 10 C.F.R. § 2.764(a); and (b) pursuant to section 2.1115(a)(2), this proceeding is *dismissed.*

In accordance with 10 C.F.R. § 2.760, this decision will constitute the final decision of the Commission forty (40) days from the date of issuance, or on *Monday, September 15, 2003,* unless a petition for review is filed in accordance with 10 C.F.R. § 2.786, or the Commission directs otherwise. Within fifteen (15) days after service of this decision, any party may file a petition for review with the Commission on the grounds specified in 10 C.F.R. § 2.786(b)(4). The filing of a petition for review is mandatory for a party to have exhausted its administrative remedies before seeking judicial review. Within ten (10) days after service of a petition for review, any party to the proceeding may file an answer supporting or opposing Commission review. The petition for review and any answers shall conform to the requirements of 10 C.F.R. § 2.786(b)(2)-(3).

THE ATOMIC SAFETY AND
LICENSING BOARD[19]

G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE

Dr. Jerry R. Kline
ADMINISTRATIVE JUDGE

Dr. Peter S. Lam
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 5, 2003

[19] Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Applicant PG&E; (2) Intervenors SLOMFP; (3) SLOC, CPUC, CEC, ABCSD, and the Diablo Canyon Independent Safety Committee; and (4) the Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges:

Ann Marshall Young, Chair
Dr. Richard F. Cole
Dr. Thomas S. Elleman

In the Matter of **Docket No. 50-336-OLA-2**
(ASLBP No. 03-808-02-OLA)

DOMINION NUCLEAR CONNECTICUT, INC.
(Millstone Nuclear Power Station,
Unit 2) **August 18, 2003**

In this license amendment proceeding under 10 C.F.R. Part 54, the Licensing Board finds that the one contention submitted by Petitioner Connecticut Coalition Against Millstone (CCAM) is not sufficiently supported to be admissible under relevant rules and law, and dismisses the contention and terminates the proceeding.

RULES OF PRACTICE: CONTENTIONS

To intervene in an NRC proceeding, a petitioner must, in addition to demonstrating standing, submit at least one contention meeting the requirements of 10 C.F.R. § 2.714(b), (d); the failure of a contention to comply with any one of these requirements is grounds for dismissing the contention; and, pursuant to section 2.714(b)(1), the failure of a petitioner to submit at least one admissible contention is grounds for dismissing the petition. *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333 (1999); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248 (1996); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991).

RULES OF PRACTICE: CONTENTIONS

Because in prior years ''licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation,'' the Commission has made the contention rule ''strict by design,'' *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001) (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999)), and thus a petitioner must do more than merely make unsupported allegations in proposed contentions.

RULES OF PRACTICE: CONTENTIONS

Petitioners must, in order to satisfy the requirements of the contention rule, specifically state in their contentions the issues they wish to raise; provide support in the form of expert opinion, document(s), and/or a fact-based argument; and provide reasonably specific and understandable explanation of particular safety or legal reasons to support its contentions. *Millstone,* CLI-01-24, 54 NRC at 359-60.

RULES OF PRACTICE: CONTENTIONS

The contention rule does not require a specific allegation or citation of a regulatory violation, but a petitioner must, under 10 C.F.R. § 2.714(b)(2)(iii), either include references to the specific portion of the application the petitioner disputes and the supporting reasons for each dispute, or, if a contention alleges that an application fails to contain information on a relevant matter as required by law, identify each failure and the supporting reasons for the petitioner's belief. *Millstone,* CLI-01-24, 54 NRC at 361-62.

RULES OF PRACTICE: CONTENTIONS

Petitioners must do more than submit ''bald or conclusory allegation[s]'' of a dispute with the applicant; they must read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant's position and the petitioner's opposing view, and explain why they have a disagreement with the applicant. *Millstone,* CLI-01-24, 54 NRC at 358; Statement of Considerations (SOC) for Final 1989 Amendments to Contention Rule, 54 Fed. Reg. 33,168, 33,170-71 (Aug. 11, 1989). A contention will be dismissed if a petitioner sets forth no facts or expert opinion on which it intends to rely to prove its contention, or if the contention fails to establish that a genuine dispute exists between the intervenor and the applicant. 54 Fed. Reg. at 33,171.

RULES OF PRACTICE: CONTENTIONS

A contention's proponent, not the licensing board, is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement of the rule. *Statement of Policy on Conduct of Adjudicatory Proceedings,* CLI-98-12, 48 NRC 18, 22 (1998).

RULES OF PRACTICE: CONTENTIONS

Section 2.714(b)(2)(iii) requires, for issues arising under NEPA, that contentions be based on the applicant's environmental report; petitioners can amend such contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's document.

RULES OF PRACTICE: CONTENTIONS

Section 2.714(d)(2)(ii) requires that a licensing board refuse to admit a contention if, assuming the contention were proven, it would be of no consequence in the proceeding because it would not entitle the petitioner to specific relief.

RULES OF PRACTICE: CONTENTIONS

Petitioner's contention was found to be inadmissible because it did not present any specific issue, supported by a basis stated with reasonable specificity to show that a genuine dispute exists with regard to whether the application at issue meets the requirements of 10 C.F.R. § 50.67(b)(2), or whether the proposed changes in technical specifications are appropriate in light of the requirements of either section 50.67 or the rule on technical specifications, section 50.36; and because it did not, as required under section 2.714, specifically or directly challenge or controvert any particular part of the application with regard to any legal or factual issue that would make a difference in the outcome of this proceeding, such that it could be entitled to any relief in the proceeding.

RULES OF PRACTICE: CONTENTIONS

Although certain self-evident and ''commonsense'' circumstances that indicated an increased potential for a release of radioactivity that might have offsite consequences were found sufficient by the Board in LBP-03-3, 57 NRC 45 (2003), to show standing, under the principle that even minor radiological exposures resulting from a proposed licensee activity can be enough to create the

requisite injury in fact, these circumstances were not found to meet the more stringent requirements to support an admissible contention. Mere allegation that increased offsite releases or probability of consequences will be significant was found inadequate to demonstrate with sufficient specificity a genuine issue of law or fact, when Petitioner did not specifically or directly challenge whether Applicant met relevant rule requirements, state with specificity how any increases would occur, or raise any specific challenges to the Applicant's dose calculations.

MEMORANDUM AND ORDER
(Ruling on Petitioner's Supplemented Petition and Contention)

This proceeding involves a September 26, 2002, application of Dominion Nuclear Connecticut, Inc. (Dominion), to amend the operating license for Millstone Power Station, Unit No. 2, by changing certain technical specifications. The proposed changes are based upon reanalysis of the limiting design basis Fuel Handling Accident using an Alternative Source Term in accordance with 10 C.F.R. § 50.67 and NRC Regulatory Guide 1.183. This application was among those included in a November 2002 NRC ''Biweekly Notice'' regarding ''Applications and Amendments to Facility Operating Licenses Involving No Significant Hazards Considerations.'' 67 Fed. Reg. 68,728, 68,731 (Nov. 12, 2002). On December 12, 2002, in response to this notice and Dominion's application, the Connecticut Coalition Against Millstone (CCAM) and the STAR Foundation, Inc. (STAR) filed an ''Amended Petition To Intervene and Request for Hearing.'' In LBP-03-3, 57 NRC 45 (2003), this Licensing Board held that Petitioner CCAM had standing to participate in this proceeding but that Petitioner STAR lacked standing, and on June 5, 2003, the Licensing Board heard oral argument on Petitioner CCAM's March 10, 2003, Supplemented Petition and Contention. For the reasons stated herein, we conclude that Petitioner CCAM's contention is not sufficiently supported to be admissible under relevant rules and law, and therefore dismiss it and terminate this proceeding.

I. BACKGROUND

Dominion in its license amendment application requests approval of its ''reanalysis of the Millstone Unit No. 2 limiting design basis Fuel Handling Accidents using a selective implementation of the Alternative Source Term (AST) methodology in accordance with 10 C.F.R. 50.67 and Regulatory Guide 1.183,'' and approval of certain changes to the Technical Specifications (TSs) consistent with that reanalysis. Dominion License Amendment Application (Letter, J. Alan Price to U.S. Nuclear Regulatory Comm'n Document Control Desk, B18763,

''Millstone Unit No. 2, License Basis Document Change Request (LBDCR) 2-18-02, Selective Implementation of the Alternative Source Term — Fuel Handling Accident Analyses'' (Sept. 26, 2002)), at 1 [hereinafter LAA]. Specifically, Dominion requests amendments to TS 3.3.3.1, ''Monitoring Instrumentation, Radiation Monitoring''; TS 3.3.4, ''Instrumentation, Containment Purge Valve Isolation Signal''; TS 3.7.6.1, ''Plant Systems, Control Room Emergency Ventilation System''; TS 3.9.4, ''Refueling Operations, Containment Penetrations''; TS 3.9.8.1, ''Refueling Operations, Shutdown Cooling and Coolant Circulation — High Water Level''; TS 3.9.8.2, ''Refueling Operations, Shutdown Cooling and Coolant Circulation — Low Water Level''; and TS 3.9.15, ''Refueling Operations, Storage Pool Area Ventilation System.'' *Id.*

As noted by Staff Counsel, the LAA is based on a 1999 amendment of NRC regulations, permitting nuclear power plant licensees ''to voluntarily replace the traditional source term[1] used in design basis accident analyses with alternative source terms.'' Final Rule, ''Use of Alternative Source Terms at Operating Reactors,'' 64 Fed. Reg. 71,990 (Dec. 23, 1999); *see* NRC Staff's Response to Amended Petition To Intervene and Request for Hearing Filed by [CCAM] and [STAR] (Jan. 2, 2003), at 2-3. The new ''Alternative Source Term'' rule, codified at 10 C.F.R. § 50.67, permits utilities with nuclear power plant operating licenses to replace the prior, 1962-era source term in their licenses with a revised one. 64 Fed. Reg. at 71,990-92. Under the new rule, at 10 C.F.R. § 50.67(b), certain dose limits — specifically, those to (1) individuals located at any point on the boundary of the exclusion area for any 2-hour period following the onset of the postulated fission product release, (2) individuals located at any point on the outer boundary of the low population zone exposed to the radioactive cloud resulting from the release, and (3) persons working in the control room under accident conditions — are stated in terms of single total effective dose equivalents (TEDEs). This approach replaces that used in the original design basis for operating reactors, the terms of which provided for two different doses, one to the whole body and the other to the thyroid. *See* 64 Fed. Reg. at 71,992-93; *see also* 10 C.F.R. § 100.3 (2003), defining ''Exclusion area'' and ''Low population zone.''

This Licensing Board has ruled, as indicated above, that Petitioner CCAM established standing to participate in this proceeding, but found that Petitioner STAR did not establish standing and dismissed it from the proceeding. LBP-03-3, 57 NRC at 60-63. On March 10, 2003, CCAM filed its one contention in this proceeding. Petitioner, [CCAM], Supplemented Petition and Contention

[1] Source term refers to the fission product release from the reactor core into containment resulting from a design basis accident. It is ''characterized by the composition and magnitude of the radioactive material, the chemical and physical properties of the material, and the timing of the release from the reactor core. The accident source term is used to evaluate the potential radiological consequences of design-basis accidents.'' 64 Fed. Reg. at 71,991.

(March 10, 2003) [hereinafter Contention]. In its contention, CCAM challenges Dominion's proposed changes to TSs that would modify requirements regarding containment closure and spent fuel pool area ventilation during movement of irradiated fuel assemblies in containment and in the spent fuel pool area, allow containment penetrations including the equipment door and personnel airlock door to be left open under administrative control, and eliminate requirements for automatic closure of containment purge during Mode 6 fuel movement, as well as the deletion of TSs associated with storage pool area ventilation. Contention at 1-2.

Dominion and the NRC Staff filed answers to CCAM's contention on March 31, 2003. Answer of Dominion Nuclear Connecticut, Inc. to [CCAM] Supplemented Petition and Contention (March 31, 2003) [hereinafter Dominion Answer]; NRC Staff's Answer Opposing Contention Filed by [CCAM] (March 31, 2003) [hereinafter Staff Answer]. Thereafter, as indicated above, on June 5, 2003, the Licensing Board heard oral argument on Petitoner's contention. Finally, on June 20, 2003, Dominion filed an Affidavit of William J. Eakin and certain dose calculations as discussed in oral argument, which we address below. *See* Letter from David A. Repka, Counsel for Dominion Nuclear Connecticut, Inc., to Licensing Board (June 20, 2003).

II. ANALYSIS

A. Standards for Admissibility of Contentions

To intervene in an NRC proceeding, a Petitioner must, in addition to demonstrating standing, submit at least one contention meeting the requirements of 10 C.F.R. § 2.714(b), (d). *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333 (1999); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248 (1996). As we have previously noted, the standards that licensing boards must apply in ruling on the admissibility of contentions, and that we apply in ruling on CCAM's contention, are defined at 10 C.F.R. § 2.714(b), (d). The failure of a contention to comply with any one of these requirements is grounds for dismissing the contention, *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991), and, pursuant to section 2.714(b)(1), the failure of a petitioner to submit at least one admissible contention is grounds for dismissing the petition.

The Commission, in an earlier case involving CCAM and Dominion, has stated that the ''contention rule is strict by design,'' having been ''toughened . . . in 1989 because in prior years 'licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.' '' *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2

and 3), CLI-01-24, 54 NRC 349, 358 (2001) (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999)).

Thus, a petitioner must do more than merely make unsupported allegations. Contentions must *specifically* state the issues a petitioner wishes to raise and, in addition to providing support in the form of expert opinion, document(s), and/or a fact-based argument, a petitioner must provide reasonably specific and understandable *explanation* and *reasons* to support its contentions. If a petitioner in a contention ''fail[s] to offer any specific explanation, factual or legal, for why the consequences [the petitioner fears] will occur,'' the requirements of the contention rule are not satisfied. *Millstone,* CLI-01-24, 54 NRC at 359. ''An admissible contention must *explain, with specificity,* particular safety or legal reasons requiring rejection of the contested [licensing action].'' *Id.* at 359-60 (emphasis added). The contention rule does not require ''a specific allegation or citation of a regulatory violation,'' *id.* at 361, but a petitioner is obliged, under 10 C.F.R. § 2.714(b)(2)(iii), either to ''include references to the specific portions of the application . . . that the petitioner disputes and the supporting *reasons* for each dispute,'' *id.* (emphasis added), or, if a contention alleges that an application ''fails to contain information on a relevant matter as required by law,'' *id.,* to identify ''each failure and the supporting *reasons* for the petitioner's belief.'' *Id.* (emphasis added); *see Millstone,* 54 NRC at 361-62.

The Statement of Considerations (SOC) for the final 1989 rule amendments, 54 Fed. Reg. 33,168 (Aug. 11, 1989), also provides elucidation in interpreting and applying the contention requirements, guidance that is entitled to ''special weight'' under the authority of *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC 275, 290-91 (1988), *review declined,* CLI-88-11, 28 NRC 603 (1988). In the SOC the Commission stated that a ''contention will be dismissed if [a petitioner] sets forth no facts or expert opinion on which it intends to rely to prove its contention, or if the contention fails to establish that a genuine dispute exists between the intervenor and the applicant,'' and that petitioners must do more than submit ''bald or conclusory allegation[s]'' of a dispute with the applicant. 54 Fed. Reg. at 33,171. They must ''read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant's position and the petitioner's opposing view,'' *Millstone,* CLI-01-24, 54 NRC at 358 (*citing* 54 Fed. Reg. at 33,170), and ''explain[ ] why they have a disagreement with [the applicant].'' 54 Fed. Reg. at 33,171.

In addition, according to the Commission's 1998 *Statement of Policy on Conduct of Adjudicatory Proceedings,* a ''contention's proponent, not the licensing board, is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement'' of the rule. CLI-98-12, 48 NRC 18, 22 (1998).

To summarize, a contention must:

(A) under section 2.714(b)(2), consist of a *specific* statement of the issue of law or fact the petitioner wishes to raise or controvert; and

(B) under subsection 2.714(b)(2)(i), be supported by a brief *explanation* of the factual and/or legal basis or bases of the contention, which goes beyond mere allegation and speculation, is *not* open-ended, ill-defined, vague, or unparticularized, and *is* stated with reasonable specificity; and

(C) under subsection 2.714(b)(2)(ii), include a statement of the alleged facts or expert opinion (or both) that support the contention and on which the petitioner intends to rely to prove its case at a hearing, which must also be stated with reasonable specificity; and

(D) also under subsection 2.714(b)(2)(ii), include references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish the facts it alleges and/or the expert opinion it offers, which must also be stated with reasonable specificity and, at a minimum, consist of a fact-based argument sufficient to demonstrate that an inquiry in depth is appropriate, and illustrate that the petitioner has examined the publicly available documentary material pertaining to the facility(ies) in question with sufficient care to uncover any information that could serve as a foundation for a specific contention; and

(E) under subsection 2.714(b)(2)(iii), provide sufficient information to show that a *genuine dispute* exists with the applicant on a *material* issue of law or fact (i.e., a dispute that actually, specifically, and directly challenges and controverts the application, with regard to a legal or factual issue, the resolution of which ''would make a difference in the outcome of the licensing proceeding''), 54 Fed. Reg. at 33,172), which includes either:

(1) *references to the specific portions of the application* (including the applicant's environmental report and safety report) that the petitioner disputes *and the supporting reasons for each dispute,* or

(2) if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the *identification of each failure and the supporting reasons for the petitioner's belief; . . . .*

See Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), LBP-02-4, 55 NRC 49, 67-68 (2002); *see also* LBP-03-3, 57 NRC at 64.

Also, as indicated in the text of subsection 2.714(b)(2)(iii), for issues arising under NEPA, contentions must be based on the applicant's environmental report, and the petitioner can amend such contentions or file new contentions ''if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that

differ significantly from the data or conclusions in the applicant's document.'' And finally, under subsection 2.714(d)(2)(ii), in ruling on a contention a licensing board must refuse to admit a contention if, assuming the contention were proven, it would be of no consequence in the proceeding because it would not entitle the petitioner to specific relief.

B. CCAM Contention

CCAM in its one contention states as follows:

> The amendment involves the potential of significant increase in the amounts of radiological effluents that may be released offsite and thus the amendment involves an adverse impact on the public health and safety.

Contention at 3. Another part of the contention, challenging the Staff's ''No Significant Hazards Consideration'' determination, was effectively withdrawn at oral argument. Tr. 30, 97-99.

As basis for its contention, CCAM notes that the proposed changes involved in the LAA ''modify certain containment closure and spent fuel pool ventilation requirements during fuel movement operations that would allow doors and other penetrations to remain open under administrative control and eliminate requirements for automatic closure of openings,'' *citing* 67 Fed. Reg. 68,728, 68,731 (Nov. 12, 2002), and asserts that,

> [i]f in such fuel movement operations, containment penetrations are left open, rather than having automatic and other closing functions operable or in effect, in the event of an accident and in routine operations there is a greater likelihood of a release of radioactivity that might have an impact on those who live nearby the site.

Contention at 3-4. Further, CCAM asserts that, ''[i]f a fuel handling accident occurs during refueling, and the containment door is left open, more radioactivity will escape the containment than if the doors were closed''; that a ''fuel handling accident involving spent fuel entails an increased potential for offsite consequences''; and that ''[t]herefore, the proposed changes do not meet the criteria for categorical exclusion set forth in 10 C.F.R § 51.22(c)(9). . . .'' *Id.* at 4.

In its Statement of Facts, CCAM gives various examples of proposed changes to the TSs that ''modify requirements regarding containment closure and spent fuel area ventilation during movement of irradiated fuel assemblies in containment and in the spent fuel pool area.'' *Id.* These include changes: to TSs 3.3.3.1 and 3.3.4 such that ''the revised Fuel Handling Accident ('FHA') Inside Containment Analysis no longer assumes automatic closure of the containment purge valve during a FHA inside containment involving increasing airborne radioactivity

levels'' but rather ''assumes the containment purge valve remains open''; to TS 3.9.4 such that ''containment penetrations need not be closed if closure would represent a significant radiological hazard to the personnel involved''; and to TS 3.3.3.1 that would eliminate the spent fuel storage area ventilation system automatic isolation signal. *Id.* at 4-5. Asserting that the modifications ''substitute yet unsubmitted and unreviewed administrative controls for presently credited automatic penetration closure and in the spent fuel pool area,'' CCAM says that, ''[a]t the same time, the modifications obviate existing requirements to prevent leakage of radioactive effluent from containment to the environment should radiation levels be deemed too hazardous for personnel.'' *Id.* at 5 (*citing* LAA, Attach. 2 at 8). According to CCAM, such leakage ''will be channeled to the environment without mitigation as required under existing Technical Specifications.'' Contention at 4-5.

Moreover, CCAM asserts as fact, ''[a] fuel handling accident involving spent fuel entails an increased potential for offsite consequences'' that can be ''severe and indeed catastrophic.'' Based on these assertions of fact, CCAM argues that the proposed amendment ''involves potential significant increase in the amounts of radiological effluents that may be released offsite'' and therefore involves an ''adverse impact on the public health and safety.'' *Id.* at 5.

The documents and sources on which CCAM relies are the LAA, including attachments and references; LBP-03-3; an otherwise-unidentified ''October 2000 report prepared by Sandia National Laboratories for the [NRC] on the potential consequences of a spent fuel pool accident''; and ''[s]uch additional sources and documents as are a matter of public record and as may be disclosed in discovery in these proceedings.'' *Id.*

CCAM disputes the Applicant's assertions that the proposed changes are ''safe,'' ''meet the criteria for categorical exclusion,'' and ''do not involve an adverse impact on public health and safety,'' citing a Dominion cover letter dated September 26, 2002, at 1-4, and documents referenced therein. Contention at 7. According to CCAM, the proposed changes do not protect the public health and safety and hence are not safe, and ''[i]n the event of a FHA, with a containment penetration open, if the level of airborne radiation is too severe to enable personnel to carry out the substitute administrative controls to prevent venting to the environment, the impact to the surrounding area will be adverse.'' *Id.* In addition, CCAM asserts, the proposed changes ''compromise 10 C.F.R. § 50.92(c) criteria,'' and involve ''a significant increase in the probability of consequences of an accident previously evaluated.'' *Id.* (*citing* LAA, Attach. 3 at 1-4). Indeed, CCAM states, ''an increased risk of increase in dose at the site boundary or to control room personnel is acknowledged by the Licensee.'' *Id.* (*citing* LAA, Attach. 3 at 2).

CCAM relies on this Board's statement in LBP-03-3 that ''if a fuel handling accident occurs during refueling, and the containment door is left open, common

sense indicates that more radioactivity is going to escape the containment than if the doors were closed.'' Contention at 7; *see* LBP-03-3, 57 NRC at 61. CCAM asserts that the proposed changes involve a ''significant reduction in the margin of safety.'' Comparing current provisions for automatic closure during an FHA to a situation in which the radiation levels become ''too severe — a not at all unlikely event,'' CCAM asserts that the latter situation would ''automatically render[ ] nugatory'' the proposed administrative controls under the LAA such that ''the Licensee will not be faulted for not closing the penetration during the FHA.'' *Id.* at 8. In addition, CCAM claims, the proposed changes ''increase the risk of significant increase in the amount of radiation that may be released off-site,'' entail ''risk of a significant increase in individual or cumulative occupational radiation exposure such as at the containment penetrations where personnel would be called upon to manually close doors which had theretofore been required to close automatically,'' and would permit the Licensee ''to make its own judgment call as to what degree of severity to subject its personnel to under serious accident conditions to carry out what had theretofore been required to be performed automatically and mechanically.'' *Id.*

CCAM asserts that through such mechanisms as doors that would be permitted to be open, the proposed changes ''subject the public to a greater risk of exposure to and adverse effect from radiological emissions which escape to the environment,'' and argues that ''the application is replete with references to as yet unsubmitted administrative controls, the absence of which precludes meaningful analysis of the merits of the application. *Id.* at 9 (*citing* LAA, Attach. 1 at 18, 20; LAA, Attach. 2 at 3, 6, 7, 8, 9, 14, 15).

Finally, CCAM argues in its written submission that its contention, ''if proven, would be of consequence in the proceeding because it would entitle the petitioner to specific relief'' in the form of denying the LAA, or, again citing this Board in LBP-03-3, disallowing the proposal to leave open penetrations. *Id.*

C. Dominion Answer

Dominion argues that CCAM's proposed contention ''lacks a basis sufficient to demonstrate a genuine dispute,'' that it ''would not entitle CCAM to any relief in this proceeding,'' and that, ''[a]ccordingly, the proposed contention is not admissible and the request for hearing should be denied.'' Dominion Answer at 1. It argues further, relying on the principle that an ''intervenor must do more than submit 'bald or conclusory allegation[s]' of a dispute,'' that he or she must ''allege with particularity (1) that an applicant is not complying with a specified regulation, or (2) the existence and detail of a substantial safety issue on which the regulations are silent''; that ''[i]n the absence of an allegation of a 'regulatory gap,' the failure to allege a violation of the regulations or an attempt to advocate stricter requirements than those imposed by NRC regulations will result

in a rejection of the contention''; and that a licensing board ''is not to accept uncritically the assertion that a document or other factual information or an expert opinion supplies the basis for a contention.'' *Id.* at 6-7 (citing *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001) (*citing* 54 Fed. Reg. at 33,170-71); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90, *rev'd in part on other grounds,* CLI-96-7, 43 NRC 235 (1996)).

With regard to its reanalysis underlying its LAA, Dominion states that it applies only to Millstone ''design basis fuel handling accidents postulated during fuel movements in the containment building and in the spent fuel pool building,'' done ''only while the reactor is in Mode 6 (refueling mode) or in a defueled condition,'' and that the reanalysis ''supports reductions in administrative burdens related only to fuel movements, as described in the Application.'' Dominion Answer at 3. Dominion argues that the reanalysis ''does not involve any physical modifications to the plant equipment, alter the flowpath or the methods of processing and disposal of radioactive waste or byproducts, or increase the type and amounts of effluents that may be released off-site,'' *id.* (*citing* LAA, Cover Letter at 2, Attach. 2 at 16), but does ''incorporate[ ] revised assumptions regarding available equipment,'' which it contends is ''[c]onsistent with the very purpose of 10 C.F.R. § 50.67'' and has ''the objective of eliminating unnecessary regulatory or administrative burdens.'' Dominion Answer at 4.

According to Dominion, its reanalysis supports the proposed changes by demonstrating ''that the radiological consequences of a fuel handling accident inside containment — including postulated control room doses and doses at the exclusion area and low population zone boundaries — will be within the limits of 10 C.F.R. § 50.67, Reg Guide 1.183, and 10 C.F.R. Part 100 *without taking credit* for containment boundaries and certain equipment or automatic actions presently governed by the Millstone TS[s],'' and ''that the radiological consequences of a fuel handling accident outside containment (in the spent fuel pool building) will be within the applicable regulatory limits *without taking credit* for *any* containment or filtration of accident releases by the spent fuel building and ventilation system.'' *Id.* at 4-5 (emphasis in original) (*citing* Application, Attachs. 2, 4, 5). Certain features, Dominion says, ''are no longer required to be included in TS because they are not credited in the revised accident re-analysis,'' but it has nonetheless in its application described certain administrative controls that will be established ''to reduce radiological consequences further below regulatory limits,'' but which ''are not assumed in the analysis, are not required to meet the regulatory limits, and are proposed only as a defense-in-depth measure to further reduce postulated accident doses.'' Dominion Answer at 5-6.

In light of the preceding, Dominion contends that CCAM has merely reiterated conclusory assertions made in its original filing, and has not provided ''any meaningful technical basis on which to conclude that there is a genuine dispute.'' Dominion Answer at 8-9. Dominion argues that, while the ''common sense'' supposition that CCAM relies on from LBP-03-3 might be sufficient for a showing of standing, it is insufficient for an admissible contention, and CCAM has offered no basis for such a conclusion. Dominion Answer at 9-10 (*citing* LBP-03-3, 57 NRC at 61; *Millstone,* CLI-01-24, 54 NRC at 359).

Nor, Dominion argues, has CCAM in any way asserted, much less provided a basis for an assertion, that the DNC alternative source term accident reanalyses are in error. Dominion Answer at 10 (*citing* LAA, Attach. 1, Tables 6, 8). Moreover, according to Dominion, CCAM has failed to provide a basis for the assertion that there will be significant increases in radiological effluents; failed to engage the ''fundamental conclusion'' that, as assertedly demonstrated by the alternative source term analyses in the LAA, even with the associated changes in operational controls, there will be no increased offsite accident consequences; and failed to allege where and how the LAA fails to meet regulatory standards. Dominion Answer at 11.

In support of its argument to the effect that CCAM's contention, even if proven, would be of no consequence in the proceeding because it would not entitle the Petitioner to specific relief, Dominion asserts that, without any basis to challenge the accident analyses or demonstrate a significant safety issue, there is no regulatory basis for the relief sought by CCAM of disallowing leaving penetrations open during fuel movements. *Id.* at 12. In addition, Dominion argues, the contention does not meaningfully challenge the criteria for requiring technical specifications under 10 C.F.R. § 50.36. *Id.* at 12-13 (*citing* 64 Fed. Reg. at 71,992; *Private Fuel Storage,* LBP-98-7, 47 NRC at 180; LAA, Attach. 2, at 12-15).

Dominion also asserts that CCAM has shown no connection between the LAA at issue and the Sandia study it cites because the study in question ''pertains to beyond-design-basis spent fuel pool events and does not address design basis fuel handling events'' such as are addressed in its LAA, and argues that CCAM ''has not made any specific, affirmative demonstration of environmental impacts from the proposal'' that would warrant preparation of an environmental assessment (EA) or environmental impact statement (EIS) and thus meet the ''categorical exclusion'' criteria of 10 C.F.R. § 51.22(c)(9). Dominion Answer at 13-19. Finally, Dominion argues that CCAM is in effect impermissibly challenging postulated releases or accident doses that are within NRC regulatory limits in its assertions that the proposed changes involved in the LAA would ''adversely affect the public health and safety.'' *Id.* at 19-20.

D. NRC Staff Answer

The Staff asserts among other things that CCAM does not allege that the requested license amendment if granted would result in any violation of an NRC regulation or that CCAM's concern is not covered by an NRC regulation, nor does CCAM dispute Dominion's statement that the proposed license amendment will comply with section 50.67. Staff Answer at 6. In addition, the Staff argues that CCAM has not pointed to any particular part of the LAA that supports its position, or to any part of the Sandia report, nor does it offer any explanation of how the report is relevant or cite any part of it as supporting its argument. *Id.* at 7-8.

With regard to CCAM's reference to ''such additional sources and documents as are a matter of public record and as may be disclosed in discovery in these proceedings, the Staff suggests that this runs counter to the Commission's interpretation of section 2.714(b) as ''preclud[ing] a contention from being admitted where an intervenor has no facts to support its position and where the intervenor contemplates using discovery or cross-examination as a fishing expedition which might produce relevant facts.'' *Id.* at 8-9 (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 335 (1999); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 387 (2002); and Final Rule, ''Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process,'' 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989)).

Finally, the Staff argues, Petitioner CCAM has not demonstrated the existence of a genuine dispute on a material issue of fact or law, by virtue of its failure to provide any factual or scientific information, expert opinion, or supporting documents that produce some doubt about the adequacy of a specified portion of the applicant's documents — personal opinion and mere speculation not being sufficient to demonstrate such a ''genuine dispute.'' *Id.* at 9 (citing *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 NRC 509, 521 (1990); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 267 (1996); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 304, *vacated in part and remanded on other grounds,* CLI-95-10, 42 NRC 1, *aff'd in part,* CLI-95-12, 42 NRC 111 (1995)).

E. Oral Argument

In oral argument, CCAM stated through counsel that its position is that Dominion's application is ''counter to the purpose of the NRC in establishing the alternate source term approach,'' noting a statement from an NRC document relating to the alternative source term to the effect that the NRC did not intend

to approve any source term that is not of the same level of quality as the source terms in NUREG-1465. Tr. 8-10; *see also* SECY 99-240, ''Final Amendments to 10 CFR Parts 21, 50, and 54 and Availability for Public Comment of Draft Regulatory Guide DG-1081 and Draft Standard Review Plan Section 15.0.1 Regarding Use of Alternative Source Terms at Operating Reactors,'' Oct. 5, 1999. CCAM Counsel also referred to a document filed by Dominion on June 2, 2003, containing a response to a Request for Additional Information (RAI) from the NRC Staff, seeking clarification of what Dominion meant by the statement, ''if it is determined that closure of all containment penetrations would represent a significant radiological hazard to the personnel involved, the decision may be made to forgo the closure of the affected penetration(s).'' Tr. 13-14; LAA, Attach. 1 at 1. In this document, Dominion responded that the qualification of the 30-minute closure provision was ''prudent . . . given that analysis of the design basis fuel handling accident shows that closure is not required to assure that doses are within applicable limits,'' and also, among other things, that the ''radiological analysis of a fuel handling accident in containment did not credit containment closure within 30 minutes.'' *Id.*

With respect to the Sandia study not being relevant to design basis accidents, CCAM Counsel argued that possible revision of standards and requirements relating to design basis accidents in light of the events of September 11, 2001, suggests that such terrorism issues should be taken into account in this proceeding. Tr. 18-25. Counsel also, among other arguments, contended that Dominion has not adequately examined or established that the public will not be exposed to an ''enhanced risk'' as a result of the LAA, and that the primary basis for the challenge is the ''obvious potential for unexpected occurrences which would lead to releases that would violate the rules,'' along with the ''removal of a barrier that logic dictates should not be removed.'' Tr. 37-44.

In response to the CCAM argument that the LAA is counter to the NRC purpose in the rule, as well as to CCAM's questioning of Dominion's motivation in seeking the license amendment, *see* Tr. 28-30, Dominion Counsel quoted from the Statement of Considerations for the rule, as follows:

> The NRC concluded that some licensees may wish to use an alternative source term in analyses to support operational flexibility and cost-beneficial licensing actions in that some of these applications could provide concomitant improvements in overall safety and in reduced occupational exposure.

Tr. 47; 64 Fed. Reg. at 71,992.

With regard to CCAM's reference to NUREG-1465, Dominion Counsel pointed out that it is the basis for the source term reflected in Regulatory Guide 1.183 and also for that utilized in Dominion's application. Tr. 50. Regarding the questioned RAI response, Dominion Counsel explained that, applying the

alternative source term, taking ''no credit whatsoever in either the containment or the spent fuel area or spent fuel building for containment closure or for spent fuel area boundary closure,'' and assuming ''the entire source term of the design basis fuel handling event is released to the public,'' the releases at both the low population zone boundary and the exclusion area boundary are ''within NRC requirements.'' Tr. 51. Dominion has nonetheless adopted additional administrative controls as an ''added protection,'' in order ''to keep the doses even lower'' and ''in recognition that beyond design basis things are at least a hypothetical possibility,'' according to counsel. Therefore, Counsel argued, the qualification on the administrative control is prudent in the sense of not needing the control when it would cause a worker ''undue harm,'' but Dominion has still, in response to the RAI, established criteria for when the qualification would be implemented. Tr. 51-54. In addition, Counsel asserted, CCAM has not provided any specific basis for its allegation of ''unexpected conditions.'' *Id.* at 54.

Finally, among other arguments, *see* Tr. 54-61, Dominion called the alternative source term a ''good example of [the] philosophy of realistic conservatism'' that has been described by NRC Chairman Nils Diaz, which takes advantage of recent advances in technology; and noted that even under the current TSs, the containment personnel hatch can be open during fuel handling ''to be closed within 10 minutes in the event of a fuel handling accident.'' Tr. 58-60.

During oral argument Staff Counsel provided clarification of various points in dispute as well as regarding Staff action relating to the LAA, and responded to various arguments of CCAM relating to safety and dose issues. Tr. 93-143.

F. Dominion Additional Dose Calculations

After oral argument, at the request of the Board, Tr. 78-81, 160, Dominion submitted additional information, ''comparing four cases of a postulated design basis fuel handling accident inside containment at Millstone Unit 2, utilizing an Alternative Source Term (AST),'' and calculating offsite doses, for the Exclusion Area Boundary (EAB) and the Low Population Zone (LPZ). Eakin Aff. at 1, ¶ 3. (Mr. William Eakin is a ''supervisor of radiological engineering employed by Dominion.'' Tr. 6.) According to these calculations, using the AST in each and stating doses in terms of Total Effective Dose Equivalent (TEDE), the following results are reported: (1) assuming the current TSs (which allow the personnel hatch to be open under administrative control and closed at 10 minutes) and 150 hours of fuel decay prior to fuel movement (stated to be consistent with current and proposed TSs, both of which allow fuel movement only after 150 hours of decay), the dose at the EAB and LPZ would be 0.3483 and 0.04567 rem, respectively; (2) assuming no credit for the administrative controls in the proposed TSs (with the entire FHA source term released over 2 hours), in accordance with the guidance of Reg. Guide 1.183, and 150-hour fuel decay, the dose at the

EAB and LPZ would be 0.7942 and 0.1042 rem, respectively; (3) assuming the proposed TSs (with containment penetrations open under administrative control and closed at 30 minutes) and 150-hour fuel decay, the dose at the EAB and LPZ would be 0.6539 and 0.08576 rem, respectively; (4) assuming no credit for the administrative controls in the proposed TSs (with the entire FHA source term released over 2 hours) and also assuming only 72-hour fuel decay for conservatism (as in the Application Analysis), the dose at the EAB and LPZ would be 1.132 and 0.1485 rem, respectively. Dominion Nuclear Connecticut Supplemental Dose Calculations — Alternative Source Term Millstone Unit 2 (June 19, 2003), at 1. (The Application actually rounds the results in Case 4 and lists the respective doses as 1.2 and 0.15 rem. *Id.* at 2, ¶ 5.)

It is also pointed out in the materials filed June 20 that the dose criterion provided in Reg. Guide 1.183 is 6.3 rem for design basis fuel handling accidents, a ''small fraction'' of the 25-rem TEDE dose limit prescribed in 10 C.F.R. § 50.67. *Id.* at 2, ¶ 8. Affiant Eakin suggests the most relevant comparison of what will be changed if the proposed TSs are implemented is that between cases (1) (current TSs) and (3) (proposed TSs), and that comparing cases (2) and (3) ''shows the effect of adopting the proposed [TSs]/administrative controls as defense-in-depth to further mitigate postulated releases below the regulatory limit.'' Eakin Aff. at 2, ¶ 4.

G. Board Ruling on Petitioner's Contention

As indicated above, the rule governing revision of the source term and use of an alternative source term is 10 C.F.R. § 50.67. This section provides as follows:

> **§ 50.67 Accident source term.**
>
> (a) Applicability. The requirements of this section apply to all holders of operating licenses issued prior to January 10, 1997, and holders of renewed licenses under part 54 of this chapter whose initial operating license was issued prior to January 10, 1997, who seek to revise the current accident source term used in their design basis radiological analyses.
>
> (b) Requirements. (1) A licensee who seeks to revise its current accident source term in design basis radiological consequence analyses shall apply for a license amendment under § 50.90. The application shall contain an evaluation of the consequences of applicable design basis accidents[1] previously analyzed in the safety analysis report.
>
> (2) The NRC may issue the amendment only if the applicant's analysis demonstrates with reasonable assurance that:
>
> (i) An individual located at any point on the boundary of the exclusion area for any 2-hour period following the onset of the postulated fission product release, would

not receive a radiation dose in excess of 0.25 Sv (25 rem)[2] total effective dose equivalent (TEDE).

(ii) An individual located at any point on the outer boundary of the low population zone, who is exposed to the radioactive cloud resulting from the postulated fission product release (during the entire period of its passage), would not receive a radiation dose in excess of 0.25 Sv (25 rem) total effective dose equivalent (TEDE).

(iii) Adequate radiation protection is provided to permit access to and occupancy of the control room under accident conditions without personnel receiving radiation exposures in excess of 0.05 Sv (5 rem) total effective dose equivalent (TEDE) for the duration of the accident.

[64 FR 72001, Dec. 23, 1999]

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[1] The fission product release assumed for these calculations should be based upon a major accident, hypothesized for purposes of design analyses or postulated from considerations of possible accidental events, that would result in potential hazards not exceeded by those from any accident considered credible. Such accidents have generally been assumed to result in substantial meltdown of the core with subsequent release of appreciable quantities of fission products.

[2] The use of 0.25 Sv (25 rem) TEDE is not intended to imply that this value constitutes an acceptable limit for emergency doses to the public under accident conditions. Rather, this 0.25 Sv (25 rem) TEDE value has been stated in this section as a reference value, which can be used in the evaluation of proposed design basis changes with respect to potential reactor accidents of exceedingly low probability of occurrence and low risk of public exposure to radiation.

64 Fed. Reg. at 72,001-02.

We find that, although Petitioner CCAM raised a concern that was sufficient to demonstrate standing in this proceeding, *see generally* LBP-03-3, it has not presented any specific issue, supported by a basis stated with reasonable specificity, to show that a genuine dispute exists with regard to whether the application at issue meets the requirements of 10 C.F.R. § 50.67(b)(2), or whether the proposed changes in technical specifications are appropriate in light of the requirements of either section 50.67 or the rule on technical specifications, 10 C.F.R. § 50.36. Nor, we find, has the Petitioner, under the contention requirements of 10 C.F.R. § 2.714, specifically or directly challenged or controverted any particular part of the application with regard to any legal or factual issue that would make a difference in the outcome of this proceeding, such that it could be entitled to any relief in the proceeding. Therefore, we must find CCAM's contention to be inadmissible.

We did, in LBP-03-3, state that if, after the proposed changes at issue are implemented, in fuel movement operations ''containment penetrations are left open, as challenged by Petitioners, rather than having automatic and other closing functions operable or in effect, it would seem self-evident that in the event of an accident there is a greater likelihood of a release of radioactivity that might

have an impact on a person who lives near the plant.'' LBP-03-3, 57 NRC at 61. We also stated that ''if a fuel handling accident occurs during refueling, and the containment door is left open, common sense indicates that more radioactivity is going to escape the containment than if the doors were closed,'' and found that an event of a fuel handling accident involving spent fuel would ''quite obviously entail an increased potential for offsite consequences.'' *Id.* at 61-62.

However, although we found these circumstances sufficient to show standing, for which ''even minor radiological exposures resulting from a proposed licensee activity can be enough to create the requisite injury in fact,'' *id.* at 62, the requirements for an admissible contention are, as indicated above, considerably more stringent. CCAM makes various allegations in its contention and basis therefor, including that the potential offsite consequences of a fuel handling accident under the new TSs could be ''severe and indeed catastrophic,'' but offers little support for such statements other than reference to the application itself, LBP-03-3, and the October 2000 Sandia report, which applies to severe accidents and not design basis accidents such as are at issue in the application. We do not find these to constitute sufficient support to admit the one contention put forth in this proceeding.

Although a contention may be supported by a fact-based argument, such an argument must provide sufficient information to show a genuine issue of law or fact, a requirement the Petitioner has not fulfilled in this proceeding with sufficient basis or specificity. Mere allegation that increases in offsite releases or increased probability of consequences of an accident will be ''significant'' is not enough to demonstrate such a genuine issue, especially when the Petitioner has not specifically or directly challenged whether the Applicant meets the requirements of section 50.67(b)(2) or section 50.36, or even stated with any specificity *how* any increases would occur. Again, although an ''obvious potential for offsite consequences'' may be sufficient to show standing, it is not in itself sufficient to support an admissible contention.

Nor has Petitioner CCAM, either explicitly or implicitly, raised any challenge to the specific dose calculations using the alternative source term that were provided either in the LAA or after oral argument in this proceeding. The dose calculations provided on June 20 by the Licensee show some increase in projected doses but also show values that are well below allowed public exposures. According to these calculations, any increases in doses are a very small fraction of the FHA dose of 6.3 rem[2] and an even smaller fraction of the 25-rem TEDE limit prescribed under 10 C.F.R. § 50.67(b)(2)(i), (ii). Petitioner alleges a lowering of

[2] *See* Regulatory Guide 1.183, Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors (July 2000), at 1.183-20, Table 6.

safety as a result of increases, but does not provide a specific basis for establishing this, sufficient to demonstrate a genuine dispute on a material issue.

With regard to the details of the ''administrative controls'' that will be employed to isolate containment in the event of a fuel handling accident, although the application did not specify these, in its June 2 supplementary filing the Applicant provided greater detail on what radiation levels would require a person to go into the radiation field to close the personnel hatch and which conditions might cause this action to be suspended. By specifying what conditions would trigger the administrative controls and what time period would expire before the hatch would be closed, the Applicant has identified the critical issues. The changes at issue appear essentially to increase the time that containment could be open following an accident from 10 to 30 minutes, and in these circumstances we do not find that challenging a lack of a detailed description of such relatively simple activities as closing a personnel access to containment, such as is already being done under the current TSs, raises a genuine dispute on a material issue of law or fact.

Regarding CCAM's arguments relating to terrorism, the Commission has ruled that such issues are being addressed generically with regard to all plants and therefore are not appropriate subjects for individual proceedings. *See Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335 (2002); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340 (2002); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358 (2002); *Dominion Nuclear Connecticut, Inc.* (Millstone Power Station, Unit 3), CLI-02-27, 56 NRC 367 (2002).

Whether or not, as the application implicitly contemplates (even though the Applicant has not addressed these in any significant manner), the operational advantages to having free access to containment during fuel handling justifies the small calculated increases in public dose, CCAM has not challenged the increases or the operational changes in a sufficiently specific manner so as to raise a genuine dispute of material fact or law that could lead to any relief in this proceeding. Nor has Petitioner shown how or why any specific event beyond the applicable design basis accident should be considered in this proceeding. In light of this and the preceding circumstances, we conclude that Petitioner CCAM has not submitted a contention that is admissible under relevant rules and law.

III. ORDER

Based upon the analysis set forth above, the Licensing Board hereby dismisses CCAM's contention and terminates this proceeding.

This Order is subject to appeal in accordance with the provisions of 10 C.F.R. § 2.714a. Any petitions for review meeting applicable requirements set forth therein must be filed within 10 days of service of this Memorandum and Order.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD[3]

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Dr. Thomas S. Elleman
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 18, 2003

[3] Copies of this Memorandum and Order were sent this date by Internet e-mail or facsimile transmission, if available, to all participants or counsel for participants.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judge:

G. Paul Bollwerk, III, Presiding Officer

In the Matter of **Docket No. 40-7580-MLA-2**
(ASLBP No. 03-813-04-MLA)

FANSTEEL, INC.
(Muskogee, Oklahoma Facility) **August 20, 2003**

In this proceeding concerning the request of Petitioner State of Oklahoma (State) for a hearing under 10 C.F.R. Part 2, Subpart L, regarding a plan submitted by Fansteel Inc. to decommission its Muskogee, Oklahoma facility, the Presiding Officer dismissed the State's hearing request based on findings that either (1) he lacked jurisdiction because the Fansteel decommissioning plan was not a license amendment request subject to a Subpart L hearing; or (2) the proceeding was moot because Fansteel had withdrawn its decommissioning plan.

RULES OF PRACTICE: JURISDICTION (PRESIDING OFFICER)

It is well established in this agency's jurisprudence that a presiding officer has the authority to rule in the first instance on questions regarding the existence and scope of his or her jurisdiction. *See, e.g., Duke Power Co.* (Perkins Nuclear Station, Units 1, 2, and 3), ALAB-591, 11 NRC 741, 742 (1980). Further, it is clear that a presiding officer generally has only the jurisdiction and power that he or she is delegated by the Commission and that such a delegation generally is made by the Commission's hearing or hearing opportunity notice, absent some special delegation to the presiding officer from the Commission. *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790 (1985).

RULES OF PRACTICE: JURISDICTION (PRESIDING OFFICER)

Under 10 C.F.R. Part 2, Subpart L, it is not necessary that a hearing request regarding a proposed materials licensing action await the issuance of a hearing notice. *See* 10 C.F.R. § 2.1205(d)(2). Nonetheless, the absence of such a notice does not create jurisdiction in the presiding officer.

RULES OF PRACTICE: JURISDICTION (PRESIDING OFFICER)

Absent a specific Commission directive regarding jurisdiction, the ministerial act of referring a hearing request to the Atomic Safety and Licensing Board Panel for appointment of a presiding officer would not, in and of itself, constitute any finding that would preclude the presiding officer from exercising his or her general authority to determine the presiding officer's jurisdiction over the proceeding.

RULES OF PRACTICE: JURISDICTION (PRESIDING OFFICER)

As a jurisdictional matter, a presiding officer cannot, for whatever reason, retain authority over a proceeding when the presiding officer lacked such jurisdiction ab initio.

RULES OF PRACTICE: WITHDRAWAL OF LICENSE APPLICATION; MOOTNESS

As the agency's regulatory scheme and adjudicatory precedent make apparent: (1) In the absence of a hearing notice, a participant generally is free to withdraw a request for a licensing action without presiding officer approval or conditions; and (2) such an action effectively moots the proceeding. *See* 10 C.F.R. § 2.107(a); *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Units 1 and 2), CLI-00-9, 51 NRC 293, 294 (2000); *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), LBP-86-37, 24 NRC 719, 724 (1986).

MEMORANDUM AND ORDER
(Dismissal of Proceeding)

Pending before the Presiding Officer is a June 16, 2003 request by Petitioner State of Oklahoma (State) for a hearing regarding a January 14, 2003 decommissioning plan submitted by Fansteel Inc. (Fansteel). The plan outlines Fansteel's program for decommissioning its former rare metal extraction facility near Muskogee, Oklahoma, at which, under its existing 10 C.F.R. Part 40 source materials license, Fansteel is authorized to possess natural uranium and thorium

in any form. Also pending, however, is a July 9, 2003 show-cause order directed to the State in which the Presiding Officer posed the question whether this proceeding should be dismissed in light of a June 26, 2003 Fansteel letter to the NRC Staff indicating it was withdrawing its January 2003 decommissioning plan.

As detailed below, the Presiding Officer now finds that he lacks jurisdiction or that this proceeding is moot, either of which requires that this cause must be dismissed.

I. BACKGROUND

Although it filed in January 2002 for bankruptcy under Chapter 11 of the United States Bankruptcy Code, in August 2002 Fansteel sought renewal of its 10 C.F.R. Part 40 source materials license. *See* Letter from Gary L. Tessitore, Fansteel Chief Executive Officer (CEO), to Ellis W. Merschoff, NRC Region IV Regional Administrator 1 (Jan. 15, 2002); Letter from A. Fred Dohmann, Fansteel General Manager, to John W. Hickey, NRC Office of Nuclear Material Safety and Safeguards (NMSS) 1 (Aug. 27, 2002). In an October 22, 2002 letter, the NRC Staff denied the Fansteel renewal application and required that Fansteel proceed to decommission its Muskogee facility. *See* Letter from Larry W. Camper, NRC Office of Nuclear Materials Safety and Safeguards (NMSS), to Gary L. Tessitore, Fansteel CEO 2 (Oct. 22, 2002). As a consequence, on January 14, 2003, Fansteel submitted a decommissioning plan.[1] *See* Letter from Gary L. Tessitore, Fansteel CEO, to James C. Shepard, NRC NMSS, attach. (Jan. 14, 2003). Thereafter, on April 28, 2003, the Staff advised Fansteel that further information would be required to conduct a proper review of the plan, which resulted in Fansteel submitting a May 8, 2003 letter that outlined a four-phased approach to decommissioning the site. *See* Letter from Daniel M. Gillen, NRC NMSS, to Gary L. Tessitore, Fansteel CEO 1-2 (Apr. 28, 2003); Letter from Gary L. Tessitore, Fansteel CEO, to Daniel M. Gillen, NRC NMSS 1-2 (May 8, 2003).

When the Staff responded with a May 9, 2003 letter indicating it had received sufficient information to proceed with a technical review of the Fansteel plan, the State filed its pending June 16, 2003 hearing request in which it presented its concerns regarding the January 2003 decommissioning plan. *See* Letter from Daniel M. Gillen, NRC NMSS, to Gary L. Tessitore, Fansteel CEO 1 (May 9,

[1] It should be noted this is not the first decommissioning plan Fansteel has proffered to the agency. In July 1998, some 8 years after processing operations ceased at its Muskogee facility, Fansteel submitted a decommissioning plan that was the subject of an October 1999 State hearing request. *See* LBP-99-47, 50 NRC 409, 410-11 (1999). Although the State's hearing request was granted in that proceeding, the case ultimately was dismissed because Fansteel abandoned its license amendment application relating to that decommissioning plan. *See* LBP-01-2, 53 NRC 82, 82-83 (2001).

2003); [State] Request for Hearing (June 16, 2003) at 21-40. In a June 26, 2003 letter to the Staff, however, citing the Staff's determination that day to suspend its review of the decommissioning plan and the State's pending hearing request, Fansteel declared it was withdrawing its January 2003 decommissioning plan. *See* Letter from Gary L. Tessitore, Fansteel CEO, to James C. Shepherd, NRC NMSS 1 (June 26, 2003). The Staff acknowledged this withdrawal in a July 8, 2003 letter in which it noted that (1) Fansteel's current Part 40 license containing a license condition (No. 26) addressing a previously approved decommissioning plan that was not the four-phased approach suggested by the May 8 Fansteel letter; and (2) Fansteel had advised the Staff following submission of the State's hearing request that the Staff should not consider Fansteel's submittal of its decommissioning plan as a request for a license amendment. As a consequence, the Staff indicated, a license amendment application would be required from Fansteel to obtain approval of its decommissioning plan. *See* Letter from James C. Shepherd, NRC NMSS, to Gary L. Tessitore, Fansteel CEO 1 (July 8, 2003).

It was at this juncture that the Presiding Officer was designated to preside over this proceeding and, previously having been served by Fansteel with a copy of its June 26 withdrawal letter, ordered the State to show cause why the proceeding should not be dismissed. *See* 68 Fed. Reg. 41,851 (July 15, 2003); Presiding Officer Show Cause Order (Dismissal of Proceeding) (July 9, 2003) at 1. In an initial response, Fansteel asked that the proceeding be held in abeyance pending notification of its planned actions with respect to the decommissioning plan, a request that the State, but not the Staff, opposed. *See* Notification of [Fansteel] in Connection with Show Cause Order (July 15, 2003) at 1; [State] Objection to Notification of [Fansteel] in Connection with Show Cause Order (July 15, 2003) at 1-2; NRC Staff Response to Notification of [Fansteel] in Connection with Show Cause Order (July 16, 2003) at 1. When the Presiding Officer denied this Fansteel request, *see* Presiding Officer Order (Denying Request To Hold Proceeding in Abeyance) (July 16, 2003) at 1; *see also* Presiding Officer Memorandum (Acknowledging NRC Staff Response) (July 16, 2003) at 1, the State filed its answer to the Presiding Officer's show-cause order on July 17, 2003, asserting that Fansteel's withdrawal of its decommissioning plan would cause legal harm and thus should be denied or, alternatively, conditioned on Fansteel (1) providing adequate funding to complete an agency-approved decommissioning; (2) evaluating the Muskogee site and containing any contamination migration under an adequately funded cleanup regime; and (3) implementing and adequately funding a groundwater treatment plan. *See* [State] Objection and Show of Harm to [Fansteel] Withdrawal of Decommissioning Plan (July 17, 2003) at 4-9.

In its July 25, 2003 response to this State submission, observing that it was that day resubmitting its decommissioning plan with a license amendment request, Fansteel declared that while the State's hearing request could be dismissed as moot, it had no objection to the Presiding Officer holding that request pending

the receipt of any other hearing requests filed in the wake of an anticipated Staff *Federal Register* hearing opportunity notice. *See* Response of [Fansteel] to the [State] Objection and Show of Harm to [Fansteel] Withdrawal of Decommissioning Plan (July 24, 2003) at 1-2. For its part, the Staff likewise asserted that the State's hearing petition was moot; however, noting its intention to publish a hearing opportunity in the near future, the Staff indicated it had no objection to the Presiding Officer retaining jurisdiction over the State's submission. *See* NRC Staff Response to the [State] Objection and Show of Harm to [Fansteel] Withdrawal of Decommissioning Plan (July 25, 2003) at 5-6. Finally, after obtaining permission from the Presiding Officer, on August 7, 2003, the State filed a reply to the Fansteel and NRC responses, asserting that the proceeding is not moot because the Presiding Officer has jurisdiction over the proceeding, including any supplemented Fansteel decommissioning plan, and that dismissal would be inappropriate in any event because it would cause unnecessary delay to the ultimate remediation of the Fansteel site that would be detrimental to the State. *See* [State] Reply to Fansteel and NRC Staff's Response (Aug. 7, 2003) at 9.

In accordance with the representations in its July 24 filing, Fansteel has resubmitted the decommissioning plan, with new supplemental material, which is accompanied by a license amendment application (NRC Form 313). *See* Letter from Gary L. Tessitore, Fansteel CEO, to Daniel M. Gillen, NRC NMSS 1 (July 24, 2003). Thereafter, the Staff published a *Federal Register* notice indicating it was considering the July 24 Fansteel license amendment request and that interested persons could timely request a 10 C.F.R. Part 2, Subpart L hearing on that request on or before September 10, 2003. *See* 68 Fed. Reg. 47,621, 47,622 (Aug. 11, 2003).

II. DISCUSSION

It is well established in this agency's jurisprudence that a presiding officer has the authority to rule in the first instance on questions regarding the existence and scope of his or her jurisdiction. *See, e.g., Duke Power Co.* (Perkins Nuclear Station, Units 1, 2, and 3), ALAB-591, 11 NRC 741, 742 (1980). Further, it is clear that a presiding officer generally has only the jurisdiction and power that he or she is delegated by the Commission and that such a delegation generally is made by the Commission's hearing or hearing opportunity notice. *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790 (1985). In applying these principles here, it seems apparent that while the Presiding Officer had the authority to raise the issue of his jurisdiction over the State's hearing request, a critical component in making that determination — a hearing opportunity notice — did not exist in connection with the State hearing

request when it was submitted in mid-June 2003.[2] As a consequence, answering the question whether presiding officer jurisdiction exists in this instance devolves to an analysis of what authority to conduct hearings is provided to the presiding officer by other statutory or regulatory dictates.

As it is pertinent here, the agency's organic statute, the Atomic Energy Act of 1954 (AEA), as amended, makes clear in section 189a that interested persons may request a hearing relative to ''any proceeding under this Act, for the granting, suspending, revoking, or amending of any license or construction permit.'' 42 U.S.C. § 2239(a)(1)(A). Likewise, in the context of 10 C.F.R. Part 2, Subpart L, the procedural construct that was invoked in the Commission's referral of the State's hearing request to the Licensing Board Panel for appointment of a presiding officer, *see* 68 Fed. Reg. at 41,851, the hearing requests that are subject to consideration are those regarding ''[t]he grant, renewal, or licensee-initiated amendment of a materials license subject to part[ ] . . . 40.'' 10 C.F.R. § 2.1201(a)(1). Thus, absent some special delegation to the presiding officer from the Commission, which was not present in this instance,[3] the presiding officer's authority pursuant to such a referral would be to consider a hearing request relating to an amendment request by a licensee, such as Fansteel.

As has been observed elsewhere, to what extent a requested Staff action is, or is not, a licensing action subject to a hearing request is not necessarily easy to discern. *See Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-96-13, 44 NRC 315, 326-27 (1996). Nonetheless, as the Staff concluded in this instance (and Fansteel apparently agreed), the decommissioning plan, in and of itself, was not a request for a license amendment.[4] Indeed, it was not until late July 2003 that Fansteel proffered such a request along with a revised version of its decommissioning plan. *See* 10 C.F.R. § 40.44 (requiring amendment application to be on NRC Form 313, in accordance with 10 C.F.R. § 40.31). As a

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[2] Of course, as 10 C.F.R. Part 2, Subpart L recognizes, it is not necessary that a hearing request regarding a proposed materials licensing action await the issuance of a hearing notice. *See* 10 C.F.R. § 2.1205(d)(2). Nonetheless, the absence of such a notice does not create jurisdiction in the presiding officer.

[3] The Commission did perform the ministerial act of referring the State's request to the Atomic Safety and Licensing Board Panel for the appointment of a presiding officer. *See* 68 Fed. Reg. at 41,851. Absent a specific Commission directive regarding jurisdiction, however, this referral would not, in and of itself, constitute any finding that would preclude the presiding officer from exercising the previously referenced general authority to determine the presiding officer's authority over the proceeding.

[4] This lack of any pending Fansteel license amendment application distinguishes this situation from cases like *U.S. Army* (Jefferson Proving Ground Site), LBP-01-32, 54 NRC 283, 287-89 (2001), in which a presiding officer has retained jurisdiction over a Subpart L proceeding in the face of significant applicant revisions to the decommissioning plan underlying a pending license amendment request.

consequence, whether under the AEA or Subpart L, the presiding officer lacked jurisdiction over the State's June 2003 hearing request attempting to challenge the validity of the January 2003 Fansteel decommissioning plan. Moreover, the various participants' suggestions that it would be more ''efficient'' if the presiding officer ''retained'' jurisdiction over this matter fail to recognize that, as a jurisdictional matter, a presiding officer cannot, for whatever reason, retain authority over a proceeding when the presiding officer lacked such jurisdiction ab initio. Thus, the Presiding Officer having been without jurisdiction over this proceeding in the first instance, this case must be dismissed.

It is also worth noting, however, that there is an alternative, equally sound basis for dismissing this action. As was noted previously, in late June 2003 Fansteel voluntarily withdrew its decommissioning plan from further agency consideration. As the agency's regulatory scheme and adjudicatory precedent make apparent: (1) in the absence of a hearing notice, a participant generally is free to withdraw a request for a licensing action without presiding officer approval or conditions; and (2) such an action effectively moots the proceeding. *See* 10 C.F.R. § 2.107(a); *Niagra Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Units 1 and 2), CLI-00-9, 51 NRC 293, 294 (2000); *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), LBP-86-37, 24 NRC 719, 724 (1986). In line with this authority, Fansteel's action withdrawing its decommissioning plan from further agency consideration prior to the issuance of a notice of hearing effectively mooted this cause, so as to warrant its dismissal.[5]

Finally, although dismissal of this proceeding will require that the State file a new hearing request if it wishes to challenge Fansteel's late-July 2003 license amendment application and the accompanying decommissioning plan, the prejudice to the State is not untoward given that, up to this point, it has submitted only one substantive pleading regarding the Fansteel decommissioning plan — its June 2003 hearing request — that it should have ample time to reformulate and submit under the terms of the Staff's recently issued hearing opportunity notice.

III. CONCLUSION

Fansteel's January 2003 decommissioning plan having been merely a plan of action, not a formal application for a license amendment as required by 10

[5] This is at least the second time that Fansteel has submitted and then taken actions to discontinue Staff review of, and a State challenge to, a decommissioning plan for its Muskogee facility. If this should occur again relative to the pending July 2003 license amendment application in a context in which presiding officer consideration was appropriate, this sequence of events seemingly would be a factor to be weighed in determining whether to condition, or even permit, the application's withdrawal. *See Duke Power Co.* (Perkins Nuclear Station, Units 1, 2, and 3), LBP-82-81, 16 NRC 1128, 1134-35 (1982).

C.F.R. § 40.44, the Presiding Officer lacked jurisdiction over the State's June 2003 hearing request seeking to challenge that plan in a 10 C.F.R. Part 2, Subpart L proceeding. Alternatively, because Fansteel withdrew that plan as the subject of further agency consideration prior to the issuance of notice of hearing, this proceeding is now moot. In either instance, the State's hearing request must be denied and this case dismissed.

For the foregoing reasons, it is, this twentieth day of August 2003, ORDERED that:

1. The State of Oklahoma's June 16, 2003 request for hearing regarding Fansteel's January 14, 2003 decommissioning plan is *denied* and this proceeding is *dismissed* and *terminated*;

2. In accordance with 10 C.F.R. § 2.1205(o), this action by the Presiding Officer denying the State's hearing request in its entirety is appealable to the Commission within ten (10) days of service of this Memorandum and Order. An appeal may be taken by filing and serving upon the Commission and all participants a statement that succinctly sets out, with supporting argument, the errors alleged. The appeal may be supported or opposed by any participant by filing a counterstatement within fifteen (15) days of the service of the appeal brief.

BY THE PRESIDING OFFICER[6]

G. Paul Bollwerk, III
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 20, 2003

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[6] Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Fansteel; (2) the State; and (3) the Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman
Dr. Charles N. Kelber
Dr. Peter S. Lam

In the Matter of **Docket No. 70-03098-ML**
(ASLBP No. 01-790-01-ML)

DUKE COGEMA STONE & WEBSTER
(Savannah River Mixed Oxide Fuel Fabrication Facility)

August 28, 2003

In response to Applicant Duke Cogema Stone & Webster's (DCS) assertion that it is not required to pay expert witness fees of the deponent of Georgians Against Nuclear Energy (GANE), the Licensing Board rules that 10 C.F.R. § 2.740a(h) requires DCS to pay the expert witness a reasonable fee for his participation and time at the deposition.

RULES OF PRACTICE: EXPERT WITNESS

According to 10 C.F.R. § 2.740a(h), ''[a] deponent whose deposition is taken and the officer taking a deposition shall be entitled to the same fees as are paid for like services in the district courts of the United States, to be paid by the party at whose instance the deposition is taken.'' The 10 C.F.R. § 2.740a(h) reference to ''the same fees as are paid for like services in the district courts'' necessarily incorporates the provision for expert witness fees contained in Rule 26(b)(4)(C) of the Federal Rules of Civil Procedure.

STATUTORY CONSTRUCTION OR INTERPRETATIONS: GENERAL RULES

The most reasonable explanation for the Commission's failure to amend section 2.740a(h) to address specifically the payment of expert witnesses as provided by Rule 26(b)(4)(C) of the Federal Rules of Civil Procedure is that the Commission simply concluded that this would be unnecessary because the NRC regulations already contained a provision dealing with the payment of witnesses for depositions. Thus, any subsequent changes in the procedures of federal district courts regarding payments to expert witnesses for depositions would automatically be incorporated into the NRC regulations through the reference in section 2.740a(h) to ''the same fees as are paid for like services in the district courts of the United States.'' *See* 2A Norman J. Singer, *Sutherland Statutory Construction* § 48.18, at 482-87 (6th ed. 2000).

RULES OF PRACTICE: EXPERT WITNESS

When a non-expert witness is deposed, the district courts require the deposing party to pay the witness's expenses and a nominal fee of $40 per day under 28 U.S.C. § 1821. When an expert witness is deposed, however, the district courts require the party seeking the deposition to pay a reasonable fee under Rule 26(b)(4)(C).

RULES OF PRACTICE: PRECEDENTIAL EFFECT OF BOARD RULINGS

Unreviewed board rulings do not constitute binding precedent. *See, e.g., Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 343 n.3 (1998) (citing *Florida Power and Light Co.* (St. Lucie Nuclear Power Plant, Unit 1), ALAB-893, 27 NRC 627, 629 n.5 (1998)).

RULES OF PRACTICE: EXPERT WITNESS

Taking the deposition of an expert witness and compensating the expert for his time is clearly distinguishable from paying an intervenor's attorney's fees because expert witness fees are paid directly to the expert to compensate the expert, not the intervenor. The Energy and Water Development Appropriations Act provides that ''[n]one of the funds in this Act or subsequent Energy and Water Development Appropriations Acts [EWDAA] shall be used to pay the expenses of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings funded in such Acts.'' Energy and Water Development Appropriations Act, 1993, Pub. L. No. 102-377, § 502, 106 Stat. 1342 (1992) (codified at 5 U.S.C. § 504 note).

Since the expert witness receives payment under 10 C.F.R. § 2.740a(h), and not the intervenor, such payment does not violate the Act.

RULES OF PRACTICE: EXPERT WITNESS

The statutory prohibition on intervenor funding in the 5 U.S.C. § 504 note does not prevent a government contractor from paying expert witness fees with nonrestricted funds.

MEMORANDUM AND ORDER
(Ruling on Expert Witness Fee Issue)

On June 17, 2003, Georgians Against Nuclear Energy (GANE) filed a motion seeking a protective order to postpone or cancel Duke Cogema Stone & Webster's (DCS) deposition of Dr. Leland Timothy Long because DCS was unwilling to pay Dr. Long a reasonable expert witness fee.[1] During a June 19, 2003, telephone conference, the Licensing Board ordered Dr. Long's deposition to go forward as scheduled. *See* Tr. at 16. The Board then directed GANE, DCS, and the NRC Staff to answer several questions regarding payment of expert witness fees. *See* Licensing Board Order (June 20, 2003) (unpublished). On June 25 and June 26, 2003, the deposition took place at the offices of DCS's counsel. The parties simultaneously filed their responses on June 30, 2003,[2] and the Board subsequently directed DCS to respond to the arguments of GANE and the NRC Staff regarding the applicability of the prohibition on intervenor funding in 5 U.S.C. § 504 note.[3] For the reasons set forth below, the Board concludes that 10 C.F.R. § 2.740a(h) requires DCS to pay Dr. Long a reasonable fee for his preparation and time at the deposition.

The Commission's Rules of Practice, specifically 10 C.F.R. § 2.740a(h), govern the resolution of this disagreement between DCS and GANE. Pursuant to 10

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[1] *See* Georgians Against Nuclear Energy's Motion for Protective Order and Request To Quash Deposition (June 17, 2003); Duke Cogema Stone & Webster's Response to Georgians Against Nuclear Energy's Motion for Protective Order and Request To Quash Deposition (June 18, 2003).

[2] *See* Georgians Against Nuclear Energy's Brief in Support of Motion for Protective Order and Request To Quash Deposition of Dr. Leland Timothy Long (June 30, 2003) [hereinafter GANE Brief]; Brief of Duke Cogema Stone & Webster in Response to the Board's Order Regarding Payment of Expert Deposition Fees (June 30, 2003) [hereinafter DCS Brief]; NRC Staff's Response to ASLB Order Instructing All Parties To Address Questions Regarding Payment of Expert Witness Fees (June 30, 2003) [hereinafter Staff Brief].

[3] *See* Licensing Board Order (July 3, 2003) (unpublished); Brief of Duke Cogema Stone & Webster in Response to the Board's Second Order Regarding Payment of Expert Deposition Fees (July 8, 2003) [hereinafter DCS Second Brief].

C.F.R. § 2.740(h), ''[a] deponent whose deposition is taken and the officer taking a deposition shall be entitled to the same fees as are paid for like services in the district courts of the United States, to be paid by the party at whose instance the deposition is taken.'' GANE and the Staff argue that this Commission regulation incorporates Rule 26(b)(4)(C) of the Federal Rules of Civil Procedure requiring that ''the party seeking discovery pay the expert a reasonable fee for time spent in responding to discovery.'' DCS, on the other hand, asserts that section 2.740a(h) requires only payment of the witness fees set out in 28 U.S.C. § 1821, the statutory fees and mileage allowances for witnesses appearing in federal court. The Board finds that the 10 C.F.R. § 2.740a(h) reference to ''the same fees as are paid for like services in the district courts'' necessarily incorporates the provision for expert witness fees contained in Rule 26(b)(4)(C) of the Federal Rules of Civil Procedure. In reaching this conclusion, the Board relies on the history, structure, and plain language of the Commission's regulation.

DCS correctly notes that, in 1956 when the NRC deposition rule was enacted,[4] the Federal Rules of Civil Procedure did not contain a provision governing discovery of an opposing party's expert. Similarly, DCS is correct in asserting that ''[a]t that time, the applicable *statute* addressing payment of deposition witness fees and costs was 28 U.S.C. § 1821.'' DCS Brief at 8 (emphasis added). Although there was no statute that dealt specifically with *expert* witness depositions when the NRC rule was adopted, if federal district courts allowed expert witness depositions at all,[5] they often required the party taking the deposition to pay the expert's fee.[6] In contrast to expert witness fees for depositions, fees paid to a fact witness were controlled by 28 U.S.C. § 1821, which required payment of travel expenses and a nominal attendance fee. DCS's argument overlooks the fact that prior to the adoption of the NRC regulation, the federal district courts had the discretion to require a deposing party to pay reasonable expert witness

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[4] *See* 21 Fed. Reg. 804 (Feb. 4, 1956). The deposition rule was originally codified in 10 C.F.R. § 2.745(h), but a 1962 revision redesignated the rule as 10 C.F.R. § 2.740(h), and slightly altered the language to comport with new regulations. *See* 27 Fed. Reg. 377 (Jan. 13, 1962).

[5] Prior to 1972, some federal district courts did not allow a party to depose its opponent's expert witnesses because it was considered to be ''equivalent to taking another's property without making any compensation therefor.'' *Lewis v. United Air Lines Transportation Corp.,* 32 F. Supp. 21, 23 (W.D. Pa. 1940); *Walsh v. Reynolds Metal Co.,* 15 F.R.D. 376, 378-79 (D.N.J. 1954). Other courts, however, indicated that judicial discretion must be exercised in determining whether to order an expert witness to testify. *See, e.g., Boynton v. R.J. Reynolds Tobacco Co.,* 36 F. Supp. 593, 595 (D. Mass. 1941); *United States v. 88 Cases, etc., of Bireley's Orange Beverage,* 5 F.R.D. 503, 507 (D.N.J. 1946).

[6] *See, e.g., United States v. Certain Acres of Land,* 18 F.R.D. 98, 101 (M.D. Ga. 1955) (*quoting* 4 *Moore's Federal Practice* ¶ 26.24, at 1158, as noting ''the court should have discretion to order discovery upon condition that the moving party pay a reasonable portion of the fees of the expert''); Jeremiah M. Long, *Discovery and Experts Under the Federal Rules of Civil Procedure,* 38 F.R.D. 111, 132-33 (1965) (citing cases where expert depositions were permitted and noting that courts generally required payment of expert fees by the party seeking to take the deposition).

fees. Thus, by adopting the federal district court practice in its deposition rule, the Commission necessarily intended a deposing party to pay reasonable fees to expert witnesses and the statutory fees to fact witnesses.

In 1970, Rule 26(b)(4)(C) was added to the Federal Rules of Civil Procedure to ''meet the objection that it is unfair to permit one side to obtain without cost the benefit of an expert's work for which the other side has paid, often a substantial sum.'' Fed. R. Civ. P. 26(b)(4) advisory committee's note, 1970 amendment, 48 F.R.D. 487, 505 (1970). The Staff is correct that the ''rule appears to codify the common law practice of paying a reasonable expert witness fee for a deposition.'' Staff Brief at 3. Two years later, in 1972, the NRC amended 10 C.F.R. § 2.740 and moved the provision on payment of witnesses for depositions from section 2.740(h) to section 2.740a(h). *See* 37 Fed. Reg. 15,127 (July 28, 1972). The text of the provision, however, remained unchanged from the 1962 version. Other provisions in section 2.740 were changed in 1972 to incorporate changes to the Federal Rules relating to discovery. Upon adopting these changes, the Commission noted, without elaboration, that the ''new § 2.740 has been added to Part 2 containing general provisions relating to discovery'' and ''[t]he new section adapts Rules 26 and 37 of the Federal Rules of Civil Procedure to Commission proceedings.'' 37 Fed. Reg. 15,127, 15,127 (July 28, 1972).

DCS argues that by failing to amend section 2.740a(h) to address specifically the payment of expert witnesses as provided by Rule 26(b)(4)(C) of the Federal Rules, the Commission affirmatively rejected the payment of reasonable fees to expert witnesses for depositions. When regulatory history indicates that the Commission has rejected an amendment, that rejection may be evidence the Commission did not intend the regulation to include the provision embodied in the rejected amendment. *See* 2A Norman J. Singer, *Sutherland Statutory Construction* § 48.18, at 482-83 (6th ed. 2000). It is well recognized, however, that ''such rejection may occur because the bill already includes those provisions.'' *Id.* at 484. As explained in the Sutherland treatise:

> An amendment may have been adopted, only because it better expressed a provision already embodied in the original bill or because the provision in the original bill was unnecessary as unwritten law would produce the same result without it. Thus caution must be exercised in using the action of the legislature on proposed amendments as an interpretive aid. Action on a proposed amendment is not a significant aid to interpretation of an act that was passed years before.

Id. at 485-87 (footnotes omitted). The history of section 2.740a(h) stands as an excellent example of the situation discussed in the Sutherland treatise. Although the regulatory history is silent, the most reasonable and rational explanation in light of the plain language of the agency rule, is that the Commission, in adapting its rules to the new Rule 26 of the Federal Rules, simply concluded

that it was unnecessary to amend section 2.740a(h) to address specifically the payment of expert witnesses, as had been done in the recently enacted Rule 26(b)(4)(C), because the NRC regulations already contained a provision dealing with the payment of witnesses for depositions. Thus, any subsequent changes in the procedures of federal district courts regarding payments to expert witnesses for depositions would automatically be incorporated into the NRC regulations through the reference in section 2.740a(h) to ''the same fees as are paid for like services in the district courts of the United States.''

Instead of relying upon the history or plain language of section 2.740a(h), DCS suggests that the Board look to 10 C.F.R. § 2.720(d), the Commission's subpoena regulation, to help interpret section 2.740a(h). Section 2.720(d) provides that ''[w]itnesses summoned by subpoena shall be paid, by the party at whose instance they appear, the *fees and mileage paid to witnesses* in the district courts of the United States.'' 10 C.F.R. § 2.720(d) (2003) (emphasis added). This regulatory language clearly refers to 28 U.S.C. § 1821, which provides that witnesses in the district courts will be paid a statutorily set attendance fee and travel costs.[7] DCS argues that there should be no difference in the fees paid to deponents summoned by subpoena under section 2.720(d) and those summoned by notice under section 2.740a(h), despite the fact that the two regulations contain significantly different language. *See* DCS Brief at 12. This argument is unpersuasive because, in contrast to section 2.720(d), section 2.740a(h) does not use language that refers to the ''fees and mileage paid witnesses in district court.'' Rather, section 2.740a(h) indicates that a deponent is ''entitled to the *same fees as are paid for like services* in the district courts of the United States.'' 10 C.F.R. § 2.740a(h) (emphasis added). The inference to be drawn from this disparate language is that section 2.740a(h) does not refer exclusively to the statutory witness fees in 28 U.S.C.

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[7] 28 U.S.C. § 1821 provides in part:

> (a)(1) Except as otherwise provided by law, a witness in attendance at any court of the United States, or before a United States Magistrate Judge, or before any person authorized to take his deposition pursuant to any rule or order of a court of the United States, shall be paid the fees and allowances provided by this section.
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> . . . .
>
> (b) A witness shall be paid an attendance fee of $40 per day for each day's attendance. A witness shall also be paid the attendance fee for the time necessarily occupied in going to and returning from the place of attendance at the beginning and end of such attendance or at any time during such attendance.
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> . . . .
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> (2) A travel allowance equal to the mileage allowance which the Administrator of General Services has prescribed, pursuant to section 5704 of title 5, for official travel of employees of the Federal Government shall be paid to each witness who travels by privately owned vehicle. Computation of mileage under this paragraph shall be made on the basis of a uniformed table of distances adopted by the Administrator of General Services.

§ 1821. Thus, section 2.740a(h) is not tied to a specific dollar amount, but instead simply requires that the deponent receive a fee that is the same as those fees paid in federal district court for similar services. When a non-expert witness is deposed, the district courts require the deposing party to pay the witness's expenses and a nominal fee of $40 per day under 28 U.S.C. § 1821. When an expert witness is deposed, however, the district courts require the party seeking the deposition to pay a reasonable fee under Rule 26(b)(4)(C).[8] Therefore, because section 2.740a(h) requires that same outcome, DCS must pay Dr. Long his reasonable fee.

In arguing that the witness fees referred to in both 10 C.F.R. §§ 2.740a(h) and 2.720(d) were intended to refer to the statutory fees found in 28 U.S.C. § 1821, DCS relies on *Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), LBP-77-18, 5 NRC 671 (1977). In *Black Fox,* the Licensing Board determined that the witness fees referred to in 10 C.F.R. § 2.740a(h) and 10 C.F.R. § 2.720(d) were ''intended to be the statutory fees provided for witnesses appearing in courts of the United States as set out in 28 U.S.C. 1821.'' *Black Fox,* 5 NRC at 673. Unreviewed Board rulings, however, do not constitute binding precedent. *See, e.g., Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 343 n.3 (1998) (citing *Florida Power and Light Co.* (St. Lucie Nuclear Power Plant, Unit 1), ALAB-893, 27 NRC 627, 629 n.5 (1988)). Furthermore, *Black Fox* is unpersuasive because it is devoid of rational analysis. The *Black Fox* Board ignored the plain language of 10 C.F.R. § 2.740a(h) that adopts the federal district court practice — a practice that includes the requirement that a deposing party pay an expert witness a reasonable fee. It then failed to analyze or explain why the Commission used different language in 10 C.F.R. §§ 2.740a(h) and 2.720(d) if it intended both to refer to the statutory fees found in 28 U.S.C. § 1821. Thereafter, in an *ipse dixit* fashion, the Board merely concluded that ''it has the authority to order the payment of such [reasonable] expert witness fees.'' *Black Fox,* 5 NRC at 673. Thus, the unreviewed *Black Fox* decision cannot stand as precedent, and its holding is unsupported by the history, structure, and plain language of the Part 2 regulations. Accordingly, that decision provides no valid foundation for DCS's argument.

DCS also argues that the statutory prohibition on intervenor funding that appears in 5 U.S.C. § 504 note bars them from paying Dr. Long. The prohibition provides that ''[n]one of the funds in this Act or subsequent Energy and Water Development Appropriations Acts [EWDAA] shall be used to pay the expenses of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings funded in such Acts.'' Energy and Water Development Appropri-

[8] *See Haarhuis v. Kunnan Enterprises, Ltd.,* 177 F.3d 1007, 1015-16 (D.C. Cir. 1999) (holding that 28 U.S.C. § 1821 does not preclude an award of reasonable expert witness deposition fees).

ations Act, 1993, Pub. L. No. 102-377, § 502, 106 Stat. 1342 (1992) (codified at 5 U.S.C. § 504 note).[9] DCS argues that, as a contractor of the Department of Energy (DOE), it is prohibited from paying Dr. Long because such payments would constitute intervenor funding.

Like the NRC, DOE is funded by Congress under the EWDAA. In arguing that the 5 U.S.C. § 504 note bars it from paying any deposition expert witness fees, DCS relies solely upon a Comptroller General decision holding that the intervenor funding prohibition precluded the NRC from paying an award under the Equal Access to Justice Act (EAJA) to intervenors in an NRC adjudication. *See Availability of Funds for Payment of Intervenor Attorney Fees — Nuclear Regulatory Comm'n,* 62 Comp. Gen. 692, 695 (1983). Based upon this decision, DCS claims that expert witness deposition fees would constitute a form of compensation to intervenors within the statutory prohibition. DCS Brief at 15-16. Here, however, the applicant is DCS, a DOE contractor, not DOE. The Comptroller General's decision neither involved nor discussed the payment of EAJA awards by an NRC contractor or a contractor's attorney. Therefore, DCS's argument cannot be sustained solely on the basis of this authority and DCS has cited to us no other authority for its claim that as a DOE contractor it cannot be obligated to pay intervenor expert witness deposition fees.[10]

Even assuming *arguendo* that DCS, as a contractor of the DOE, somehow stands in DOE's shoes with regard to intervenor funding, the statutory prohibition is inapplicable in this instance. First, the 5 U.S.C. § 504 note does not come into play because the expert deponent, not the intervenor, receives payments under 10 C.F.R. § 2.740a(h). As previously noted, the Comptroller General found the statutory prohibition to preclude the NRC from using appropriated funds to pay intervenor fees and costs under the EAJA because such payments ''constitute a form of compensation to intervenors and are therefore within the scope of the prohibition.'' *Availability of Funds,* 62 Comp. Gen. at 695. The Comptroller General held that ''[t]he plain terms of section 502 . . . unambiguously prohibit the use of appropriated funds for payments of any kind to intervenors.'' *Id.* at 695. From this quote, DCS emphasizes the prohibition of using funds ''of any kind.'' DCS Second Brief at 2. The fact that the prohibition covers only payments made ''to intervenors,'' however, is equally important because both 10 C.F.R. § 2.740a(h) and Rule 26(b)(4)(C) require direct payment to the deponent by the party seeking to take a deposition. The case law indicates that Rule 26(b)(4)(C)

[9] The prohibition first appeared in the EWDAA of 1982, Pub. L. No. 97-88, § 502, 95 Stat. 1135 (1981), but did not apply to future appropriation acts. Some later acts also contained this prohibitory language, but the EWDAA of 1993 made the prohibition applicable to all subsequent EWDAAs. *See* Energy and Water Development Appropriations Act, 1993, Pub. L. No. 102-377, § 502, 106 Stat. 1342 (1992) (codified at 5 U.S.C. § 504 note).

[10] *See infra* note 14.

creates a direct relationship between the party seeking discovery and the expert witness, and that the expert's fee is a cost of the party taking the deposition.[11] Thus, taking the deposition of an expert witness and compensating the expert for his time is clearly distinguishable from paying an intervenor's attorney's fees and costs because expert witness fees are paid directly to the expert to compensate the expert, not the intervenor.

Second, the 5 U.S.C. § 504 note is inapplicable because 10 C.F.R. § 2.740a(h) does not require appropriated funds to be used to provide special assistance just to intervenors. In another Comptroller General decision dealing with the prohibition on intervenor funding not referenced by DCS, a proposal for the NRC to provide free transcripts to all parties in its adjudications was approved, even though intervenors would incidentally benefit from the program. *See Free Transcripts of Adjudicatory Proceedings — Nuclear Regulatory Commission,* B-200,585, 1981 WL 23995 (Comp. Gen. 1981). The Comptroller General reasoned that the purpose of the statutory prohibition was ''to preclude the Commission from implementing any program which was intended to and had the principal effect of paying the adjudicatory expenses of intervenors as a special class.'' *Free Transcripts,* 1981 WL 23995, at *2. Because the NRC's proposal was aimed at increasing efficiency in agency proceedings, incidental benefits that accrued to intervenors would not cause the proposal to violate the statutory prohibition. *Id.* at *3. Although the Commission did not state its purpose in adopting 10 C.F.R. § 2.740a(h), the rule does not provide any special benefits to intervenors as a class. Rather, the rule treats all parties the same, making it similar to Rule 26(b)(4)(C). The Federal Rules of Civil Procedure Advisory Committee Notes on the 1970 Amendments explain that Rule 26(b)(4)(C) was adopted to ''meet the objection that it is unfair to permit one side to obtain without cost the benefit of an expert's work for which the other side has paid, often a substantial sum.'' Fed. R. Civ. P. 26(b)(4) advisory committee's note, 1970 amendment, 48 F.R.D. 487, 505 (1970). Similarly, section 2.740a(h) does not single out intervenors for some special privilege because it applies evenly to all intervenors and applicants. Any benefits that GANE receives in this case are incidental to the equitable purposes of section 2.740a(h). Accordingly, just as the Comptroller General held that the statutory prohibition on intervenor funding does not prevent EWDAA funds from being used to pay for transcripts, that prohibition does not bar DCS from paying expert witness fees.

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[11] *See Bosse v. Litton Unit Handling Systems,* 646 F.2d 689, 695 (1st Cir. 1981) (''It was defendant, however, who took their depositions. . . . [T]hey were not then plaintiff's witnesses at that time, but were called by defendant, and defendant, not plaintiff, is the one under whatever may be the obligation''); *Dominguez v. Syntex Labs., Inc.,* 149 F.R.D. 166, 170 (S.D. Ind. 1993) (''The rule plainly requires defendant to pay the expert, not the plaintiff'').

Indeed, to read the statutory prohibition as DCS proposes, would not only be in the teeth of the Comptroller General's transcript decision, but it would produce inequitable results. For example, GANE could be required to pay DCS's experts pursuant to 10 C.F.R. § 2.740a(h), but DCS would be excused from paying GANE's experts by operation of 5 U.S.C. § 540 note. Additionally, the Commission's rule has the salutary effect of giving parties such as DCS every incentive to conduct an efficient deposition. This conclusion is bolstered by the fact that the party deposing the expert witness, here DCS, is the party that benefits from the deposition. It is in the deposing party's interest to depose the expert witness because the deposition allows that party to develop and strengthen its case. Reimbursing the expert for his time is simply a cost of reaping that benefit.[12] Therefore, the statutory prohibition on intervenor funding is not applicable to the issue at hand.

Finally, the 5 U.S.C. § 504 note is inapplicable in these circumstances because DCS, as a government contractor, need not use appropriated funds to pay Dr. Long. Under its MOX contract, DCS asserts that it is reimbursed by DOE for its costs in obtaining construction authorization for the MOX facility. DCS in effect acknowledges, however, that it may pay some litigation expenses ''out of funds that will not be reimbursed by DOE.'' DCS Brief at 18. Although DCS reserves the right to contest such payments with respect to other deponents, it has voluntarily agreed to use other funds to pay Dr. Long $40 per day and reasonable travel expenses. DCS Brief at 18. Similarly, Comptroller General decisions indicate that appropriation restrictions that prevent government agencies from using federal funds to lobby do not prevent government contractors from lobbying using their own corporate funds.[13] These decisions are sufficiently analogous to support the proposition that the statutory prohibition on intervenor funding in the 5 U.S.C. § 504 note does not prevent a government contractor from paying expert witness fees with nonrestricted funds.[14] Thus, there is no reason why the 5 U.S.C. § 504 note should prevent DCS from paying Dr. Long here. Accordingly, the Board concludes that 10 C.F.R. § 2.740a(h) requires that DCS pay Dr. Long an expert witness fee, calculated at a rate not to exceed that which he charges GANE, for his reasonable preparation time and time at the deposition.

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[12] *See* 8 Charles Alan Wright et al., *Federal Practice and Procedure* § 2034, at 469 (2d ed. 1994) (''a party that takes advantage of the opportunity afforded by Rule 26(b)(4)(A) to prepare a more forceful cross-examination should pay the expert's charges for submitting to this examination'').

[13] *See* 1 GAO, *Principles of Federal Appropriations Law,* at 4-176 (2d ed. 1991); *Honorable Fortney H. (Pete) Stark — House of Representatives,* B-216,239, 1985 WL 668789 (Comp. Gen. 1985).

[14] Furthermore, any funds used to pay Dr. Long may well lose their identity as federal appropriated funds because DCS's retained attorneys in all likelihood would initially pay Dr. Long, then seek reimbursement from DCS, who in turn would seek reimbursement from DOE. DCS has cited no authority that such an attenuated chain does not break the link of federal appropriations.

IT IS SO ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD[15]

Thomas S. Moore, Chairman
ADMINISTRATIVE JUDGE

Charles N. Kelber
ADMINISTRATIVE JUDGE

Peter S. Lam
ADMINISTRATIVE JUDGE

Dated at Rockville, Maryland,
This 28th day of August 2003.

[15] Copies of this Order were sent this date by Internet e-mail transmission to (1) GANE; (2) DCS; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

Martin J. Virgilio, Director

In the Matter of **Docket No. 70-698**
(License No. SNM-770)

WESTINGHOUSE ELECTRIC COMPANY LLC
(Waltz Mill Service Center, Madison, PA)

August 26, 2003

The Director's Decision on a petition submitted October 30, 2002, from Viacom, Inc., pursuant to 10 C.F.R. § 2.206 concerning the decommissioning of the Westinghouse Test Reactor (WTR) facility near Madison, Pennsylvania, was issued on August 26, 2003. The Director's Decision concludes that Viacom's request for: (1) Westinghouse to release characterization data is now moot and will no longer be addressed; (2) Westinghouse to accept residual radioactive material from the WTR into their NRC Special Nuclear Material license is denied; (3) the NRC to find Westinghouse in violation of 10 C.F.R. § 50.5 is denied; and (4) the NRC to interpret the provisions of the Decommissioning Plan for the WTR in response to a separate Viacom, Inc. letter submitted on October 29, 2002, is granted.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

I. INTRODUCTION

By letter dated October 30, 2002, Viacom, Inc. (''Viacom'') filed a petition pursuant to Title 10 of the *Code of Federal Regulations,* section 2.206. The Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC) issue an order to Westinghouse Electric Company LLC (''Westinghouse''), the holder of

License SNM-770 on the Waltz Mill Service Center near Madison, Pennsylvania, which would require Westinghouse to:

(1) provide certain radiological survey data to NRC that NRC has requested and

(2) accept under SNM-770 certain residual byproduct materials (within the structural material) now held under Viacom License TR-2 and located at the former Westinghouse Test Reactor (WTR) facility at the Waltz Mill Service Center.

As the basis for the request, Viacom states that Westinghouse's refusals to provide the survey data and to accept the residual byproduct materials now held under License TR-2 violates enforceable commitments made to the NRC. Viacom also states that, alternatively, Westinghouse's refusals constitute a violation of 10 C.F.R. § 50.5, *Deliberate misconduct,* which causes Viacom to be in violation of a license condition, the approved Decommissioning Plan (DP) for the WTR. The requests for orders are not based on any imminent health and safety concern at the Waltz Mill Service Center.

In a separate letter dated October 29, 2002, Viacom applied to the NRC to issue two orders, requesting that the NRC: (1) terminate the 10 C.F.R. Part 50 portion of the TR-2 license and (2) declare that all of Viacom's obligations under the DP have been satisfactorily completed, except for submission of the survey data and transfer of the TR-2 residual materials to the SNM-770 license. Although Viacom makes reference to the October 29, 2002, application in the section 2.206 petition, NRC did not consolidate the October 29, 2002, application for orders with the Viacom request for action under 10 C.F.R. § 2.206 because they are requests for actions concerning the Viacom TR-2 license and do not ask for enforcement action under section 2.206 against Westinghouse, the holder of the SNM-770 license.

In a letter dated December 20, 2002, the SNM-770 Licensee, Westinghouse, responded to the October 30, 2002, Viacom section 2.206 petition and the separate Viacom requests for orders dated October 29, 2002.

The Petitioner and the Licensee both participated in a meeting with the NRC's Office of Nuclear Material Safety and Safeguards (NMSS) Petition Review Board (PRB) on February 20, 2003. At this meeting, the Petitioner provided additional information concerning the bases for the petition, and the Licensee provided additional information concerning their response to the petition. The written presentations of the parties, as well as the transcript of this meeting, have been treated as a supplement to the petition and are available in the Agencywide Documents Access and Management System (ADAMS), which provides text and image files of NRC's public documents. These documents may be accessed through the NRC's Public Electronic Reading Room on the

internet at *http://www.nrc.gov/reading-rm.html.* The ADAMS Accession Number for the presentations and the transcript is ML030620600. If you do not have access to ADAMS or there are problems in accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) Reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to *pdr@nrc.gov.*

In a letter dated March 13, 2003, the NRC Staff informed the Petitioner that its request for NRC to issue an order to Westinghouse would be reviewed under section 2.206, and that this review would be conducted by NMSS and the Office of Nuclear Reactor Regulation (NRR).

In a letter dated March 26, 2003, Westinghouse informed the NRC that it would be submitting supplemental information concerning its December 20, 2002, response to the original petition, and that this information would be submitted by May 5, 2003. On March 28, 2003, Viacom submitted an objection to the Commission accepting the supplemental information from Westinghouse and considering it with the petition evaluation. NRC responded to the Westinghouse letter and the Viacom objection in a letter dated April, 14, 2003, asking Westinghouse to submit the supplemental information by April 18, 2003. The Westinghouse supplemental information was received by the NRC on April 14, 2003. Viacom submitted comments on the Westinghouse supplemental information on April 22, 2003. Westinghouse submitted a second supplemental response to the Viacom petition on April 28, 2003.

In a letter dated May 20, 2003, Westinghouse informed the NRC that the data referred to in the first of the requested actions of the Viacom section 2.206 petition was being made available to Viacom on Tuesday, May 27, 2003. Viacom replied to this letter on May 23, 2003, requesting that NRC take note of Westinghouse's continuing refusal to provide the data to NRC.

The NRC sent a copy of the proposed Director's Decision to the Petitioner and to the Licensee for comment on June 18, 2003. The Petitioner and the Licensee responded with comments on July 11, 2003. The comments and the NRC Staff's response to them are included in the Decision.

In its comments submitted on the proposed Director's Decision, Viacom states that the data that are the subject of its first request for an order in the 2.206 petition has been received from Westinghouse, and that it is in the process of reviewing it for completeness, after which it will be given to the NRC. Thus, Viacom states that this aspect of the petition is now moot and need not be addressed by NRC Staff.

II. BACKGROUND

The Waltz Mill Service Center is located approximately 30 miles southeast of Pittsburgh in Westmoreland County, Pennsylvania. The WTR facility is located in

the northwest portion of the Service Center. The WTR was a low-pressure, low-temperature, water-cooled 60-Megawatt reactor housed in a cylindrical vapor containment structure originally licensed to operate by Westinghouse Electric Corporation (''old'' Westinghouse, or WEC) on June 19, 1959, and is maintained under NRC License Number TR-2 pursuant to 10 C.F.R. Parts 30 and 50. The reactor was permanently shut down in 1962. Amendment No. 2 to the TR-2 license, issued March 25, 1963, allows possession of the radioactive materials but not operation of the reactor. Other nuclear material activities take place in the balance of the Waltz Mill Service Center under NRC License Number SNM-770 pursuant to 10 C.F.R. Parts 30, 33, and 70. These activities include the ongoing nuclear services work of Westinghouse, and cleanup of retired facilities and contaminated soils from past work and events.

In 1997, WEC acquired CBS and subsequently changed its name to CBS Corporation, Inc. (CBS). In March 1999, CBS sold the facilities and the activities under the SNM-770 license to British Nuclear Fuels, PLC (BNFL) who established Westinghouse Electric Company LLC (''Westinghouse'') as a subsidiary to run all of BNFL's nuclear-related business units. NRC approved transfer of the SNM-770 license to Westinghouse Electric Company LLC on March 10, 1999, which became effective on March 22, 1999. In May 2000, CBS was merged into Viacom, Inc., and NRC approved this name change on the TR-2 license. So, from issuance in 1959 to March 1999, the TR-2 and SNM-770 licenses were both held by the same Licensee — the ''old'' Westinghouse,'' or WEC, and then CBS. After March 1999, the licenses were held by separate Licensees — the TR-2 license by CBS, now Viacom, Inc., and the SNM-770 license by Westinghouse Electric Company LLC. The ''old'' Westinghouse Electric Corporation, or WEC, that held both licenses at the Waltz Mill Service Center from 1959 to 1999 and the current Westinghouse Electric Company LLC that holds the SNM-770 license are not related.

The NRC identified the Waltz Mill Service Center as a Site Decommissioning Management Plan (SDMP) Site in 1990, requiring it to address remediation of significant contamination in the soils that created the potential for offsite groundwater contamination. In response, the SNM-770 Remediation Plan was submitted November 1996 to address decommissioning of the Waltz Mill Service Center. The Remediation Plan was supplemented with additional information by WEC, and portions of the work in the plan were approved by NRC (in letters from the NRC to WEC, dated March 16, 1998, and August 21, 1998) to allow WEC to begin remediation. Those parts of the Remediation Plan not already approved were approved by NRC, as revised and supplemented, in Amendment #21 to the SNM-770 license on January 19, 2000. The SNM-770 Remediation Plan (at 1-1) states that it is not a decommissioning plan because Westinghouse is not pursuing license termination and will continue to conduct licensed operations at the facility.

WEC submitted a Decommissioning Plan (DP) for the WTR in July 1997. The DP was approved by the NRC in Amendment #8 to the TR-2 license on September 30, 1998, after receiving supplemental information from WEC in March and July 1998. The DP was revised through a 10 C.F.R. § 50.59 change to add a third option for removal of the reactor vessel in January 2000. The DP (at 1-1) states that the TR-2 license will be terminated with the completion of decommissioning work at the WTR and the residual radioactive material will be transferred to the SNM-770 license.

The CBS sale of its nuclear assets to BNFL was pursuant to a 1998 Asset Purchase Agreement (APA). At most sites addressed in the APA, the new Westinghouse Electric Company LLC became the sole licensee after the NRC approved the license transfers. However, at the Waltz Mill Service Center, CBS (now Viacom) agreed to retain the license and to decommission the WTR in accordance with the TR-2 DP as approved by the NRC. The APA includes provisions containing commitments about the Waltz Mill Service Center, namely sections 5.31, 8.1(a), 8.2(x), and 8.8. Section 8.1(a) incorporates the TR-2 DP and the SNM-770 Remediation Plan by reference and section 8.8 commits Westinghouse Electric Company LLC and CBS (now Viacom) to binding arbitration to settle disputes arising under any of the Waltz Mill Service Center decommissioning provisions of the APA, including the two decommissioning plans as approved by NRC. In reviewing the APA leading to NRC's March 10, 1999, approval of the SNM-770 license transfer (*see* Safety Evaluation Report: Application To Transfer and Amend Westinghouse Materials Licenses, Quality Assurance Program Approvals and Certificates of Compliance, dated March 10, 1999), NRC found these provisions about the NRC-approved decommissioning plans to be consistent with NRC regulatory requirements.

Also, as part of the arrangement between Viacom and Westinghouse, the Agreement for Radiological Project Management, Engineering, and Field Services Provided by Westinghouse Electric Company LLC for the Waltz Mill Remediation Project, was signed on March 22, 1999, under which Westinghouse provided project management, engineering, and field services to Viacom to complete the necessary work to decommission the WTR.

Removal of the reactor and internals in accordance with the TR-2 DP (as revised by the section 50.59 process) was completed in May 2000. Viacom requested that Westinghouse accept the residual radioactive material located at the WTR (*see* July 5, 2000, Viacom letter to Westinghouse) and transfer it to the SNM-770 license, as agreed by the parties and approved by the NRC. From this point, disagreement arose and is documented in communications between Viacom and Westinghouse as to whether Viacom has completed its decommissioning responsibilities under the TR-2 license and the APA.

As a result of the disagreement, Westinghouse filed a demand for arbitration on October 2, 2002, in connection with Viacom's refusal to pay Westinghouse

for services and expenses in connection with the Agreement for Radiological Project Management, Engineering, and Field Services Provided by Westinghouse Electric Company LLC for the Waltz Mill Remediation Project (Agreement). The disputed data that are the subject of the Viacom section 2.206 petition were generated under the Agreement. The arbitration demand states that Viacom has refused to pay Westinghouse more than $3 million in connection with work it performed for Viacom under the Agreement. Westinghouse refuses to release the disputed data to Viacom until they are paid. Westinghouse also filed a second demand for arbitration, charging that Viacom has breached its obligations under the APA by failing to implement the remedial measures that are required under the TR-2 DP and the SNM-770 Remediation Plan. The board to decide the arbitration filings has been empaneled and held prehearing conferences with the parties in April 2003. The discovery stage of the dispute resolution process is now ongoing. In a May 20, 2003, letter, Westinghouse informed the NRC that the disputed data are now available to Viacom through discovery. A hearing date for the first of the arbitration filings is set for November 11, 2003.

III. DISCUSSION

The Viacom petition requests that two orders be issued related to the situation at the Waltz Mill Service Center. The requested actions are both based on NRC Inspection Report No. 50-22/1999-202 (IR) transmitted to Viacom on September 6, 2002, that documents the results of NRC inspections of the WTR decommissioning and safety programs. The IR identifies two provisions of the TR-2 DP that still need to be accomplished prior to termination of the TR-2 license, ''determining the residual radioactivity remaining in-situ and preparing the necessary amendments for and requesting the transfer of the remaining residual radioactivity and WTR facilities to the SNM-770 License.'' Viacom also requests, as an alternative, if NRC does not take enforcement action against Westinghouse under either the TR-2 DP or SNM-770, that an order be issued requiring that Westinghouse abate a violation of 10 C.F.R. § 50.5, *Deliberate misconduct,* based on Westinghouse's refusal to turn over the data and accept transfer of the residual radioactive materials. Lastly, Viacom requests the question of the interpretation of the DP and whether they have completed decommissioning of the WTR be resolved by NRC as part of its consideration of Viacom's October 29, 2002, application for orders rather than this 10 C.F.R. § 2.206 petition. The requested actions, the Viacom basis for the requested actions, and the response by the NRC Staff, are as follows.

1. Request for Order Concerning Data

REQUEST: Westinghouse should be required to provide certain radiological survey data that NRC has requested.

BASIS: Viacom states that the time is now ripe under the DP for NRC to be granted access to the completed survey of the TR-2 residual materials based on NRC Inspection Report No. 50-22/1999-202. Viacom cites the special position the NRC is in to assure that its decommissioning requirements are met and seeks to enforce compliance with the DP and NRC regulations.

RESPONSE: As stated in the Introduction, Viacom states that this request for an order is now moot. Accordingly, this request is not discussed.

2. Request for Order Concerning Transfer of Residual Material

REQUEST: Westinghouse should be required to accept under SNM-770 certain residual byproduct materials now held under Viacom License TR-2 and located at the former WTR facility at the Waltz Mill Service Center.

BASIS: Viacom says Westinghouse's refusal to cooperate in the required transfer is contrary to what NRC intended when it approved the TR-2 DP, and should be addressed by NRC taking enforcement action to compel Westinghouse to accept the materials. Also, Viacom states that Westinghouse's current refusals to accept the transfer of the materials are contrary to a solemn commitment it made to NRC in order to obtain a renewed SNM-770 license, because the refusals are contrary to any concept that TR-2 decommissioning will be a priority for the SNM-770 license, as stated in a November 27, 1996, letter to NRC.

RESPONSE: When the NRC approved the TR-2 DP, it expected the residual radioactive material to be transferred to the SNM-770 license and appropriately managed under that license. (*See* Safety Evaluation by the Office of Nuclear Reactor Regulation Supporting Amendment No. 8 to Facility License No. TR-2.) However, as pointed out in the petition, at the time the DP was approved by the NRC, the same entity (Westinghouse Electric Corporation, or WEC) was the NRC licensee under both TR-2 and SNM-770 and so the transfer of the residual radioactive material from one license to another was straightforward. The two licenses are now held by entirely different entities, Viacom and Westinghouse. Their agreement on their respective decommissioning responsibilities at the Waltz Mill Service Center is set forth in the Asset Purchase Agreement (APA). As previously discussed, the dispute resolution process under the APA has commenced with the intended purpose of resolving the commercial dispute between the parties. Viacom stated in its petition, and both parties concurred during the February 20, 2003, meeting with the PRB, that the circumstances at the WTR do not present a threat to the public health and safety or common defense and security. The residual contamination at the WTR is carefully controlled and

will remain so, both in the control of Viacom and within a site controlled by Westinghouse. The dispute resolution process will resolve the parties' dispute as to their respective responsibilities for completing decommissioning of the WTR in accordance with the approved decommissioning plans. Hence, NRC has assurance that its requirements will be met and that the required transfer will take place in due course. NRC retains the final responsibility and authority over the WTR and the Waltz Mill Service Center because it will approve the licensing actions that follow the implementation of the decisions of the arbitration panel.

The NRC does not agree that the actions of Westinghouse concerning the transfer of residual radioactive materials at the WTR are contrary to a commitment Westinghouse made to the NRC in renewing the SNM-770 license that the TR-2 decommissioning will be a priority for the SNM-770 license. The November 27, 1996, letter, included by reference in Table 5.2-1 of the Application for Renewal of USNRC License No. SNM-770, serves to identify specific references as license conditions in the SNM-770 license, namely the June 17, 1996, schedule for remediation of the Waltz Mill Site and the Conceptual Remediation Plan dated September 30, 1996. The November 27, 1996, letter itself contains only a restatement of the priorities and objectives reflected in the references, one of which is to decommission the WTR so that the TR-2 license can be terminated before its expiration date. The June 17, 1996, schedule for remediation provides dates for actions that were forthcoming at that early stage of remediation. This schedule includes the following two milestones:

TR-2 Facilities — TBD

Total Project Completion — Before 11/2003

Section 2.1.3, *Schedule,* of the September 30, 1996, Conceptual Remediation Plan refers to Figure 2-1, the ''Waltz Mill Proposed Remediation Schedule.'' This figure includes a timeline that shows the time period of 1999 through 2003 for WTR License Termination. Section 2.1.3 includes the following paragraph:

> Changes to the schedule may be made at Westinghouse's discretion as a result of annual budget constraints, availability of a radioactive waste burial site, interference with ongoing Waltz Mill operations, ALARA considerations, the potential cross contamination of adjacent facilities, further characterization measurements and/or temporary on-site radioactive waste storage operations.

In issuing a renewed SNM-770 license on June 14, 2002, the NRC accepted the information in the June 17, 1996, letter, the September 30, 1996, Conceptual Remediation Plan, and the November 27, 1996, SNM-770 Remediation Plan statement that completion of the project, to include the decommissioning of the TR-2 facilities before the license expired, remained an *objective* of the SNM-770 Remediation Plan, but that no certain date was implied by any of the

documents. Also, schedule changes under some circumstances at the discretion of the Licensee were also contemplated and approved. Furthermore, the parties chose arbitration to resolve their disputes concerning matters about decommissioning responsibilities at the WTR, such as those now in arbitration.

Thus, at the time of license renewal, it was reasonable for NRC to conclude that the stated objective in the correspondence could still be realized, but also, NRC was well aware of the disagreement over the termination of the TR-2 license (*see, e.g.,* Letter from Viacom to NRC Document Control Center, Mar. 25, 2002). Therefore, it was just as reasonable for NRC to conclude that the termination of the TR-2 license would not be completed by the time the license expired, but NRC found no health and safety or common defense and security issues with the circumstances at the time of license renewal. NRC is satisfied that public health and safety and common defense and security will continue to be protected if there is an extension of the schedule due to the disagreement, and considers it a reasonable justification for such an extension, as contemplated in license renewal, if the arbitration does not result in a resolution of matters in dispute by the time the TR-2 license expires. Hence, NRC does not perceive any actions of Westinghouse to date to be contrary to any expectations of NRC or Westinghouse representations or commitments in renewing the SNM-770 license concerning their commitment in completing the decommissioning of the WTR.

NRC agrees with the Petitioner that acceptance of the TR-2 residual radioactive materials remains an obligation of Westinghouse. Based on information provided in their December 20, 2002, response to the petition and restated at the February 20, 2003, meeting with the PRB, NRC is satisfied that Westinghouse is committed to the decommissioning of the WTR and will meet its obligation to accept the TR-2 residual radioactive materials upon completion of the ongoing arbitration process. NRC does not agree with the Petitioner's arguments made in the February 20, 2003, meeting with the PRB and again in supplemental information that the arbitration will result in an indefinite delay in the decommissioning process. As discussed in the Introduction, the arbitration is underway, and that in accordance with the APA, NRC understands the decision will be binding on *both parties.* Based on information presented at the February 20, 2003, meeting with the PRB, and augmented by the fact that the arbitration process is already in the discovery stage, the NRC does not expect the process to interfere with completion of decommissioning activities at the WTR and license termination ''indefinitely.'' Rather, the NRC expects completion of decommissioning in a timely fashion following the decisions in the arbitration proceedings.

Accordingly, there is no basis to require Westinghouse to accept the residual radioactive materials held under the TR-2 license at this time and the request of the Petitioner is denied.

3. Request for Order To Abate Violation of 10 C.F.R. § 50.5

In the alternative, Viacom states if NRC does not take enforcement action against Westinghouse under either the TR-2 or SNM-770 licenses, that an order be issued requiring Westinghouse abate a violation of 10 C.F.R. § 50.5, *Deliberate misconduct.*

REQUEST: Westinghouse should be required to abate a violation of section 50.5 by accepting transfer of the materials and making the data available to the NRC.

BASIS: Viacom says Westinghouse's refusal to provide the survey data and to cooperate in the transfer of the byproduct material are deliberate; they constitute acts of misconduct that cause Viacom to violate the TR-2 DP, and since the DP is required by NRC rule and constitutes a license condition, Westinghouse's refusals violate 10 C.F.R. § 50.5.

RESPONSE: Section 50.5, *Deliberate misconduct,* says a person may be subject to enforcement action if they engage in deliberate misconduct. Section 50.5(c) states

> For the purposes of paragraph (a)(1) of this section, deliberate misconduct by a person means an intentional act or omission that the person knows:
>
> (1) would cause a licensee or applicant to be in violation of any rule, regulation, or order; or any term, condition, or limitation, of any license issued by the Commission. . . .

As indicated above, the alleged failure of Westinghouse to provide survey data is moot. With respect to Westinghouse's alleged failure to cooperate in the transfer of byproduct material, the NRC Staff's evaluation of Viacom's petition has not identified any violation of TR-2 license conditions, either deliberately by Westinghouse or by Viacom due to actions of Westinghouse.

Additionally, NRC stated in the statement of considerations for 10 C.F.R. § 50.5 (56 Fed. Reg. 40,675) that the ''NRC will take action only in those relatively rare instances where the deliberate misconduct, or deliberate submission of incomplete or inaccurate information raises concerns about the public health and safety. . . .'' Viacom stated in their petition and both parties concurred during the February 20, 2003, meeting with the PRB that the circumstances at the WTR do not present an immediate threat to the public health and safety and that the residual contamination at the WTR is carefully controlled and will remain so.

Therefore, there is no violation of 10 C.F.R. § 50.5, *Deliberate misconduct,* and no basis for enforcement action against Westinghouse. The request of the Petitioner is denied.

4. Request for Interpretation of DP

Viacom states that it is their belief that they have completed decommissioning of the WTR under the TR-2 DP, but Westinghouse has taken the position that Viacom has not completed decommissioning. Among the issues concerning whether Viacom has completed decommissioning is whether the DP requires Viacom to remove the remainder of the WTR biological shield.

REQUEST: NRC should interpret the DP and decide whether Viacom has completed decommissioning of the WTR as part of its consideration of Viacom's October 29, 2002, application for orders rather than this 10 C.F.R. § 2.206 petition.

BASIS: Viacom bases its belief that it has completed decommissioning as detailed in the DP on the statements in NRC Inspection Report No. 50-22/1999-202, which does not bring up the issue of removal of the remainder of the biological shield, and states that this section 2.206 petition and the separate application for orders are premised on this belief. Viacom asks for a determination as to whether they are finished as part of the NRC's response to the October 29, 2002, application. Viacom also has asked for a determination of whether the WTR structures must be decommissioned for unrestricted release promptly after transfer to the SNM-770 license.

RESPONSE: As discussed previously, the section 2.206 petition concerns requests for enforcement action against Westinghouse. The application for orders submitted by Viacom on October 29, 2002, concerns the termination of the TR-2 license. NRC agrees it is more appropriate to consider the question of whether Viacom has completed decommissioning of the WTR in accordance with the approved plans in addressing Viacom's October 29, 2002, application for orders rather than in response to the section 2.206 petition. Therefore, the request of the Petitioner is granted and NRC is responding to the Viacom application for orders in a separate correspondence.

IV. CONCLUSION

We are not addressing the request of the Petitioner to issue an order to Westinghouse, the holder of License SNM-770 on the Waltz Mill Service Center near Madison, PA, which would require Westinghouse to:

(1) provide certain radiological survey data to NRC that NRC has requested. The request is now moot and the NRC is not addressing it further.

We have denied the requests of the Petitioner to issue an order to Westinghouse, the holder of License SNM-770 on the Waltz Mill Service Center near Madison, Pennsylvania, which would require Westinghouse to:

(2) accept under SNM-770 certain residual byproduct materials now held under Viacom License TR-2 and located at the former Westinghouse Test Reactor (WTR) facility at the Waltz Mill Site.

We have also denied the request of the Petitioner to:

(3) issue an order to Westinghouse to abate a violation of 10 C.F.R. § 50.5, *Deliberate misconduct,* by accepting the residual byproduct materials now held under Viacom License TR-2 at the WTR and producing the survey data.

We have granted the request of the Petitioner to:

(4) consider the issue of the interpretation of the DP and whether Viacom has completed decommissioning of the WTR in addressing Viacom's October 29, 2002, application for orders rather than this 10 C.F.R. § 2.206 petition. NRC is responding to the October 29, 2002, Viacom application for orders in a separate correspondence.

As provided in 10 C.F.R. § 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the Decision will constitute the final action of the Commission 25 days after the date of the Decision unless the Commission, on its own motion, institutes a review of the Decision within that time.

M. Federline for
Martin J. Virgilio, Director
Office of Nuclear Material Safety
and Safeguards

Dated at Rockville, Maryland,
this 26th day of August 2003.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket Nos. 50-275-LT**
50-323-LT

PACIFIC GAS AND ELECTRIC COMPANY
(Diablo Canyon Nuclear Power Plant, Units 1 and 2)

September 8, 2003

This proceeding concerns the request of San Luis Obispo County and the California Public Utilities Commission to stay the effect of an NRC Staff license transfer order and the request of Pacific Gas and Electric Company, the Licensee, to hold the already closed adjudicatory proceeding in abeyance. The Commission grants the motion to hold the proceeding in abeyance.

LICENSE TRANSFER: ABEYANCE OF PROCEEDING

RULES OF PRACTICE: ABEYANCE OF PROCEEDING

Where, as here, the Commission is asked to postpone a decision in order to accommodate a possible settlement, we ordinarily will grant the request, absent harm to third parties or to the public interest.

MEMORANDUM AND ORDER

On June 2, 2003, the California Public Utilities Commission (CPUC) and San Luis Obispo County asked the Commission to stay the effect of an NRC Staff

order issued on May 27, 2003. The Staff order approved the transfer of licenses for the two-unit Diablo Canyon Nuclear Power Plant. Pacific Gas and Electric Company (PG&E), the Licensee for the Diablo Canyon facilities, opposes the stay application, but requests that we hold the proceeding in abeyance in light of a tentative settlement of a related bankruptcy proceeding. CPUC supports the abeyance request. The County opposes it and continues to demand a stay of the license transfer order. In view of the tentative bankruptcy settlement, we have decided to hold the stay application in abeyance, as requested by PG&E.

This proceeding involves PG&E's application for authorization to transfer its licenses for Diablo Canyon in connection with a comprehensive Plan of Reorganization which PG&E filed under Chapter 11 of the United States Bankruptcy Code. In response to the *Federal Register* notice of PG&E's license transfer application,[1] we received five petitions to intervene and requests for hearing. The Petitioners included CPUC and the County. On June 25, 2002, we issued an order denying the intervention petitions of CPUC and the County (and a third petitioner) but granting them ''governmental participant'' status (entitling them to participate in the proceeding if, but only if, we were subsequently to grant a hearing to another petitioner).[2] On February 14, 2003, we issued a second decision denying the remaining petitions to intervene and terminating the proceeding.[3] A few months later the NRC Staff issued an order approving the license transfer application, albeit with conditions.[4] As noted above, CPUC and the County sought to stay the effectiveness of the Staff order.

Subsequently, CPUC and PG&E announced a tentative settlement agreement between them on bankruptcy-related matters. The proposed bankruptcy settlement requires satisfaction of a number of conditions, but if consummated, the settlement would eliminate the need for the Diablo Canyon license transfer. PG&E, with CPUC's support, requests the Commission to hold the remaining aspects of this license transfer proceeding in abeyance.[5] The County, however, opposes abeyance and renews its application for a stay of the Staff's transfer order.

The County's continued demand for a stay notwithstanding, we see no reason not to grant the request of the chief bankruptcy contestants, PG&E and CPUC,

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[1] *See* 67 Fed. Reg. 2455 (Jan. 17, 2002).

[2] CLI-02-16, 55 NRC 317, 345, 349 (2002), *petition for judicial review pending,* No. 02-72735 (9th Cir.).

[3] CLI-03-2, 57 NRC 19 (2003), *petition for judicial review pending,* No. 03-1038 (D.C. Cir.).

[4] *See* Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2); Order Approving Transfer of Licenses and Conforming Amendments, 68 Fed. Reg. 33,208 (June 3, 2003), announcing Staff order dated May 27, 2003.

[5] Only the stay application and the motion to hold it in abeyance are on our docket at this time. As recounted in the text, earlier this year the Commission terminated the adjudication, and the NRC Staff issued an order approving the license transfer.

that we take no further action during the pendency of their tentative settlement. Notably, both courts of appeals currently considering challenges to NRC decisions on the Diablo Canyon license transfer have issued orders holding judicial proceedings in abeyance to await further action on the potential settlement.[6] Neither those judicial abeyance orders nor our decision today to issue our own abeyance order will cause any conceivable harm to the County. The fact is that the NRC Staff's approval of the Diablo Canyon license transfer has no immediate effect on anyone, including the County, because the Staff approval cannot be implemented absent (among other things) bankruptcy court approval of the transfer.

The law favors settlements. Where, as here, we are asked to postpone a decision in order to accommodate a possible settlement, we ordinarily will grant the request, absent harm to third parties or to the public interest. As noted above, neither the County nor anyone else requires an immediate Commission decision on whether to stay the NRC Staff's license transfer order because, in practical terms, that order has no current effect. Indeed, if the currently contemplated settlement is consummated, the license transfer controversy will be rendered moot, and neither the Commission nor the reviewing courts will have to consider the matter further.

For the foregoing reasons, we *grant* PG&E's motion to hold the proceeding (i.e., the stay application) in abeyance. We also *direct* PG&E to notify us immediately upon final approval or rejection of the tentative settlement agreement. If appropriate, we will reactivate consideration of the stay application at that time.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 8th day of September 2003.

[6] *California Public Utility Commission v. NRC,* No. 02-72735 (9th Cir., abeyance order entered July 28, 2003); *Northern California Power Agency v. NRC* (D.C. Cir., abeyance order entered Aug. 1, 2003).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of	**Docket Nos. 50-369-LR** **50-370-LR** **50-413-LR** **50-414-LR**
DUKE ENERGY CORPORATION **(McGuire Nuclear Station, Units 1 and 2;** **Catawba Nuclear Station, Units 1** **and 2)**	**September 8, 2003**

The Commission directs the Atomic Safety and Licensing Board to inform the Commission when it expects to issue a decision on the remaining contentions in this proceeding, and to explain the reasons the proceeding has been delayed. The Commission emphasizes the need to avoid unnecessary delay in the adjudicatory process.

MEMORANDUM AND ORDER

In 1998, the Commission issued a *Statement of Policy on Conduct of Adjudicatory Proceedings,* reemphasizing the need for a disciplined hearing process.[1] As we noted in our policy statement, the Commission expects that in the next few years a number of lengthy and complex adjudicatory proceedings may be insti-

[1] *Statement of Policy on Conduct of Adjudicatory Proceedings,* CLI-98-12, 48 NRC 18 (1998); 63 Fed. Reg. 41,872 (Aug. 5, 1998).

tuted. These may include an expected application to license the Yucca Mountain high-level waste depository, and further applications to transfer, or, as in this case, to renew reactor operating licenses. Indeed, a ''leading consideration[ ]'' of our policy statement was the necessity of managing license renewal proceedings in a fair and efficient way, given the potential for ''large number[s] of utilities to seek license renewal soon.''[2] Faced with limited adjudicatory resources, the Commission cannot overemphasize the need to avoid unnecessary delay in our adjudicatory process.

The Commission therefore has emphasized that licensing boards must ''establish schedules for promptly deciding the issues before them,'' must issue ''timely rulings on prehearing matters,'' and, in short, must ''ensure a prompt yet fair resolution of contested issues.''[3] Not all proceedings, however, including this one, have moved forward as expeditiously as we had intended.

At the very outset of this proceeding, as in all other license renewal proceedings, the Commission called upon the Licensing Board to fairly, promptly, and efficiently resolve contested issues.[4] The Commission's goal in contested license renewal cases is the ''issuance of a Commission decision on the pending application in about 2 1/2 years from the date that the application was received.''[5] To that end, we directed the Board to achieve particular milestones. Among these milestones was a Licensing Board decision on late-filed contentions ''[w]ithin *50 days* of the issuance of [the] final SER [Safety Evaluation Report] and FES [Final Environmental Statement].''[6] In this case, the NRC Staff published the final environmental impact statements for the Catawba and McGuire nuclear stations in December 2002.[7] The Staff completed and served the SER in January 2003.[8]

Obviously, many months have passed after the issuance of the FEIS and SER. Given when the FES and SER became available, and the Commission's clear expectation that license renewal cases would be decided expeditiously,

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[2] *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 339 (1998).

[3] *See Policy Statement,* 48 NRC at 19-20; *see also Calvert Cliffs,* 48 NRC at 339-40.

[4] *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 215 (2001).

[5] *Id.* at 214.

[6] *Id.* at 215 (emphasis in original).

[7] *See* NUREG-1437, ''Generic Environmental Impact Statement for License Renewal of Nuclear Plants,'' Suppl. 8 (Regarding McGuire Nuclear Station, Units 1 & 2) (Dec. 2002); NUREG-1437, ''Generic Environmental Impact Statement for License Renewal of Nuclear Plants,'' Suppl. 9 (Regarding Catawba Nuclear Station, Units 1 & 2) (Dec. 2002).

[8] The SER was formally published in March 2003, but nonetheless was completed and served upon the Board and parties in January. *See* Letter from Susan L. Uttal, NRC Staff, to Administrative Judges (Jan. 10, 2003); Letter from Susan L. Uttal, NRC Staff, to Administrative Judges (Jan. 14, 2003).

it is unclear why threshold decisions on the admissibility (and mootness) of contentions remain pending in this case.

It has been nearly 9 months since the Commission remanded to the Board three questions related to the Intervenors' original and amended ''SAMA'' contention:[9]

1. whether the draft SEISs render the original SAMA contention moot, which the Commission itself stressed ''appears to be the case.''[10]
2. whether the Intervenors' amended [SAMA] contention raises timely, adequately supported, and otherwise admissible genuine material disputes for litigation; and
3. whether there is any basis for the Intervenors' demand for access to Duke's PRA [probabilistic risk assessment] analysis.

The Commission expected that these questions could be resolved without extensive deliberation or delay, and indeed our decision provided extensive guidance to the Board. In addition, on April 11, 2003, the Intervenors requested reinstatement of a previously dismissed contention on the environmental impacts of using Mixed Oxide (''MOX'') fuel.[11] The reinstatement question, too, remains undecided.

We therefore direct the Board to inform the Commission when it expects to issue a decision on the remaining contentions, to provide the Commission with an explanation of the reasons for the delay thus far, and to explain the measures the Board will take to restore the proceeding to the original schedule reflected in the Commission's order, CLI-01-20, 54 NRC at 215-16. The Board should provide this information within 3 business days.

It is so ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 8th day of September 2003.

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[9] *See* CLI-02-28, 56 NRC 373, 388 (2002). The acronym ''SAMA'' refers to ''Severe Accident Mitigation Alternatives.''

[10] *Id.* at 378.

[11] *See* CLI-02-14, 55 NRC 278, 294-97 (2002).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman
Dr. Charles N. Kelber
Dr. Peter S. Lam

In the Matter of **Docket No. 30-35594-CivP**
(ASLBP No. 03-811-02-CivP)
(EA 02-072)
(Order Imposing
Civil Monetary Penalty)

ADVANCED MEDICAL IMAGING
AND NUCLEAR SERVICES
(Easton, PA) **September 22, 2003**

MEMORANDUM AND ORDER
(Approving Settlement Agreement and Terminating Proceeding)

Before us is the joint motion of the NRC Staff and Advanced Medical Imaging and Nuclear Services (Advanced Medical) for approval of a proffered settlement agreement in this civil penalty proceeding. Advanced Medical is the holder of NRC Byproduct Materials License No. 37-30603-01 issued pursuant to 10 C.F.R. Parts 30 and 35 authorizing the Licensee to possess and use certain byproduct materials at its Easton, Pennsylvania facility for various medical uptake, excretion, imaging, and localization procedures. The proceeding stems from the Staff's issuance of an order imposing a civil penalty on Advanced Medical in the amount of $43,200 for alleged violations of provisions of its license and the Commission's regulations. *See* 68 Fed. Reg. 10,049 (Mar. 3, 2003).

Under the proposed settlement, Advanced Medical agrees to pay a civil penalty in the amount of $27,500 within 30 days of the Board's approval of the settlement agreement. Additionally, the agreement states, *inter alia,* that:

(1) Advanced Medical's use of byproduct material from June 2001 to November 30, 2001, for patient diagnosis was not in accordance with a specific license and not under the supervision of an authorized user in violation of 10 C.F.R. § 35.11;

(2) Advanced Medical's records of radioactive materials ordered between March 2001 and November 2001 were not complete and accurate in all material respects in violation of 10 C.F.R. § 30.9 and condition 15.A and Item 10 of Attachment 10.6 of its license;

(3) Advanced Medical's conduct of licensed activities, including ordering and administering radiopharmaceuticals from March 2001 to November 30, 2001, was done without having appointed a radiation safety officer;

(4) Advanced Medical's actions, in and of themselves, did not have any safety consequences and the NRC Staff has determined that Advanced Medical has taken appropriate corrective actions.

Finally, the settlement agreement states, in effect, that the Staff and Advanced Medical have agreed to disagree on the questions whether Advanced Medical's conduct was deliberate and willful and warrants a Severity Level II classification.

The Commission looks with favor upon settlements. *See, e.g.,* 10 C.F.R. § 2.759; *North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-28, 50 NRC 291, 293 (1999). In approving a proposed settlement, the Licensing Board is required to ''give due consideration to the public interest.'' *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 71 (1994); *see* 10 C.F.R. § 2.203; *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 205 (1997). Here, the parties' proposed settlement agreement appears to be in accord with the public interest and there appears to be no reason why it should not be approved. Accordingly, the Board approves the settlement agreement (ADAMS ML 032481131), incorporates it into this Order as if set forth verbatim, and terminates this civil penalty proceeding.

It is so ORDERED.

FOR THE ATOMIC SAFETY
AND LICENSING BOARD[1]

Thomas S. Moore, Chairman
ADMINISTRATIVE JUDGE

Charles N. Kelber
ADMINISTRATIVE JUDGE

Peter S. Lam
ADMINISTRATIVE JUDGE

Rockville, Maryland
September 22, 2003

[1] Copies of this Order were sent this date by Internet electronic mail transmission to the counsel for Advanced Medical and the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael C. Farrar, Presiding Officer
Dr. Charles N. Kelber, Special Assistant

In the Matter of **Docket No. 30-36239-ML**
(ASLBP No. 03-814-01-ML)
(Materials License)

CFC LOGISTICS, INC. **September 23, 2003**

RULES OF PRACTICE: STAY OF AGENCY ACTION (CRITERIA)

In ruling upon a stay request, the decisionmaker weighs the same four factors as those classically applied in judicial proceedings: (1) the extent of the probability that the moving party will succeed on the merits; (2) whether the moving party will suffer irreparable injury, and if so, to what extent, if the stay is not granted; (3) the extent of the injury the party opposing the stay will suffer if the stay is granted; and (4) where the public interest lies. 10 C.F.R. § 2.788(e); *see also Virginia Petroleum Jobbers Ass'n v. FPC,* 259 F.2d 921, 925 (D.C. Cir. 1958).

Although all four factors are to be weighed in the balance, the first two are generally considered the more important, and the moving party has the burden of demonstrating that they weigh in its favor. The greater the showing on one of the factors, the less may have to be demonstrated on the other. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-338, 4 NRC 10, 14 (1976); *Cuomo v. NRC,* 772 F.2d 972, 974 (D.C. Cir. 1985).

RULES OF PRACTICE: STAY OF AGENCY ACTION (IRREPARABLE INJURY)

Where Petitioners' claims of irreparable injury rest on speculation and are unsupported by prior accidents or by presenting substantial chains of causation, there is no ''increased imminent risk'' that would establish a significant likelihood of irreparable injury. *Compare State of Ohio ex rel. Celebrezze v. NRC,* 812 F.2d 288 (1987).

RULES OF PRACTICE: STAY OF AGENCY ACTION (INJURY TO OPPOSING PARTY)

Where the opposing party's representations are insufficiently specific about lost time and opportunity, they leave too much to speculation to be given much weight in the four-factor balance.

MEMORANDUM AND ORDER

(Ruling on Petitioners' Motion To Stay License Effectiveness)

On the evening of September 10, we heard several hours of oral argument from counsel on the motion of Petitioners (certain named residents of Milford Township[1]) for a stay of the effectiveness of the license the NRC Staff had recently issued to CFC Logistics to operate a cobalt-60 irradiator at the company's food processing warehouse in Quakertown, Pennsylvania.[2] The need to address the stay motion arose from the Company's then-stated plans to begin receiving the cobalt-60 sources at the facility (where the irradiator has already been constructed) the week of Monday, September 22.[3]

For the reasons stated herein, we DENY the stay, without prejudice to its renewal as to future shipments if circumstances change. Further, should we later grant the Petitioners' hearing request (*see* note 2), they will be free to renew their

[1] Although for purposes of appearing in other venues the facility's opponents have apparently coalesced in an organization called ''Concerned Citizens of Milford Township'' (CCMT), that group as such has not yet sought to appear before us.

[2] As indicated in our previous orders and in the handout we made available to the public at the oral argument (a copy of which appears at the end of this Memorandum), counsel also argued the questions of (1) the standing of the Petitioners and (2) the germaneness of the ''areas of concern'' upon which Petitioners base their request for a hearing on the merits of the company's application/license. We will address those questions at a later time. For now, we can put them aside (*see* pp. 141, 144, below).

[3] *See* Aug. 26 Tr. at 16. *But see* last sentence of note 20, below, regarding a shipping delay.

stay motion or to seek other remedial action at the time they file their written evidence.

A. Background

In view of the urgency of this matter, we will not pause to provide the full background that led to this stage. Instead, we focus briefly on only the following.

CFC Logistics filed its application for an NRC materials license on February 25, 2003. At that point, the NRC Staff, before whom the application was pending, elected not to issue a formal notice of opportunity for hearing.[4] Thus, the time for filing a petition for a hearing on the merits of the application did not begin to run until Petitioners received actual notice of the application's pendency. As it turned out, the Petitioners filed their first hearing request on June 23, 2003.

After this tribunal was established on July 14, the NRC Staff — as is its right under 10 C.F.R. § 2.1213 — informed us by a July 24 letter that it elected not to participate in the proceeding. Notwithstanding that election, we directed the Staff to participate — as that same provision authorizes us to do — ''at least to [the] extent'' of the ''resolution of the preliminary issues . . . .'' July 31 Order, at 1-2.

At the outset, there were a number of disparate filings, with CFC Logistics responding to the petition and to various other filings Petitioners made, all of which need not be recounted here. To bring some focus to the proceeding, we directed the Petitioners to file a document indicating the respective distances the several Petitioners live from the facility and then to restate the ''areas of concern'' upon which they based their request for hearing. *See* Aug. 13 Prehearing Order at 2.

In that same Order, we called for the NRC Staff to respond to the filings the Petitioners were about to make by briefing the issues of Petitioners' standing and the ''germaneness'' to the proceeding of the areas of concern Petitioners sought to raise.[5] The Company and the Petitioners were then to respond to the Staff brief, so that all issues would be properly joined.

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[4] When asked later about the basis for this determination, counsel replied that the Staff handles ''many thousands'' of materials license applications annually and its practice is not to issue formal notices of hearing on them (Aug. 7 Tr. at 25-26) [the numbering of both the August 7 and August 26 Transcripts began with page 1; thereafter, page numbering of new transcripts took up where the previous one had ended]. As we understand it, however, only a minuscule proportion of those thousands of applications involves proposed irradiators or other devices involving similar radioactive potency.

[5] In that regard, we had indicated in the first telephonic prehearing conference our intense interest, as far as the issue of standing was concerned, in whether this irradiator fit within the NRC jurisprudence about ''a significant source of radioactivity producing obvious potential for offsite consequences.''

(Continued)

Responding to increasing interest in the local community, the Staff eventually determined to hold a public meeting on the evening of Thursday, August 21, to receive the public's comments and concerns. According to an unofficial transcript later supplied us by Petitioners,[6] the Staff began the meeting by indicating that once the public's remarks on the Company's application were listened to and reported back, the license would be issued ''in the next few days.'' Later portions of that transcript, confirmed by contemporaneous news reports,[7] indicated that that announcement did not sit well with the audience.

This disclosure prompted the Petitioners to file the next day a request that we stay the issuance of the license. This prompted a flurry of rulings and a conference call (*see* Aug. 26 Tr. at 7) during which we denied the stay request — which did not expressly address the ''four factors'' that govern decisions on stays (*see* p. 140, below) — as premature, without prejudice to its later renewal. *See* Aug. 27 Further Scheduling Order.

As had been projected during the conference call (Aug. 26 Tr. at 8), the Staff issued the license the next day, August 27, and the Petitioners renewed their stay motion on September 4. For our part (*see* Aug. 27 Further Scheduling Order and Sept. 3 Prehearing Order), we called for rapid replies and included the stay motion on the September 10 oral argument agenda.

A day after issuing the license, the NRC Staff also issued a separate order regarding the facility security plan, imposing a standard upgrade required of all licensees; pursuant to a Commission directive, the Staff informed the Company that the upgrade would not have to be in place until December 3, 2003 (*see* Sept. 5 Notification to Board and accompanying documents). At the oral argument, in response to the Company's assertion that it nonetheless intended to have the upgraded security plan in place by Friday, September 12, we asked the Staff if it would be able — in light of the pendency of the stay request and the focus being placed on the security plan for that purpose — to conduct a rapid inspection to

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Aug. 7 Tr. at 33-34, 36, 74-75, 79-81. Accordingly, in our August 13 Order directing the NRC Staff to file a brief on the questions of standing and germaneness, we indicated that brief should:

> pay particular attention to the question the parties have raised as to whether, for standing purposes, the radioactive source is to be considered in the shielded position it would occupy in the irradiator or, as the Applicant characterized the opposing viewpoint, in unshielded ''isolation'' (*see* Tr. at 74-75, 79-81), and . . . then provide the Staff's view on whether, applying the standards the Staff believes appropriate, the Petitioners have standing . . . .

In our estimation, the Staff brief left some matters open (Tr. at 92-93; *see also id.* at 114-18), prompting us to call for a supplemental brief (*see* Sept. 3 Prehearing Order), which left us unclear as to an aspect of the Staff's position on this matter (*see* Tr. at 127).

[6] According to her declaration, Kimberly Haymans-Geisler, a member of CCMT and an attendee at the meeting, prepared that partial transcript from a videotape provided to her.

[7] *See, e.g.,* Greg Coffey, ''Irradiator Approved,'' *The Intelligencer* [phillyBurbs Internet ed.] (Aug. 22, 2003).

confirm that the Company had indeed done what it had pledged (Tr. at 247-52). The Staff demurred on making any commitment at that point (Tr. 252).

At the end of the argument, we gave the parties 2 days to supply us with any factual information they had been unable to provide at the argument (Tr. at 266). In view of the lateness of the hour and the travel contingencies facing the Company's counsel (discussed during the brief recess reflected at Tr. 224, lines 8-9), we did not pause to recount with the parties what those areas might include. One area on which we expected more information, however, concerned the number and size of existing licensed irradiators, upon which there had been conflicting reports (*compare, e.g.,* Sept. 9 Stein Affidavit ¶ 13 with Tr. at 144-45).

Rather than supply that information, however, the Staff favored us with a September 12 letter brief advising us, in effect, that (1) the Staff could not conduct an inspection of *this* facility until it completed a manual on how to inspect *all* facilities; and (2) in any event, we have no jurisdiction to direct the Staff to conduct an inspection. As we see it, the portion of the letter asserting we lacked jurisdiction answered a question not asked and addressed a matter not in issue.[8]

B. Criteria for Granting a Stay

Under the NRC's Rules of Practice, 10 C.F.R. § 2.788(e), the criteria for ruling upon a stay request involve the same four factors as those classically applied in judicial proceedings. *See Virginia Petroleum Jobbers Ass'n v. FPC,* 259 F.2d 921, 925 (D.C. Cir. 1958). Thus, the decisionmaker must consider (1) the extent of the probability that the moving party will succeed on the merits; (2) whether the moving party will suffer irreparable injury, and if so to what extent, if the stay is *not* granted; (3) the extent of the injury the party opposing the stay will suffer if the stay *is* granted; and (4) where the public interest lies.

Although all four factors are to be weighed in the balance, the first two — probability of success on the merits and extent of irreparable injury — are generally considered the more important, and the moving party has the burden of demonstrating that they weigh in its favor. The greater the showing on one of the factors, the less may have to be demonstrated on the other. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-338, 4 NRC 10, 14 (1976); *Cuomo v. NRC,* 772 F.2d 972, 974 (D.C. Cir. 1985). Indeed, ''[i]t reasonably follows that one who establishes *no* amount of irreparable injury is

[8] Specifically, we had not said anything that reflected an intention to *direct* the Staff to conduct an inspection. We had merely asked, in the context of a stay request in which the status of the Company's Commission-required anti-terrorist plans was being made a major issue, whether the Staff would be *able* to conduct an early inspection to confirm the Company's having taken action to comply — 3 months early — with a new NRC requirement. *See* Tr. at 247-52, 266-67. On that score, the Company invited an early Staff inspection (Tr. at 263-64).

not entitled to a stay in the absence of a showing that a reversal of the decision under attack is not merely likely, but a virtual certainty.'' *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 746 n.8 (1985). In the final analysis, then, the irreparable injury criterion ''commands our attention first because it is 'often the most important in determining the need for a stay.' '' *Id.* at 746 & n.7, quoting from cases there cited.

In light of the attention this matter has received in the community, we should point out that, as to the fourth factor — relating to the ''public interest'' — what is being weighed is not the position being taken by members of the ''interested public.'' Rather, this factor looks to whether there are public policies or values, distinct from the private interests bound up in the other three factors, that would be served, on the one hand, by a grant of the stay or, on the other, by its denial.

C. Application of the ''Four-Factor'' Stay Criteria to this Proceeding

The early portions of the September 10 oral argument dealt with the questions of the Petitioners' standing to seek a hearing on the merits of the CFC application/license and the germaneness of the ''areas of concern'' that reflect the challenges they wish to bring. We will address those matters in a later opinion, which we expect to issue by mid-October. For purposes of ruling on the stay motion, we will assume that at least some of the Petitioners do indeed have standing,[9] and that at least some of their areas of concern are germane and thus can be the subject of the hearing.[10]

Taking our cue from the Appeal Board's decision in *Perry,* above, we address the irreparable injury factor first. For, as has been seen, the determination we make on that factor will influence the role the others play.

1. Irreparable Injury to Petitioners

In their brief and at oral argument (Tr. at 227-28), Petitioners placed considerable reliance on the decision of the United States Court of Appeals for the Sixth Circuit in *State of Ohio ex rel. Celebrezze v. NRC,* 812 F.2d 288 (1987), for the proposition that ''increased imminent risk'' can constitute irreparable injury. We think that decision will not, in the circumstances before us, bear the weight

[9] The NRC Staff supported the Petitioners' claim to have standing, but on theories that required further explanation (*see* Company Sept. 5 Brief, Section II.A, and Tr. at 127, 128-29).

[10] The Petitioners presented some sixteen areas of concern, all of which the Company argued were not germane but seven of which the NRC Staff argued were legitimate subjects for hearing.

Petitioners attempt to place upon it here, given the nature of the risks they describe (see Subsection 2, below).

In *Celebrezze,* the State argued that the NRC should be prohibited from issuing a full-power operating license to the Perry Nuclear Plant until an ''adequate offsite emergency evacuation plan'' was developed. 812 F.2d at 291. Finding that the State had ''demonstrated a sufficient probability of success on the merits,'' the Sixth Circuit indicated that to substantiate an irreparable injury claim, a movant ''must provide some evidence that the harm has occurred in the past and is likely to occur again.'' *Id.* at 290, 291. On that score, the Court of Appeals found the then-recent accident at Chernobyl instructive and held that, in light of the situation that occurred there, ''it would be unconscionable to allow the full power license to issue absent adequate emergency preparedness plans.'' *Id.* at 291. The Court of Appeals concluded that while ''it is difficult to visualize particular scenarios, . . . when dealing with a force as powerful as nuclear energy every effort should be made to minimize risks.'' *Id.*

We think the Sixth Circuit's rationale there to be inapplicable here on several grounds. As that Court stressed, there is an ''inversely proportional'' relationship between the strength of the ''probability of success'' showing and the ''irreparable injury'' showing. 812 F.2d at 290. With respect to the merits, the Court detailed the efforts the State had made in withdrawing from, and providing a critique of, the emergency evacuation plan, and commented favorably upon the ''findings which articulated the plan's deficiencies'' made by an Ohio ''cabinet-level task force,'' all as brought to the Court's attention through the lengthy affidavit of that Task Force's chairman. *Id.* at 291.

In other words, the Sixth Circuit believed the State had made out a strong case of probability of success on the merits and, under the Court's classic reasoning, the irreparable injury showing could be correspondingly less. In contrast, without unduly minimizing the nature of the concerns Petitioners are bringing before us here, the matters they have presented thus far do not create such a strong showing as to probability of success (*see* pp. 144-46, below), so their irreparable injury showing must be correspondingly greater.

On the subject of irreparable injury, the Sixth Circuit seemingly put great weight on the *existence of a prior accident* (Chernobyl) and ''a force as powerful as nuclear energy.'' 821 F.2d at 291. In the matter before us, however, where a stronger irreparable injury showing is needed, there has been *no showing of prior accidents* — indeed, the suggestion is that, as to a key accident scenario, there have been no ''cask drop'' accidents at any irradiator (Tr. 259-60, 262) — and no definitive indication (as opposed to informed speculation) of why such an accident should, for purposes of a stay, be anticipated. And in terms of the forces at work, the presence of cobalt-60 in an irradiator, while of legitimate and expressed concern to the surrounding residents, cannot fairly be compared to the

concern the Sixth Circuit expressed about ''a force as powerful'' as a nuclear plant operating at full power.

We need add only a comment on the Company's post-argument suggestion that we cannot inquire, at any hearing on the merits of the matters before us in *this* proceeding, into the issue of the Company's compliance with the latest Commission directive on security plans, an issue the Company and the Staff say would have to involve a *separate* proceeding. Whatever the legitimacy of that suggestion *as far as a merits hearing goes,*[11] we believe — but need not decide here — that *for purposes of an ''irreparable injury'' determination,* it is legitimate for Petitioners to attempt to put forward a showing of terrorist-related consequences attributed to deficiencies in compliance with the Commission's security directives. But that showing falls short of being convincing here, because the Company has, for purposes of the stay motion, countered the Petitioners' showing by its representation — albeit unfortunately left unconfirmed by the Staff[12] — that its full-scale plan will be in place before any cobalt-60 reaches the site (*see* Exhibit B to the Company's Sept. 9 Response to the stay motion).

None of the Petitioners' other claims of irreparable injury goes beyond speculation as to accidents that might happen, unsupported by recounting past events at irradiators or by presenting substantial chains of causation.[13] Although an eventual hearing on the merits may demonstrate safety deficiencies, the totality of the Petitioners' showing thus far — including the matters they presented that we discuss in Subsection 2, below — does not establish any significant likelihood of irreparable injury from ''increased imminent risk'' (Tr. at 228) of the type the Sixth Circuit thought confronted it. Accordingly, we cannot weigh this factor in Petitioners' favor.[14]

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[11] Whether the merits of that issue may be heard in this proceeding is not a matter that need be dealt with herein. We will turn to it later, in our upcoming decision on standing and germaneness.

[12] In different circumstances or in a closer case, the absence of Staff confirmation could well throw the balance of stay considerations the other way.

[13] Of course, the Petitioners' efforts were hampered, or at least delayed, by their lack of ready access to key documents (*see, e.g.,* Aug. 26 Tr. at 16-29), a problem on which we have already — and unexpectedly (*see* Aug. 7 Tr. at 24, 75-76, 83-84; Aug. 21 Scheduling Order; Aug. 26 Tr. at 13-15) — had to intervene on several occasions despite the experienced counsel involved. *We do not expect to have to do so unnecessarily again* (*see* Aug. 26 Tr. at 86).

[14] To be sure, in an earlier proceeding the manufacturer of this irradiator — faced with an assertion by the NRC Staff that its plans to use cesium-137 (in the form of cesium chloride ''caked powder'') as a radioactive source (in a different irradiator) were deficient because cobalt was safer — argued that cobalt had a number of deficiencies of its own. *In the Matter of GrayStar, Inc.* (Suite 103, 200 Valley Road, Mt. Arlington, NJ 07856), LBP-01-7, 53 NRC 168, 172, 188-89 (2001). Upon examination, those stated deficiencies appear less to create safety consequences for nearby residents than to detract from operating efficiency, and thus do not bolster Petitioners' irreparable injury case to any substantial degree (*see also* Tr. at 157-58; *cf.* Tr. at 188-92).

2. Probability of Success on the Merits

Against this background of a minimal showing on the irreparable injury factor, the Petitioners would have to show, as the Sixth Circuit made clear, a correspondingly higher probability of success on the merits in order to prevail in the weighing of the four factors. We turn now to an analysis of whether such success has been demonstrated.

As indicated above, we are assuming, for purposes of this stay motion, that at least some of the Petitioners will be found to have standing and that at least some of their ''areas of concern'' will be found germane. If that transpires, a hearing on those concerns, involving written presentations at the outset, will take place.[15]

Of course, the ''probability of success on the merits'' factor, insofar as relevant to stay motions, does not go to whether Petitioners will succeed *in obtaining a hearing*. Rather, it goes to whether at such a hearing they will succeed, with regard to one or more of the concerns they have raised, *in demonstrating a safety deficiency* in the irradiator itself, or in the Company's compliance with the standards governing the irradiator, that would lead us to invalidate, or to condition, the license the Staff awarded.

As indicated above, the Petitioners have pointed to some sixteen concerns they say justify a hearing. In presenting their written arguments in support of a stay, they focused on five key concerns: (1) the inadequacy of security measures; (2) the risk of accidental dispersion of radioactive material in air and water during loading, unloading, and transportation; (3) the absence of emergency procedures for dealing with a prolonged loss of electricity or for the range of accidents that could be caused by such a loss; (4) the absence of emergency procedures for accidents involving a break in the compressed-air line; and (5) the inadequacy of the $75,000 bond to cover post-accident cleanup costs. At oral argument, they placed primary emphasis on the first four items (Tr. at 228, 237, 240, 241-42).

We discuss each of those concerns below. Before doing so, we stress that the burden to show that an area of concern is germane — and thus can *trigger a hearing* — is a relatively light one. 10 C.F.R. § 2.1205(e)(3), (h). In contrast, the burden to demonstrate ''probability of success'' on the merits — and thus to *obtain a stay* — is a much heavier one (*see* 10 C.F.R. § 2.788(e) and pp. 140-41, above).

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[15] How soon such a hearing would take place remains to be seen. Because the NRC Staff did not publish a notice of hearing at the outset (*see* p. 138, above), the Rules of Practice governing materials licenses would, if our ruling is in favor of Petitioners' intervention, require us to issue a notice of hearing providing 30 days for prospective additional intervenors to file petitions. *See* 10 C.F.R. § 2.1205(d)(2)(i), (j), (k). It also remains to be seen whether in that circumstance it would be permissible — while awaiting responses to that notice from potential new petitioners — to begin the written presentation process as to the existing Petitioners (or, if permissible, whether it would be prudent and efficient to do so).

Put another way, it is much more difficult to establish that one will *prevail* at a hearing than that one is *entitled* to a hearing.[16] As to the former, we can again take a cue from the Appeal Board's opinion in *Perry* (22 NRC at 746) to the effect that ''[w]here no threat of irreparable injury is established, both the need for and the wisdom of our precipitous pronouncement on the merits of the [movant's] claims are doubtful at best.'' Accordingly, we keep our remarks on the merits to a bare minimum, so as not even to appear to prejudice the actual consideration of those claims, if in fact such consideration later takes place.

a. Security Plans

As discussed above in connection with irreparable injury, the Company has represented that it would take the steps necessary to comply with the latest Commission security directive before any radioactive sources are received onsite (as noted, the NRC Staff has not taken the opportunity to confirm the Company's compliance). The issue is surely an open one, but — unlike the information the Sixth Circuit had before it as to the deficiencies in the Ohio emergency evacuation plan — nothing comparable before us indicates the Petitioners have the requisite high probability of success on the merits in establishing that deficiencies exist.

b. Accidental Dispersion

The Petitioners have posited different accident scenarios. But thus far none of those scenarios focuses on how the solid (essentially water-insoluble), doubly encapsulated cobalt metal source (in contrast, say, to the cesium powder that was the problem in the earlier GrayStar irradiator mentioned in note 14 above) lends itself to ready dispersion in accident situations. If we get to the hearing stage, it will be open to Petitioners in their written presentation to demonstrate, more specifically than they have so far, the safety problems and dispersion pathways in accident situations. With an apparent lack of prior, similar accidents (like ''cask drop'') to look to, and with the irradiator designed to offer some physical and administrative protections to the sources when cask loading or unloading is taking place, we are unable to say now there is a high probability of success on this issue.

[16] For purposes of triggering a hearing, our Rules of Practice do make it easier, in a Subpart L materials license proceeding like this one, to demonstrate that an ''area of concern'' is ''germane,'' than to establish, in a Subpart G proceeding like those involving nuclear power plants or spent nuclear fuel storage facilities, that a ''contention'' is sufficiently specific and supported by a sufficient ''basis.'' *Compare* 10 C.F.R. § 2.1205(h) with 10 C.F.R. § 2.714(b)(2).

c. Electricity Loss

A principal concern the Petitioners expressed about electricity loss — a situation they correctly assume can be expected to occur from time to time — was the loss of cooling capability. But it appears that the heat generated by the presence of the radioactive sources is of a low order that would simply lead to slow evaporation of the pool water, a matter that can be resolved by the ready addition, without electrical power, of more water. Whether the matter is as simple as the Staff would have it,[17] we again have yet to see an analysis that would lead us to believe in the requisite high probability of Petitioners' success.

d. Air-Line Break

In the design of this irradiator, the air lines serve two purposes: (1) maintaining sufficient pressure in the ''bell'' (containing the product to be irradiated) to prevent pool water from entering its open bottom; and (2) circulating air within the plenum that holds the radioactive sources. In the first instance, the failure of the air line leads most directly to rendering the product unusable; the suggestion that spoiled product would clog the system (in a pool that has no drains) in a manner that affects public safety (as opposed to product quality) remains to be demonstrated. As to the second instance, the Company asserts that the air is not needed for cooling or other safety reasons. On this point, the Staff (*see* Sept. 9 Kinneman Affidavit ¶ 6) indicates that the ''double encapsulated sources are designed to be continuously in contact with either air or water or to cycle between the two.'' We await — but cannot now point to — the Petitioners' rejoinder to that claim.

e. Bond Sufficiency

The Staff indicates that the bond to be posted by the Company is in compliance with existing Commission regulations. The manner in which pending changes in that requirement may affect this proceeding is uncertain. But where Commission regulations are concerned, the belief of project opponents that the regulations are inadequate to serve their safety purpose leaves, at the least, much to be done before success on the merits is within grasp.

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[17] In response to our question (Tr. 254), Staff counsel opined that the solution to this problem was not a ''diesel generator'' (to supply emergency power) but a ''garden hose'' (to refill the pool).

With the movants having thus failed to make the required strong showing on either the ''irreparable injury'' factor or the ''probability of success'' one, we need devote little attention to the other two factors. We treat them briefly below.

3. Injury to Company

The Company essentially failed to provide us orally key information we had requested on a point relevant to its potential injury, i.e., the general schedule for the receipt onsite of the cobalt-60 sources.[18] Similarly, its written representations in opposing the stay — concerning the possible diversion to its suppliers' other customers of sources it was unable to take in timely fashion — were insufficiently specific about lost time and opportunity, and left too much to speculation, to be given much weight in the four-factor balance. Response to Stay ¶ III.C; *compare* Tr. at 259.

4. The Public Interest

In this proceeding, we were not cited to any significant or overriding public interest factor to consider. There appears to be no national policy favoring (or opposing) the rapid deployment of irradiation facilities (*cf.* Tr. at 258). The public interest, of course, favors assuring the safety of facilities regulated by the NRC, but that public interest factor has, in effect, already been considered, i.e., it is an element of the two factors dealing with probability of success on the (safety) merits and the extent, if any, of the irreparable (safety-related) injury to the Petitioners.

D. Conclusion

In sum, applying the criteria in the appropriate fashion (*see* pp. 140-41, above), and with the burden of persuasion on the Petitioners at this stage (*see* p. 140, above), the balance of the four factors weighs against the grant of the stay. As far as matters before us are concerned, then, the Company is free to proceed with its plans to load the cobalt-60 sources into the already-constructed irradiator.

As its counsel readily conceded in a prehearing conference call and at the oral argument, however, if the Company elects to do so it will be proceeding at its own risk. Aug. 26 Tr. at 46-47; Tr. at 261. That is, the Company recognizes that

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[18] *See* Aug. 25 Order Scheduling Responses, framing the initial question; Sept. 2 Tr. at 98, expanding upon it; and Tr. at 225-26, where counsel indicated the Company had ''no idea'' as to overall shipment schedules but said that the first one would be for ''less than 1 million curies.'' The unhelpfulness of that latter answer was readily recognized not only by us but, in the only breach of decorum during the oral argument, by the courtroom spectators. Tr. at 226.

the ultimate legitimacy of the license under which it will, for now, be proceeding, although awarded by the NRC Staff, is subject to the outcome of this proceeding (not only at our level but, if appeals are taken, at the Commissioner level and in the federal courts). In other words, if at any future point in NRC-related litigation the award of the license is rescinded, the Company will be required to remove the cobalt-60 sources, and to take any remedial action that might be appropriate, without regard to any sunk costs it may have incurred.

In denying the requested stay, we intend to express no opinion on either (1) the issues of Petitioners' standing and the germaneness of the areas of concern they have presented or (2) the merits of any of those concerns that may make it to hearing. But we do think it appropriate to acknowledge the concern the Petitioners have alluded to during our conference calls, in their written briefs, and at the oral argument, about less than ideal communications, which apparently have exacerbated their suspicions or fears.[19]

One final matter deserves mention. As noted earlier (p. 138, above), the NRC Staff elected at the outset not to participate in this proceeding, but we overrode that election and directed the Staff to participate, ''at least'' in ''the resolution of the preliminary issues.'' Except for the rendering of our upcoming decision on standing and germaneness, that early stage is now concluded. In light of the course the proceeding has taken, we are not extending any further our direction to the Staff to participate, and — subject to subsequent developments — the Staff's election *not* to participate will thus have operative effect from this point forward.

For the reasons expressed herein, the Petitioners' stay request is DENIED, without prejudice to its renewal if circumstances change. Further, the Staff's election not to participate in the proceeding is REINSTATED.

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[19] For example, the members of the public who are individual Petitioners have questioned the failure to notice the application for hearing (a failure that, we have already noted, threatens to delay any later hearing phase) (*see* p. 138 and note 15, above); the delay in providing key application-related documents (which also required far more attention from us than was warranted) (*see* note 13, above); and the confusion that resulted from announcing that public comment would be entertained one evening, but that the license would (apparently without regard to the content of the comments) in any event be issued soon after (*see* p. 139, above). The public understanding of NRC processes and responsibilities undoubtedly could have been enhanced, and a number of apparent misunderstandings been avoided, if these matters had been handled differently, in keeping with the emphasis on communications that NRC Chairman Diaz has made a watchword of his tenure and that Commissioner Merrifield placed great emphasis upon earlier this year. *See, e.g.,* NRC Chairman Nils J. Diaz, ''Crossroads and Cross-Cutting,'' delivered to the International Congress on Advances in Nuclear Power Plants (May 5, 2003); and NRC Commissioner Jeffrey S. Merrifield, ''What's *Communication* Got to Do With It?,'' delivered to the 2003 Regulatory Information Conference (Apr. 17, 2003).

Any review of this denial of the Petitioners' stay request may be sought under 10 C.F.R. § 2.786(g), as applied by the Commission in *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-8, 47 NRC 314, 320 (1998) and *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-7, 55 NRC 205, 214 n.15 (2002). Any petition for review should address the standards set out in section 2.786(g)(1), (2) and, given that a stay request is involved, should be filed at an early date.

It is so ORDERED.

BY THE PRESIDING OFFICER

Michael C. Farrar
ADMINISTRATIVE JUDGE

Rockville, Maryland
September 23, 2003[20]

Attachment: 1st Page of Courtroom Handout [page 2 of handout was NRC September 3, 2003 Press Release; page 3 was excerpt from June 12, 2001 *Federal Register* Notice regarding security and decorum at NRC proceedings]

Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) CFC Logistics, (2) Petitioners, and (3) the NRC Staff.

[20] As the parties were informed by electronic mail shortly after 4:00 p.m. on Friday, September 19, the hurricane-related office closings and related dislocations in the DC area on the 18th and 19th delayed the issuance of this opinion from the promised ''next Friday night'' September 19 (*see* Tr. at 267) to early this following week. A change in the cobalt-60 shipping schedule, about which the Company had informed us earlier on September 19, made the slight delay in the release of this opinion on the stay motion not consequential in terms of the timing of its relationship to the new shipping schedule.

U.S. NUCLEAR REGULATORY COMMISSION

ORAL ARGUMENT OF COUNSEL
IN CFC LOGISTICS MATERIALS LICENSE PROCEEDING

WEDNESDAY, SEPTEMBER 10, 2003
5:30 — 8:00 P.M.

COURTROOM 1A
LEHIGH COUNTY COURT OF COMMON PLEAS
ALLENTOWN, PA.

Before Administrative Judge Michael C. Farrar, Presiding Officer
and Administrative Judge Charles N. Kelber, Special Assistant

Appearances of Counsel

For Petitioners (certain named citizens of Milford Township)
Robert J. Sugarman and Diane Curran

For the NRC Staff
Stephen H. Lewis

For CFC Logistics
Anthony J. Thompson and Christopher S. Pugsley

Order of Argument (equal time for each side of each issue; adjustments in the times allotted may be made as the argument unfolds)

''Standing'' of the Petitioners — 40 Minutes:

Petitioners	10 minutes
NRC Staff	10 minutes
CFC Logistics	20 minutes

''Germaneness'' of Petitioners' Areas of Concern — 40 Minutes:

Petitioners	10 minutes
NRC Staff	10 minutes
CFC Logistics	20 minutes

Petitioners' Motion for Stay of License Effectiveness — 60 Minutes

Petitioners	30 minutes
NRC Staff	10 minutes
CFC Logistics	20 minutes

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Brian W. Sheron, Acting Director

In the Matter of **Docket No. 50-346**
(License No. NPF-3)

FIRSTENERGY NUCLEAR OPERATING COMPANY
(Davis-Besse Nuclear Power Station, Unit 1) **September 12, 2003**

The Petitioner requested that the Nuclear Regulatory Commission immediately revoke the FirstEnergy Nuclear Operating Company's (FENOC's or the Licensee's) license to operate the Davis-Besse facility. As the basis for the request, the Petitioner stated that FENOC ''has operated outside the parameters of their operating license for several years, has violated numerous federal laws, rules and regulations, and has hidden information from the NRC and lied to the NRC to justify the continuing operation of the Davis-Besse Nuclear Power Station.'' As an alternative, the Petitioner asked the NRC to reexamine its denial of a previous 2.206 petition, submitted by the Toledo Coalition for Safe Energy *et al.,* that requested the NRC issue an order to the Licensee requiring a verification by an independent party for issues related to the reactor vessel head damage at Davis-Besse. In a March 27, 2003, supplement and comments on the NRC Staff's proposed Director's Decision, the Petitioner argued that investigations being conducted by the NRC's Office of Investigations to determine whether FENOC willfully violated NRC requirements and whether FENOC deliberately misled the NRC must be completed, and results made available to the public, before the NRC makes any decisions regarding the merits of the petition or makes any decision regarding restart of the facility.

The final Director's Decision on this petition was issued on September 12, 2003. In that decision, the NRC Staff concluded that delay in consideration of this petition pending completion of the NRC's wrongdoing investigations

is not warranted. The Director's Decision, and the NRC Staff's responses to the Petitioner's comments, explain that the NRC's oversight and enforcement of the Davis-Besse facility are being conducted in accordance with the NRC's enforcement policy and consistent with the oversight that the NRC has provided for other licensees that have displayed similar performance deficiencies. A decision of whether or not the application of the NRC enforcement policy would lead to a conclusion that revocation of the Davis-Besse operating license is appropriate does not hinge on whether or not the apparent violations that occurred at Davis-Besse were wilfull. Because there are ongoing NRC activities that may lead to civil or criminal proceedings, information from the OI investigations that is available to the NRC management for informing NRC decisionmaking is not currently ready for public release. The NRC Davis-Besse Oversight Panel, the NRC Regional Administrator for NRC Region III, the Director of the NRC's Office of Enforcement, and the management of the NRC's Office of Nuclear Reactor Regulation have been regularly briefed on the progress of the OI investigation and will continue to monitor the activities of the NRC's Office of Investigations and evaluate investigation results.

In the Director's Decision, the NRC Staff concluded that the information contained in the petition, the petition supplement, and the comments submitted regarding the proposed Director's Decision does not warrant revocation of the Davis-Besse operating license. The Licensee has established, and is implementing, a Return-to-Service Plan that is comprehensive and addresses human factors, programmatic, and equipment issues as well as issues associated with the corrosion of the reactor vessel head. This includes evaluating, testing, or inspecting plant safety-related systems to ensure that they are able to perform their design-basis functions as defined in the plant's technical specifications and Updated Final Safety Analysis Report. Additionally, the NRC's oversight activities go beyond ensuring that the direct causes of the damage to the reactor vessel head are properly identified and corrected. The NRC's activities also look broadly at safety-related plant systems and programs to ensure that the physical condition of the plant is adequate and that the licensee's operations, maintenance, and engineering organizations are prepared to operate the plant safely if it is permitted to restart. Thus the NRC Staff found that the FENOC Return-to-Service Plan, as monitored by the NRC Davis-Besse Oversight Panel, provides an appropriate opportunity for FENOC to demonstrate or achieve compliance with the NRC's requirements, and that these activities will provide results that address the Petitioner's stated safety concerns.

While serious violations did occur at the Davis-Besse facility, the violations in and of themselves do not warrant revocation of the license. The Davis-Besse facility is currently shut down, and will remain so until the NRC is fully satisfied that there is reasonable assurance of adequate protection of the public health and safety and that any restart issues associated with management of the facility

and potential wrongdoing have been satisfactorily addressed. In its oversight of the Licensee's corrective actions for the apparent violations, the NRC has not observed an inability or unwillingness on the part of FENOC to achieve compliance with NRC regulations, the Davis-Besse operating license, or the Davis-Besse design and licensing bases. Therefore, the Petitioner's request that the NRC revoke FENOC's license to operate the Davis-Besse Nuclear Power Station was denied. Additionally, the NRC Staff finds that the petition provided an insufficient basis for the NRC to reverse its previous decision on the alternative request for verification by an independent party.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

I. INTRODUCTION

By letter dated February 3, 2003, Congressman Dennis Kucinich, Representative for the 10th Congressional District of the State of Ohio in the United States House of Representatives, filed a petition pursuant to section 2.206 of Title 10 of the *Code of Federal Regulations* (10 C.F.R.). The Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC) immediately revoke the FirstEnergy Nuclear Operating Company's (FENOC's or the Licensee's) license to operate the Davis-Besse Nuclear Power Station, Unit 1 (Davis-Besse), located in Ottawa County, Ohio. As an alternative, the Petitioner asked the NRC to reexamine its denial of a previous 2.206 petition, submitted by the Toledo Coalition for Safe Energy *et al.,* that requested the NRC issue an order to the Licensee requiring a verification by an independent party for issues related to the reactor vessel head damage at Davis-Besse.

The basis for the request was that FENOC ''has operated outside the parameters of their operating license for several years, has violated numerous federal laws, rules and regulations, and has hidden information from the NRC and lied to the NRC to justify the continuing operation of the Davis-Besse Nuclear Power Station.'' The Petitioner supported his request by citing various publicly available documents and information related to the reactor pressure vessel head damage. The documents describe noncompliance with the Davis-Besse operating license and violations of NRC regulations. The documents include NRC inspection reports, newspaper articles, and reports published by the Union of Concerned Scientists.

In a letter dated February 10, 2003, the NRC informed the Petitioner that the issues in the petition were accepted for review under 10 C.F.R. § 2.206 and had been referred to the Office of Nuclear Reactor Regulation (NRR) for appropriate action. A copy of the acknowledgment letter is publicly available in

the NRC's Agencywide Documents Access and Management System (ADAMS) under Accession No. ML030360647.

On March 27, 2003, the Petitioner submitted supplemental information to support the petition. The petition and the supplement to the petition are available in ADAMS under Accession Nos. ML030370067 and ML030900613, respectively, or are available for inspection at the Commission's Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records are accessible from the ADAMS Public Electronic Reading Room on the NRC Web site, *http://www.nrc.gov/readingrm/adams.html.* Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR reference staff at 1-800-397-4209 or 301-415-4737, or by e-mail to *pdr@nrc.gov.*

The Licensee responded to the petition on February 27, 2003, and to the supplement on April 11, 2003. These responses were considered, in part, by the Staff in its evaluation of the petition. Copies of the Licensee's responses are publicly available in ADAMS under Accession Nos. ML030640112 and ML031200095.

The NRC sent a copy of the proposed Director's Decision to the Petitioner and to the Licensee for comment on June 6, 2003. The Petitioner and the Licensee both responded with comments in letters dated July 7, 2003. Copies of these documents are also publicly available under ADAMS Accession Nos. ML031390067, ML031390107, ML031390138, ML031910746, and ML032240057, respectively. The NRC also received comments on the proposed Director's Decision from an attorney who is representing a former FENOC employee in a letter dated June 6, 2003, and comments from a concerned citizen in a letter dated July 6, 2003. Copies of these documents are publicly available under ADAMS Accession Nos. ML032410501 and ML031910739. The comments and the NRC Staff's responses to them are attached to this Director's Decision (unpublished).

II. DISCUSSION

In the March 27, 2003, supplement, the Petitioner argued that an investigation being conducted by the NRC's Office of Investigations to determine whether FENOC willfully violated NRC requirements and whether FENOC deliberately misled the NRC must be completed before the NRC makes any decisions regarding the merits of this petition. The NRC Staff has carefully evaluated the Petitioner's request to delay consideration of this petition pending *completion* of the NRC's wrongdoing investigation. As discussed in this Decision, FENOC has initiated, and is still implementing, extensive corrective actions to address hardware, programmatic, and human performance issues to demonstrate or achieve

compliance with NRC regulations. Based on the evidence gathered to date, the corrective actions taken by the Licensee and the NRC's oversight of those corrective actions make it unnecessary for the NRC to delay consideration of this petition's merits pending the completion of activities associated with the NRC's wrongdoing investigation. The NRC Davis-Besse Oversight Panel, the Director of the NRC's Office of Enforcement, the NRC Regional Administrator for NRC Region III, and the management of the NRC's Office of Nuclear Reactor Regulation have been regularly briefed on the progress of the investigation and will continue to monitor the NRC Office of Investigations' activities and evaluate investigation results. However, because there are ongoing NRC activities that may lead to civil and/or criminal proceedings, information from the investigation conducted by the NRC's Office of Investigations that is available to the NRC management for informing NRC decisionmaking is not currently available for public release. If new information is discovered that would support a conclusion that revocation of the Davis-Besse operating license is an appropriate sanction, that action would be taken by the NRC irrespective of whether a 2.206 petition were under review at that time.

The following outline is provided to assist readers in understanding the structure of the NRC Staff's response to the petition and the associated supplement. The headings for Sections B.1 through B.5 merely paraphrase the Petitioner's arguments. These headings are *not* intended to convey any NRC Staff conclusions regarding the petition or the supplement.

A. Reactor Pressure Vessel Head Issues — Background Information

   1. NRC response to reactor pressure vessel head damage at Davis-Besse
   2. Licensee corrective actions
   3. NRC regulatory philosophy

B. Evaluation of Petitioner's Concerns

   1. Enforcement actions ''required'' by NRC rules and guidelines
   2. Revocation of license is necessary to hold FENOC accountable
   3. NRC must revoke the Davis-Besse license in order to appropriately use the authority granted by Congress
   4. NRC must revoke the Davis-Besse license in order to ensure that FENOC is complying with all NRC regulations, guidelines, and the Davis-Besse design and licensing bases

- Aspects of petition supplement applicable to this argument

5. Revocation of the Davis-Besse license is required in order to ensure consistency in NRC enforcement
6. Petition supplement
    a. Effect of boric acid dust in containment
    b. Conformance to the Davis-Besse design and licensing bases
    c. Davis-Besse leak detection capability
    d. Reactor coolant pump gaskets
    e. Completion of monitoring Davis-Besse under NRC's 0350 process
    f. Public participation in NRC's oversight of Davis-Besse
    g. Ongoing NRC Office of Investigation activities
    h. Safety culture at Davis-Besse

C. Petitioner's Alternative Request

The NRC Staff has reviewed the petition and has not identified any new information on Davis-Besse of which the NRC Staff was unaware. The supporting information in the petition contains a number of allegations and other issues. The NRC Staff determined that all of these allegations and issues are appropriately (a) being addressed under the NRC's allegation process, or (b) have been addressed, or are being addressed, by the NRC's inspection process.

A. Reactor Pressure Vessel Head Issues

On March 6, 2002, while Davis-Besse was shut down for refueling, FENOC employees discovered a cavity in the reactor vessel head. The cavity was the result of corrosion caused by long-term leakage of reactor coolant, which contains boric acid, from small cracks in one of the control-rod drive mechanism nozzles that passes through the reactor vessel head. The damaged area of the head was approximately 5 inches long, 4 inches wide, and 6 inches deep. The cavity penetrated the carbon steel portion of the reactor vessel head, leaving only the stainless steel lining. The liner thickness varies somewhat with a minimum design thickness of 1/8 inch. Subsequent examination by Framatome, FENOC's contractor, found evidence of a series of cracks in the liner, none of which was entirely through the liner wall.

1. NRC Response to Reactor Pressure Vessel Head Damage at Davis-Besse

The NRC took a series of actions in response to the discovery of the cavity in the Davis-Besse reactor vessel head. An Augmented Inspection Team was sent to Davis-Besse on March 12, 2002, to collect factual information regarding the conditions that led to the head degradation. Additionally, the NRC issued a Confirmatory Action Letter to the Licensee on March 13, 2002, which confirmed the Licensee's agreement that NRC approval is required for restart of the Davis-Besse plant. The Confirmatory Action Letter also documented a number of actions that the Licensee must implement before the NRC will consider a restart. By letter dated April 29, 2002, the NRC informed FENOC that its corrective actions at Davis-Besse would receive enhanced NRC oversight as described in NRC Inspection Manual Chapter 0350, ''Oversight of Operating Reactor Facilities in a Shutdown Condition with Performance Problems.'' That enhanced monitoring began on May 3, 2002, and included the creation of an oversight panel (the 0350 panel, referred to here as the NRC Davis-Besse Oversight Panel) to provide the required oversight during the plant shutdown, any future restart, and following restart until a determination is made that the plant is ready for return to the NRC's normal Reactor Oversight Process.

On August 16, 2002, the NRC Davis-Besse Oversight Panel issued a Restart Checklist, which is a list of issues that require resolution before restart can be considered. The Restart Checklist includes the following issues:

- Adequacy of root cause determinations
- Adequacy of safety-significant structures, systems, and components
- Adequacy of safety-significant programs
- Adequacy of organizational effectiveness and human performance, and
- Readiness of systems and the Davis-Besse organization for restart

The NRC's inspection and oversight activities, and the associated Restart Checklist, evaluate the Licensee's corrective actions related to the reactor vessel head issues. Additionally, the NRC's activities and Restart Checklist go beyond the issues specific to the reactor vessel head and look broadly at the safety-related plant systems and programs. This broader perspective is necessary to ensure (a) that the conditions that led to the reactor head corrosion are not widespread throughout the plant; (b) that the physical condition of the plant is adequate; and (c) that the Licensee's operations, maintenance, and engineering organizations are prepared to operate the plant safely if it is permitted to restart.

Through a series of inspections, the NRC Davis-Besse Oversight Panel is evaluating the adequacy of FENOC's Return-to-Service Plan. These inspections

consist of independent inspections performed by the NRC Staff and NRC reviews of a sample of work performed by FENOC's staff in each of the areas covered by FENOC's Return-to-Service Plan. By comparing the results of the NRC's independent inspections to the results that the Licensee obtained from its reviews of the same systems and programs, the NRC is able to gauge the depth and quality of FENOC's review processes. If the Licensee's reviews produce the same or similar findings to those of the NRC independent inspections, then it is reasonable to conclude that the NRC can ensure adequate safety through an inspection program that combines independent inspections with reviews of the Licensee's evaluations rather than having to perform independent inspections and evaluations for each of the systems or programs evaluated under FENOC's Return-to-Service Plan. If, however, the NRC's independent inspections produce results that are significantly different from those obtained by the Licensee's reviews, the NRC will notify FENOC of the weaknesses discovered so that FENOC can take action to improve its evaluation processes. The NRC will then conduct followup reviews. In the case of significant differences between the results of NRC inspections and Licensee reviews, the NRC may also perform additional independent inspections to ensure that appropriate actions are taken to identify and correct deficiencies in plant systems or programs evaluated under FENOC's Return-to-Service Plan. As is always the case, any violations of NRC requirements are subject to regulatory actions consistent with the NRC's enforcement policy.

The NRC's activities also include an inspection of FENOC's corrective actions to improve management and human performance at Davis-Besse and an assessment of whether the Davis-Besse organization will be effective at running the plant safely. As part of its evaluation, the NRC hired independent consultants who have expertise in creating and assessing an effective safety-conscious work environment in which employees are encouraged to raise safety concerns and a safety culture where such concerns receive appropriate management attention based on their potential safety significance. This evaluation is ongoing and results will be documented following agency guidelines.

Finally, the NRC is conducting routine meetings with the Licensee and the general public, at locations near the Davis-Besse facility, to discuss FENOC's corrective actions. The meetings with the Licensee are open to members of the public so that they can observe the NRC's oversight of Davis-Besse. The meetings with the general public provide opportunities for members of the public to voice concerns and ask the NRC Staff questions.

2. Licensee Corrective Actions

Corrective actions taken by the Licensee include the development of a Return-to-Service Plan, which was initially described in FENOC's May 16, 2002, letter responding to a 2.206 petition submitted by the Toledo Coalition for Safe Energy

et al. This Return-to-Service Plan, which was submitted to the NRC on May 21, 2002, describes FENOC's intended course of action for Davis-Besse's safe and reliable return to service. It contains corrective actions in the following areas:

- Reactor head resolution
- Containment health assurance
- System health assurance
- Program compliance
- Management and human performance
- Restart testing
- Restart action plan

Revisions to the Return-to-Service Plan were submitted on July 12, August 21, and September 23, 2002, as well as on January 9, and April 6, 2003. Copies of the plan and its revisions are publicly available in ADAMS under Accession Nos. ML021430429, ML022030464, ML022670616, ML022740488, ML 030150732, and ML031000739, respectively. The Return-to-Service Plan includes actions to address the issues identified in Congressman Kucinich's petition and the supplement to the petition concerning the material condition of the plant, the Licensee's compliance with NRC regulations and the Davis-Besse operating license, conformance to the Davis-Besse design and licensing bases, and human performance and safety culture improvements at Davis-Besse.

As part of the implementation of its Return-to-Service Plan, the Licensee established a Restart Organization, which includes not only reorganized and realigned internal senior leadership, but also includes separate oversight review and verification teams. Two of those teams include either an independent community representative or independent industry experts. Specifically, these two teams are (1) the Restart Overview Panel, consisting of Licensee and nonlicensee executives and the local Ottawa County Administrator, which provides global oversight of implementation of the Return-to-Service Plan; and (2) the Engineering Assessment Board, consisting of independent industry experts and members of the Licensee's engineering organization, which is charged with reviewing engineering products and programs. Additionally, the Licensee's restart organization includes a Restart Station Review Board, consisting of site managers and an independent quality assurance representative, which makes initial decisions regarding actions required for restart.

In its April 11, 2003, response to the petition supplement, FENOC stated that its corrective actions have included the replacement of several senior and mid-level managers who had been in positions of responsibility prior to February 2002.

3. NRC Regulatory Philosophy

The NRC regards compliance with regulations, license conditions, and technical specifications as mandatory. However, the NRC also recognizes that plants will not operate trouble-free. This is clearly articulated in 10 C.F.R. Part 50, Appendix B, ''Quality Assurance for Nuclear Power Plants and Fuel Reprocessing Plants,'' Criterion XVI, ''Corrective Action.'' This criterion states that ''[m]easures shall be established to ensure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.''

The NRC's approach to protecting public health and safety is based on the philosophy of ''defense-in-depth.'' Briefly stated, this philosophy (1) requires the application of conservative codes and standards to establish substantial safety margins in the design of nuclear plants; (2) requires high quality in the design, construction, and operation of nuclear plants to reduce the likelihood of malfunctions, and promotes the use of automatic safety system actuation features; (3) recognizes that equipment can fail and operators can make mistakes and, therefore, requires redundancy in safety systems and components to reduce the chance that malfunctions or mistakes will lead to accidents that release fission products from the fuel; (4) recognizes that, in spite of these precautions, serious fuel-damage accidents may not be completely prevented and, therefore, requires containment structures and safety features to prevent the release of fission products; and (5) further requires that comprehensive emergency plans be prepared and periodically exercised to ensure that actions can and will be taken to notify and protect citizens in the vicinity of a nuclear facility.

The appropriate response to an identified deficiency can and should vary, depending on the safety significance of the deficiency. For example, for rapidly developing situations, when prompt action is required to ensure that plants are not in an unsafe condition, automatic safety systems are in place to shut down the reactor. In other, less time-critical situations, technical specifications relating to structures, systems, and components vital to the safe operation of a nuclear plant require that specific actions be taken within a predetermined time period when the structure, system, or component is determined to be inoperable.

In summary, the Licensee's compliance with NRC regulations, license conditions, and licensing commitments is fundamental to the NRC's confidence in the safety of licensed activities; and the Licensee must demonstrate that corrective actions have been effectively implemented, that the Davis-Besse unit is in conformance with applicable NRC regulations, its license conditions, and its Updated Final Safety Analysis Report, and that applicable licensing commitments have been met before the NRC Staff will consider a plant restart.

B. Evaluation of Petitioner's Concerns

The Petitioner's request for enforcement states that the NRC must revoke the Davis-Besse operating license, ''[b]ecause [FENOC] (1) has admittedly operated the plant in violation of NRC rules and regulations and its own operating license, (2) has admittedly failed to observe safety standards necessary to protect health and minimize danger to life or property, and (3) has deliberately withheld information from the NRC and fraudulently misrepresented plant conditions in order to continue to operate the plant in an unsafe manner. . . .'' As an alternative, in a footnote, the Petitioner asks the NRC to reexamine its denial of a previous 2.206 petition, submitted by the Toledo Coalition for Safe Energy *et al.,* that requested the NRC to issue an order to the Licensee requiring a verification by an independent party for issues related to the reactor vessel head damage that occurred at Davis-Besse.

The February 3, 2003, petition offers five basic arguments, in various forms, of why revocation of the Davis-Besse license is required. These arguments may be summarized as follows:

1. NRC regulations and guidelines require revocation of the Davis-Besse license.
2. Revocation of the Davis-Besse license is necessary to hold FENOC accountable for its violations of NRC regulations and its own operating license.
3. If the NRC doesn't revoke the Davis-Besse license, NRC isn't appropriately using the authority granted it by Congress.
4. Revocation of the Davis-Besse license is necessary to ensure that FENOC is complying with all NRC regulations, guidelines, and the Davis-Besse design and licensing bases.
5. Revocation of the Davis-Besse license is required in order for there to be consistency in the manner that the NRC enforces its regulations.

The information in the main petition that the Petitioner uses to support these arguments was taken from NRC inspection reports, newspaper articles, reports from various citizen action groups, or Licensee internal documents that had previously been made public. The NRC was already aware of all of these documents. The NRC Staff reviewed the supporting information used by the Petitioner to determine if it contained any new allegations; nothing new was found. Since the specific supporting information used in the main petition was already known to the NRC, and is already addressed by other NRC inspection or investigation activities, the following discussion in Sections II.B.1 through II.B.5

will address each of the general arguments summarized above rather than the specific supporting information.

The March 27, 2003, supplement to the petition raised the following specific concerns or issues, some of which are related to the fourth general argument of the main petition:

a. Boric acid dust in the reactor containment building (from the reactor vessel head leakage) may have caused corrosion of the electrical system and cable trays.

b. The as-built design of the plant may not be consistent with the plant's design or licensing bases. As a result, the training of FENOC personnel may not match the plant's licensing basis.

c. Davis-Besse does not have the ability to detect a 1-gallon-per-minute leak from the reactor coolant system within 1 hour. Thus, Davis-Besse does not meet the requirements of the general design criteria contained in 10 CFR, Part 50, Appendix A, or the guidance of NRC Regulatory Guide 1.45.

d. Two of the four reactor coolant pumps still have gasket leaks that have not been corrected by the licensee.

e. The NRC's Davis-Besse Oversight Panel will end and the Davis-Besse plant will return to normal monitoring under the NRC's reactor oversight process before NRC has implemented changes to its reactor oversight process that were recommended by an NRC Lessons Learned Task Force.

f. The NRC's enhanced oversight and inspection of FENOC's corrective actions does not allow intervenors or the public to participate in the licensing decision through a formal hearing. Such participation would be possible if the Davis-Besse license were revoked and FENOC had to reapply for another operating license.

g. The investigation being performed by the NRC's Office of Investigations to determine whether FENOC willfully violated NRC requirements and an associated investigation to determine if FENOC deliberately misled the NRC must be completed before the NRC considers the petition. Furthermore, the NRC must consider the petition before allowing the Davis-Besse plant to restart.

h. There are continuing safety culture problems at Davis-Besse.

With the exception of Item b, these specific concerns and issues are addressed individually in Section B.6 of this Decision. Item b is addressed in Sections B.4 and B.6. The headings for Sections B.1 through B.5 merely paraphrase the general arguments made by the Petitioner. These headings are *not* intended to convey any NRC Staff conclusions regarding the petition or the supplement.

1. Enforcement Actions ''Required'' by NRC Rules and Guidelines

The Petitioner asserts that NRC rules and guidelines require that the NRC revoke FENOC's operating license for Davis-Besse. However, the petition does not specify the regulations and guidelines that contain the asserted requirement. The petition does reference a footnote in a previous version of the NRC's enforcement policy (63 Fed. Reg. 26,630-01, 26,642 n.9) regarding exercise of enforcement discretion, but that particular footnote is associated with a section of the enforcement policy dealing with the use of noncited violations instead of Severity Level IV violations (nonescalated and low safety significance) under specific circumstances. The footnote is not applicable to the Petitioner's requested enforcement action because the referenced guidance does not pertain to revocation of a license.

Under the NRC's enforcement policy a license *may* be revoked —

- when a licensee is unable or unwilling to comply with NRC requirements;
- when a licensee refuses to correct a violation;
- when a licensee does not respond to a notice of violation which required a response;
- when a licensee refuses to pay an applicable fee under the Commission's regulations; or
- for any other reason for which revocation is authorized under section 186 of the Atomic Energy Act.

Similar to the enforcement policy, section 186 of the Atomic Energy Act states that, ''[a]ny license *may* [emphasis added] be revoked . . . .'' Thus, the NRC's authority to revoke a license is discretionary. With regard to the damage to the reactor vessel head at Davis-Besse, the NRC's rules and guidelines neither require nor preclude revocation of the license. Rather, the NRC's rules and guidelines allow for a broad spectrum of enforcement actions to be taken, and the NRC's enforcement policy provides guidance on when revocation of a license may be appropriate.

2. Revocation of License Is Necessary To Hold FENOC Accountable

The Petitioner's second argument is that revocation of the Davis-Besse license is required in order to hold FENOC accountable for its ''egregious violations and willful non-compliance.''

As noted in the discussion of the Petitioner's first argument, revocation of the license is not the only course of action that is available to the NRC for holding the Licensee accountable for the violations of NRC regulations and the Davis-Besse

operating license that have been identified by NRC inspections. The NRC's enforcement considerations are still ongoing. These matters will be appropriately handled consistent with NRC policies for enforcement and interface with the U.S. Department of Justice.

As a related issue, the Petitioner alleges that FENOC deliberately withheld information from the NRC and intentionally misrepresented plant conditions to the NRC in order to continue to operate the plant for economic gain. While the NRC's Augmented Inspection Team followup report, and the NRC Davis-Besse Lessons Learned Task Force report, did cite examples of information provided to the NRC that was inaccurate or incomplete, these reports *did not* make any findings regarding willfulness on the part of the Licensee. The NRC is still conducting activities related to this issue. These matters will be appropriately handled consistent with NRC policies for enforcement and interface with the U.S. Department of Justice.

3. NRC Must Revoke the Davis-Besse License in Order to Appropriately Use the Authority Granted by Congress

The Petitioner asserts several times that if the NRC does not revoke the Davis-Besse operating license, the NRC isn't appropriately using the authority granted it by Congress. The petition cites 42 U.S.C. § 2133(b) as giving the NRC authority to grant licenses and 42 U.S.C. § 2137 as giving the NRC authority to revoke licenses. The Petitioner also cites 42 U.S.C. § 2272 and 10 C.F.R. § 50.100 as relevant law or regulation.

A reading of 42 U.S.C. § 2137 shows that it pertains to the revocation of operator licenses held by individuals rather than to facility operating licenses held by corporations or government entities. Thus, this portion of the law cited by the Petitioner does not apply to Petitioner's requested action — revocation of the Davis-Besse facility operating license. The appropriate portion of the U.S. Code is 42 U.S.C. § 2236 (section 186 of the Atomic Energy Act). As discussed in Section B.1 of this Decision, the authority to revoke facility operating licenses granted in section 186 of the Atomic Energy Act is discretionary.

At this point, activities related to the NRC investigation regarding potential willfulness of violations are still ongoing. This includes evaluations of the involvement of specific individuals, which may provide the basis for further action by the U.S. Department of Justice.

With regard to the need for immediate action, the Davis-Besse plant is currently shut down and is subject to increased scrutiny through the NRC's enhanced oversight process. Thus there is no immediate need to revoke the Davis-Besse license in order to protect the health and safety of the public.

The NRC agrees with the Petitioner's goal of ensuring the health and safety of the public. The ongoing processes associated with Davis-Besse are structured

to achieve the safety results that the Petitioner is seeking without revoking the Davis-Besse operating license. The FENOC Return-to-Service Plan, as monitored by the NRC Davis-Besse Oversight Panel, provides an appropriate opportunity for FENOC to demonstrate or achieve compliance with NRC requirements. Thus far, the NRC has not observed an inability or unwillingness on the part of FENOC to achieve compliance with NRC regulations and the Davis-Besse operating license.

4. NRC Must Revoke the Davis-Besse License in Order To Ensure That FENOC Is Complying with All NRC Regulations, Guidelines, and the Davis-Besse Design and Licensing Bases

The Petitioner requests that the ''burden of proof'' be placed on FENOC to show that it is in compliance with NRC requirements and operating the Davis-Besse plant safely. According to the petition, the only way to do that is for the NRC to revoke the Davis-Besse operating license and ''force the Davis-Besse operating facility to undergo the exhaustive and meticulous inspections, tests, and inquiries necessary to obtain a new operating license. These inspections will cover Davis-Besse's entire facility, not just those parts the NRC can justify inspecting based on their knowledge of past problems.'' The Petitioner argues further that the NRC's Davis-Besse Oversight Panel ''cannot adequately ensure public safety. [The NRC Davis-Besse Oversight Panel is] fundamentally encumbered by the fact that the NRC has the burden of proving that [FENOC] is not operating safely. Because of [FENOC's] failings, the burden-of-proof needs to be placed with [FENOC] to prove that they are operating safely.''

In related arguments the March 27, 2003, supplement states that ''[t]he procedures instituted by the NRC concentrate on the corrosion of the reactor head, and seek to correct the causes of that corrosion. . . . The convened process may not uncover other systems that may be similarly degraded and that may contain hidden dangers of similar caliber to the hole discovered in the reactor head.'' The Petitioner also asserts in the supplement that ''[c]urrently, the NRC is not concerned with making sure that the Davis-Besse safety systems match the design and licensing basis of the plant.''

The Petitioner argues that the very reason for revoking FENOC's license is to put the burden of proof on the Licensee to demonstrate compliance because the NRC is ''fundamentally encumbered.'' In other words, the Petitioner is arguing that the Davis-Besse operating license should be revoked in order to force the Licensee to demonstrate compliance with NRC requirements because the NRC is unable to prove that the Licensee *isn't* in compliance. In a license revocation proceeding, the NRC would have the burden of proving that the license should be revoked. If the NRC is unable to satisfy its burden of proof in a revocation proceeding, then the license cannot be revoked. The NRC's authority to revoke

licenses does not allow the NRC to summarily revoke a license simply because it wishes to shift the burden to the Licensee.

The NRC Staff shares the Petitioner's concerns about verifying the adequacy of plant operator performance and ensuring that any future operation of the plant is conducted safely and in compliance with NRC requirements. Contrary to the Petitioner's assertion, the Licensee's corrective actions and the NRC's oversight and inspection activities are not narrowly focused on the root causes and corrective actions associated with the reactor vessel head corrosion. FENOC's Return-to-Service Plan includes Operational Readiness Reviews, System Health Readiness Reviews, and Latent Issue Reviews for safety-related systems beyond the reactor vessel head issues. In plain terms, the Licensee is evaluating, testing, or inspecting plant safety-related systems to ensure that they are able to perform their design-basis functions as defined in the plant's technical specifications and Updated Final Safety Analysis Report. Additionally, the Licensee's Return-to-Service Plan includes activities to foster a safety-conscious work environment in which employees are encouraged to raise concerns and a culture where plant safety issues receive appropriate management attention. The results of the Licensee's corrective actions are being closely monitored by the NRC Staff through independent NRC inspections and reviews of FENOC's evaluations, tests, and inspections. Important issues that are discovered are being added to the NRC's Restart Checklist or carried as unresolved issues in the inspection tracking system as appropriate. The NRC inspections include a Systems Health Inspection, a Management and Human Performance Inspection, and a Program Effectiveness Inspection.

Regardless of where the ''burden of proof'' lies, the important point is that evaluations, inspections, and testing needed to ensure that the plant can operate safely are being performed. The NRC Davis-Besse Oversight Panel has specified in the NRC Restart Checklist the safety-significant issues that must be addressed before the NRC will consider a restart. The NRC's oversight activities for Davis-Besse will ensure that the Licensee's corrective actions adequately address these issues before the NRC will consider allowing the facility to restart.

With regard to the Petitioner's assertion that the NRC is not concerned with making sure that the Davis-Besse safety systems match the design and licensing bases of the plant, the NRC points to the very example cited by the Petitioner. The petition supplement states: ''Several problems with the design-basis have been identified during the [NRC's enhanced oversight] process, including finding that the plant has operated outside of its design-basis since it was built. . . .'' If the NRC were unconcerned as the Petitioner asserts, these items would not have been added to the NRC's Restart Checklist or tracked as open items by the NRC's inspection program. The fact that these issues were identified as part of the NRC's enhanced oversight process and added to the NRC's Restart Checklist, or added to the issues being tracked by the NRC inspection program, demonstrates

that the NRC *is* ensuring that FENOC complies with the Davis-Besse design and licensing bases. The specific actions being taken by the NRC and FENOC with regard to this particular issue are discussed further in Section B.6.b.

5. Revocation of the Davis-Besse License Is Required in Order To Ensure Consistency in NRC Enforcement

The Petitioner argues that revocation of the Davis-Besse operating license is required in order for there to be consistency in the manner that the NRC enforces its regulations. To support this argument, the Petitioner cites a number of enforcement actions taken by the NRC to modify, suspend, or revoke the licenses of materials licensees. The petition implies that the NRC is inconsistently enforcing its requirements with regard to Davis-Besse because the NRC has not revoked FENOC's operating license for the Davis-Besse facility. The petition states: ''[FENOC] has clearly violated NRC regulations and policies to a much greater degree with potentially much greater consequences than others who have had their licenses revoked by the NRC. If NRC does not act here, it raises the question of a double standard — one consequence for those who have greater resources to challenge the NRC's decision, and a different and much more serious consequence for those with fewer resources to challenge the NRC. The NRC is abusing the authority granted to it by Congress if it does not operate fairly and consistently with all of its licensees.''

In its February 27, 2003, response to the petition, FENOC argued that ''[a]ll the license revocation cases cited by Petitioner involve materials licenses and are [irrelevant] and unpersuasive.'' FENOC's response correctly argues that a crucial factor in the NRC decision process on license revocation is whether a licensee is able and willing to comply with NRC requirements. To support this position, the Licensee's response cites a previous NRC denial of a 2.206 petition to shut down the Gore, Oklahoma, facility owned by Sequoyah Fuels. The denial stated that, although serious violations had occurred, the violations in and of themselves did not warrant suspension or revocation of the license. In denying that petition, the decision also noted that the Sequoyah Fuels history did not reflect an inability or unwillingness to comply with NRC requirements.

The fact that the enforcement actions cited by the Petitioner are all from materials licenses does not in and of itself make these cases irrelevant. Indeed, the NRC Staff believes that a close study of these enforcement actions shows, contrary to Petitioner's assertion that the NRC uses a double standard, that the NRC *does* treat its licensees fairly. Of the eight cases cited, only one involved the revocation of the license; two involved immediate suspension of the license, in one case after an employee of the affected licensee had received a significant overexposure to radiation; and the balance of the cited enforcement actions either involved confirmatory orders regarding commitments the licensees had

made, or were notices of violations and/or fines. The one cited enforcement action that revoked the license was taken only after the affected Licensee had a substantial opportunity to comply with NRC requirements and had demonstrated an unwillingness to comply.

The NRC's ongoing inspection and oversight process for Davis-Besse affords FENOC an opportunity to demonstrate that all relevant restart issues have been satisfactorily addressed. NRC evaluations related to potential enforcement actions are still ongoing, as are NRC activities associated with the alleged willfulness of apparent violations and alleged willful withholding of information or deliberate misrepresentation of facts. In its oversight of the Licensee's corrective actions for the apparent violations, the NRC has not observed an inability or unwillingness on the part of FENOC to achieve compliance with NRC regulations, the Davis-Besse operating license, or the Davis-Besse design and licensing bases.

6. Petition Supplement

The supplement raised the following specific concerns:

a. Boric acid dust in the reactor containment building (from the reactor vessel head leakage) may have caused corrosion of the electrical system and cable trays.

b. The as-built design of the plant may not be consistent with the plant's design or licensing bases. As a result, the training of FENOC personnel may not match the plant's licensing basis.

c. Davis-Besse does not have the ability to detect a 1-gallon-per-minute leak from the reactor coolant system within 1 hour. Thus, Davis-Besse does not meet the requirements of the general design criteria contained in 10 CFR, Part 50, Appendix A, or the guidance of NRC Regulatory Guide 1.45.

d. Two of the four reactor coolant pumps still have gasket leaks that have not been corrected by the licensee.

e. The NRC's Davis-Besse Oversight Panel will end and the Davis-Besse plant will return to normal monitoring under the NRC's reactor oversight process before NRC has implemented changes to its reactor oversight process that were recommended by an NRC Lessons Learned Task Force.

f. The NRC's enhanced oversight and inspection of FENOC's corrective actions does not allow intervenors or the public to participate in the licensing decision through a formal hearing. Such participation would be possible if the Davis-Besse license were revoked and FENOC had to reapply for another operating license.

g. The investigation being performed by the NRC's Office of Investigations to determine whether FENOC willfully violated NRC requirements and an associated investigation to determine if FENOC deliberately misled the NRC must be completed before the NRC considers the petition. Furthermore, the NRC must consider the petition before allowing the Davis-Besse plant to restart.

h. There are continuing safety culture problems at Davis-Besse.

The NRC Staff has evaluated these concerns and, as discussed in the following sections, finds that they do not individually, collectively, or in combination with the original petition concerns warrant revocation of the Davis-Besse operating license.

a. Effect of Boric Acid Dust in Containment

The Petitioner expresses a concern that the boric acid dust released into the containment atmosphere through the leak in the reactor vessel head may have caused corrosion of electrical systems and cable trays within the containment. Part of this concern is that the NRC's current inspection program, which looks at a sample of the Licensee's work, may not identify such degraded conditions. The Petitioner argues that the inspections and examinations that would be conducted if FENOC had to reapply for an operating license would identify and correct any electrical system or cable tray deficiencies caused by the boric acid dust.

The structure of the NRC's inspection program and the means by which it provides reasonable assurance that FENOC is taking appropriate corrective actions to adequately protect the health and safety of the public have already been discussed in Section A.1 of this Decision. With regard to this particular issue, the intent of the NRC inspection program at Davis-Besse is to ensure that the Licensee has a program in place that (a) will result in a thorough inspection of the containment and (b) will result in implementation of appropriate corrective actions. The NRC inspection program accomplishes this by verifying that the Licensee has a program that will be able to address the concern then verifying, through a sampling process, that the Licensee's program is effectively implemented.

The Licensee has included this issue within the scope of its inspections and evaluations. Specifically, FENOC's ''Containment Boric Acid Extent of Condition Plan'' is included as a subset of the ''Containment Health Assurance'' portion of FENOC's Return-to-Service Plan. Under the ''Containment Boric Acid Extent of Condition Plan,'' the Licensee is conducting inspections and evaluating the extent of any damage that boric acid dust has caused to structures, systems, and components within the containment. Cable trays, conduit, electrical junction

boxes, ventilation ducts, and other electrical and mechanical components were included in the scope of these inspections and evaluations. Additionally, the NRC Davis-Besse Oversight Panel has included adequacy of structures, systems, and components inside containment in the NRC's Restart Checklist of items that must be satisfactorily addressed before the NRC will consider allowing the facility to restart.

The NRC has conducted two inspections of the Licensee's evaluations and corrective actions for this issue to ensure that FENOC has adequately addressed the effects of the boric acid dust in containment. These inspections are documented in NRC Inspection Reports 50-346/02-09 and 50-346/02-12 (ADAMS Accession Nos. ML022560237 and ML023370132). In the first inspection, the NRC determined that FENOC's ''Containment Boric Acid Extent of Condition Plan'' was sufficiently comprehensive to identify potentially degraded components affected by boric acid within containment. However, this inspection concluded that the Licensee's initial implementation efforts were not effective. FENOC subsequently completed corrective actions, such as revision of inspection plans and retraining of inspection personnel, to address implementation deficiencies and performed repeat inspections. The NRC's second inspection determined that FENOC had implemented appropriate corrective actions to address the performance deficiencies identified during the first NRC inspection. The NRC inspectors found that FENOC's inspection staff was appropriately trained, had adequate equipment and tools, and followed procedures with adequate standards and guidance. The net result was that boric acid and corrosion deposits observed by the NRC inspectors on components within the containment, including electrical components and safety-related equipment, had in each case been independently identified and documented by the Licensee staff. Where the Licensee's inspections identified corrosion, corrective actions had been developed to address the deficiency. This led the NRC Staff to conclude that FENOC was effectively implementing its ''Containment Health Assurance Plan.''

As noted in Section B.4, the important point is that evaluations, inspections, and testing needed to ensure that the plant can operate safely are being performed and are being closely monitored by the NRC field inspection staff. The cable trays and electrical systems are included within this scope of work. Additionally, the NRC is still maintaining an open item on the NRC's Restart Checklist regarding the adequacy of structures, systems, and components inside of the containment. This item must be adequately addressed before the NRC will approve restart of the facility.

Thus far, although there are still open items that the Licensee must address, the results of the NRC's inspections indicate that FENOC is implementing inspections and corrective actions to adequately identify and resolve equipment deficiencies caused by boric acid dust inside containment. Therefore, the NRC Staff concludes that, although this issue may provide a basis for withholding approval of a plant

restart, it does not provide a sufficient basis to revoke the Davis-Besse operating license.

For the longer term, in addition to the enhanced oversight of FENCO's ongoing corrective actions, the NRC's Action Plans for addressing the recommendations of the Davis-Besse lessons-learned task force include activities to assess and improve the NRC's reactor operating experience program, as well as activities to assess and improve the NRC's inspection programs, to ensure that issues such as stress corrosion cracking are adequately addressed by licensees.

b. Conformance to the Davis-Besse Design and Licensing Bases

The Petitioner alleges that the Davis-Besse facility may not meet its design or licensing bases and that neither the Licensee nor the NRC is concerned with assessing and correcting the problem. As discussed in Section B.4 above, the NRC is concerned with ensuring that Davis-Besse conforms to its design and licensing bases. Not only is the Licensee evaluating its plant safety systems and programs for compliance with NRC requirements such as design and licensing bases, but the NRC's oversight activities include independent NRC inspections and NRC reviews of the Licensee's evaluations to ensure conformance of safety systems and programs to the design and licensing bases. Where deficiencies are identified by the Licensee, they are entered into the Licensee's formal corrective action program and prioritized based on safety significance. Safety-significant deficiencies identified by the NRC are being added to the NRC's Restart Checklist, and they must be resolved before the NRC will consider any future restart. Additionally, some issues that are identified by the Licensee may also be added to the NRC Restart Checklist, depending on the safety significance of the issues. Some items of low safety significance would not be required to be completed before a plant restart, but would be required to be captured within FENOC's corrective action program.

Finally, the Petitioner raises a separate but related issue with regard to training of FENOC personnel. Specifically, the supplement states: ''The NRC has not concentrated on ensuring that the training of personnel matches the licensing basis of the plant as they would have to do if they conducted a full licensing and examination process.''

In accordance with a 1996 Memorandum of Agreement between the NRC and the Institute of Nuclear Power Operations (INPO), INPO maintains a formal process for periodically evaluating the training programs of licensees for personnel who operate or maintain safety-related equipment. FENOC's training program has maintained its INPO accreditation. Additionally, the NRC's Operator Licensing program evaluates licensee requalification programs for licensed operators to ensure that the operators maintain proficiency in operating the plant during normal and upset conditions, including responses to accidents.

The Licensee's training program is correctly focused on both the licensing basis and component performance. The requalification program for licensed operators appropriately covers responses to various accident scenarios where components fail to operate as expected. While the training covers required design parameters to ensure that the reactor core remains in a safe condition and components operate properly, the training also emphasizes use of the site's emergency operating procedures for alternate means of responding to plant events or accidents if some equipment fails to operate as designed. Furthermore, when design issues are identified that warrant implementation of modifications or procedure revisions, the Licensee's training program includes requirements to conduct training for plant operations personnel on revisions or modifications that are made to plant equipment.

The deficiencies in the Davis-Besse design and licensing bases that have been identified by the NRC's inspections or FENOC's reviews have been entered into the Licensee's corrective action program as part of the FENOC Return to Service Plan. Additionally, this issue is being tracked under the NRC Restart Checklist ''System Readiness for Restart'' line item and it must be adequately addressed before the NRC will consider a restart of the plant. Furthermore, the NRC's oversight includes a specific inspection of the Licensee's corrective action program. Therefore, since the Licensee's ongoing corrective actions, as monitored by the NRC Davis-Besse Oversight Panel, are addressing this issue, the NRC Staff considers that this concern does not provide a sufficient basis to revoke the Davis-Besse operating license.

c. Davis-Besse Leak Detection Capability

The Petitioner's stated concern is that the new leak detection system being installed by FENOC is not capable of detecting a 1-gallon-per-minute reactor coolant system leak within 1 hour. Thus, Petitioner asserts, Davis-Besse will not be in compliance with General Design Criterion 30 specified in 10 C.F.R. Part 50, Appendix A, or in conformance with the guidance provided in NRC Regulatory Guide 1.45. Additionally, the new leak detection system will only detect leakage from the reactor and not from other piping systems connected to the reactor. Finally, the Petitioner expresses a concern that containment radiation monitors are not capable of detecting a 1-gallon-per-minute reactor coolant leak within the 1-hour guideline and industry experience has shown that radiation monitors may take significantly more time to detect small reactor coolant system leaks than technical specifications allow to complete a plant shutdown when leakage exceeds the technical specification limits. The Petitioner argues that this issue would be rectified if FENOC were forced to reapply for a license to operate the Davis-Besse facility.

General Design Criterion 30 specifies that (a) ''[c]omponents which are part of the reactor coolant pressure boundary shall be designed, fabricated, erected, and tested to the highest quality standards practical,'' and (b) ''[m]eans shall be provided for detecting and, to the extent practical, identifying the location of the source of reactor coolant leakage.'' The Petitioner's stated concern deals with the second part of this general design criterion.

The NRC Staff has reviewed this concern and determined that the enforcement action suggested by the Petitioner would not provide the relief that is sought. First, because the Davis-Besse construction permit was issued prior to May 21, 1971, the general design criteria are not applicable to Davis-Besse (*see* SECY-92-223, dated September 18, 1992; ADAMS Accession No. ML003763736). Second, if the NRC were to impose the requirement of General Design Criterion 30 on the Licensee, revocation of the operating license would not be required to accomplish that change in the Davis-Besse licensing basis.

As described in the Davis-Besse Updated Final Safety Analysis Report, the design and licensing bases of the facility do, however, contain leakage detection systems and the facility does have the ability to detect and monitor leakage that is of the magnitude about which the Petitioner expresses concern. The Davis-Besse facility has methods to detect and monitor reactor coolant system leakage other than the new leak detection system that is being installed. In addition to this new system and the radiation monitoring systems that the Petitioner has already noted, Davis-Besse has a containment sump level and flow monitoring system that provides a separate leak detection ability. The plant's technical specifications include requirements for the operability of the containment sump level and flow monitoring system, and the containment radiation monitors during plant operation. The technical specifications also include requirements for routine monitoring and trending of water inventory balances which provide indications of potential reactor coolant system leakage. The Davis-Besse Updated Final Safety Analysis Report describes an additional capability to detect leakage through trending of changes in makeup tank water level.

The NRC Staff reviewed the Davis-Besse leakage detection systems during the plant's initial licensing. As documented in NUREG-0136, Supplement 1, ''Safety Evaluation Report Related to Operation of Davis-Besse Nuclear Power Station Unit 1,'' dated April 1977, the NRC Staff concluded that the plant design conformed sufficiently to the guidance of NRC Regulatory Guide 1.45 to satisfy the intent of General Design Criterion 30. The fact that the new leak detection system may not be capable of detecting a 1-gallon-per-minute reactor coolant system leak within 1 hour does not negate the NRC Staff's previous conclusion that the plant design meets the intent of General Design Criterion 30. That is because the principal leak detection systems described in the plant's Updated Final Safety Analysis Report are still in place and still part of the plant design and

licensing bases. The new leakage detection system provides an additional level of diversity in the plant's leakage detection capability.

The NRC Staff notes that inability of containment instrumentation to detect reactor coolant system leakage was not a contributing factor to the corrosion of the Davis-Besse reactor vessel head. Rather, the corrosion was the result of the Licensee's failure to understand the indications that were available (in addition to the physical flaws in the reactor vessel head). In other words, the Licensee had ample indication that a problem existed, but failed to take an appropriate response. Indeed, as Petitioner noted in Section E of the main petition, ''[b]eginning in the spring of 1999, the [radiation detector air filters] were becoming clogged on an increasingly frequent basis, sometimes as often as every day. . . . Although engineers suspected a coolant leak, they did not find it. Instead, they continued to clean and change the filters, sometimes every day. Workers, moreover, moved the monitor intakes to different spots, and even bypassed one of the devices' three sensors because it continued to trigger alarms.'' The actual leakage rate throughout the plant's last operating cycle never reached 1 gallon per minute, and averaged less than 0.3 gallon per minute. Thus, the actual plant experience demonstrates that the plant does have an ability to detect small leakage rates through direct or indirect effects of leaks.

Because the general design criterion cited by the Petitioner does not apply to Davis-Besse, because the NRC Staff has previously reviewed the plant design and determined that the intent of the general design criterion is met, and because actual plant experience has demonstrated that the physical systems can detect a small reactor coolant system leak, the NRC Staff concludes that the Petitioner's stated concern regarding Davis-Besse's leak detection capability does not provide a basis to revoke the Davis-Besse operating license. Hence, the associated issue regarding the amount of time required for radiation monitors to detect reactor coolant system leakage is not relevant to the question of whether the Davis-Besse operating license should be revoked. In and of itself, this issue does not provide a basis for revoking an operating license. For the sake of completeness, however, this issue will be addressed here.

The Petitioner argues that the amount of time required to detect reactor coolant system leakage using radiation monitors must be consistent with the amount of time allowed by the technical specifications to complete a shutdown. Although it might seem that the amount of time required to detect leakage is linked to the amount of time that technical specifications allow to complete a shutdown, in actuality there is no such link. The technical specification limits are set conservatively low in order to prompt operators to initiate action before leakage gets worse and seriously challenges plant safety. The amount of time that the technical specifications allow to complete a shutdown when the leakage limits are exceeded, on the other hand, provides a reasonable amount of time to conduct an

orderly shutdown of the plant once it is concluded that a technical specification leakage limit has been exceeded.

The NRC Staff is aware, as the Petitioner correctly points out, that improvements in nuclear fuel integrity since 1973, when NRC Regulatory Guide 1.45 was issued, have resulted in decreases in reactor coolant radioactivity levels at many plants. This has created reductions in radiation monitor abilities to detect reactor coolant system leakage at some plants. However, radiation monitors may be able to detect a 1-gallon-per-minute leak rate within a period longer than 1 hour and still provide adequate leak-before-break detection capability. Moreover, when considered in conjunction with other diverse leakage detection systems, the NRC Staff concludes that the availability of at least one detection method that is capable of detecting a leak rate increase of about 1-gallon-per-minute within 1 hour provides adequate leak-before-break detection capability. That detection method might not employ radiation monitors. For Davis-Besse, the containment sump level and flow monitoring system described in the plant's Updated Final Safety Analysis Report is capable of detecting a 1-gallon-per-minute leak rate within such a period that meets the intent of NRC Regulatory Guide 1.45.

The NRC's ''Action Plan for Addressing Davis-Besse Lessons Learned Task Force Recommendations Regarding Assessment of Barrier Integrity Requirements,'' includes a milestone to reevaluate the bases for reactor coolant system leakage requirements and reassess the capabilities of currently used and state-of-the-art leakage detection systems. This will appropriately address the issues regarding detector capabilities and technical specification requirements on an industrywide basis rather than an ad-hoc manner.

d. Reactor Coolant Pump Gaskets

The Petitioner expresses a concern that FENOC has only replaced gaskets in two of the four reactor coolant pumps at Davis-Besse. To support this concern, the Petitioner cites a complaint by a former FENOC employee filed with the Department of Labor, and a March 27, 2003, report issued by the Union of Concerned Scientists. Both of those documents claim that known deficiencies exist with gaskets on all four of the Davis-Besse reactor coolant pumps. The Union of Concerned Scientists report draws on internal FENOC documents and a July 2, 2002, letter from a reactor coolant pump technical support vendor (Flowserve) to support its argument that the reactor coolant pump gaskets are deficient and, further, that both FENOC and the NRC have failed to take appropriate corrective actions.

The statements made in the petition supplement regarding the condition of the reactor coolant pump gaskets are restatements of allegations that were recently reviewed by the NRC. As noted in the petition supplement, and in the documents the Petitioner used as sources, the gaskets in two of the reactor coolant pumps

were replaced during the current outage. The remaining two reactor coolant pumps, 2-1 and 2-2, are the pumps at issue.

In the July 2, 2002, letter from Flowserve to FENOC, the vendor stated that minor gasket leakage during thermal transients might occur and is not indicative of an at-power leak. The NRC inspectors who reviewed the engineer's allegation were unable to locate vendor statements that the gaskets require replacement as soon as an inner gasket leak is detected. Instead, the vendor stated (both in the second paragraph of the July 2, 2002, letter and in a letter dated September 16, 2002) that it is acceptable to continue operating with an inner gasket leak, provided that the outer gasket does not leak. FENOC performed air tests on pumps 2-1 and 2-2 in August 2002. No leakage was detected and, thus, the results of those tests indicated that the reactor coolant pump gaskets are sound. The NRC inspectors determined that previous indications of gasket leakage found during air tests were the result of poor testing conditions that resulted in inaccurate test results.

Additionally, in its April 11, 2003, response to the supplement, FENOC stated that all four of the reactor coolant pumps will be tested with water at normal operating pressure prior to restart to inspect for reactor coolant pump gasket leakage. The NRC Staff will monitor the results of the operating pressure test and ensure that any needed corrective actions are incorporated into the Licensee's corrective action process. Therefore, the NRC Staff concludes that this issue does not provide a sufficient basis to revoke the Davis-Besse operating license.

e. Completion of Monitoring Davis-Besse Under the NRC's 0350 Process

The Petitioner expresses a concern that the NRC's enhanced oversight (0350) process will be terminated after the Davis-Besse plant is allowed to restart but before the NRC has implemented changes to the NRC's Reactor Oversight Process as recommended by an NRC Lessons Learned Task Force. Additionally, the Petitioner asserts that there is no mechanism that allows for public involvement to ensure that the Lessons Learned Task Force recommendations relative to the NRC's reactor oversight process are implemented prior to the end of the NRC's enhanced oversight of Davis-Besse.

The Petitioner is essentially arguing that the NRC's normal Reactor Oversight Process is potentially inadequate and that the recommendations of the NRC Lessons Learned Task Force must be implemented to correct the Reactor Oversight Process's deficiencies. This is a separate issue from the question of whether the Davis-Besse operating license should be revoked. Neither the NRC Lessons Learned Task Force nor the Petitioner identified fundamental flaws in the NRC Reactor Oversight Process. Rather, the NRC Lessons Learned Task Force recommended actions to improve and enhance the normal oversight process. The need for such improvements in the NRC's normal Reactor Oversight Process, however, is not a basis for revoking a facility operating license since the existence

of a flawless NRC oversight program is not a prerequisite for a licensee to be granted or to retain a facility operating license.

Considering that the NRC Lessons Learned Task Force identified areas for improvement in the normal Reactor Oversight Process, it is understandable, however, that the Petitioner seeks assurance that future NRC oversight of Davis-Besse will adequately ensure that FENOC operates and maintains the plant in compliance with NRC requirements. If the NRC does approve a restart of the Davis-Besse facility, the NRC's Inspection Manual Chapter 0350, which governs the NRC's Enhanced Oversight Process, specifies that enhanced NRC oversight will continue after restart until such time that the NRC Davis-Besse Oversight Panel determines that the Licensee has demonstrated acceptable performance. Post-restart enhanced oversight will not be terminated unless the NRC Davis-Besse Oversight Panel recommends to the appropriate NRC Regional Administrator that the plant be returned to monitoring under the normal Reactor Oversight Process. That Regional Administrator, in consultation with the NRC Director of the Office of Nuclear Reactor Regulation and the Office of the Executive Director for Operations, will decide whether a return to the normal Reactor Oversight Process is warranted.

The recommendation of the NRC Davis-Besse Oversight Panel to return Davis-Besse to the normal Reactor Oversight Process would also provide the basis for the panel's conclusion that the plant can be returned to routine monitoring. The NRC's evaluation process to reach such a conclusion will include the use of an inspection plan that is specifically tailored to the particular circumstances of the Davis-Besse plant. Under that plan, critical Licensee performance areas of concern, for example, Management and Human Performance, will be inspected. A return of the Davis-Besse facility to the normal Reactor Oversight Process would include an assessment of the plant's performance and a determination of whether significant additional NRC oversight is required in accordance with the normal Reactor Oversight Process guidance.

Additionally, some of the Lessons Learned Task Force's near-term recommendations are already being functionally accomplished through the NRC's enhanced oversight of Davis-Besse. For example, the Lessons Learned Task Force recommendations included development of inspection guidance (a) to ensure that reactor vessel head penetration nozzles and the reactor pressure vessel head area are periodically reviewed by the NRC during Licensee inservice inspection activities and (b) provide for timely periodic inspections of pressurized water reactor boric acid corrosion control programs. The NRC's Restart Checklist for Davis-Besse includes the adequacy of the reactor pressure vessel head replacement and the adequacy of the Davis-Besse Boric Acid Corrosion Management Program as issues that must be satisfactorily addressed before the NRC will consider a plant restart. Thus, for these examples, the issues are being addressed as part of the NRC Davis-Besse Oversight Panel's activities and, in the short term, the associated recommendations of the Lessons Learned Task Force will be functionally

accomplished even though the NRC's programmatic implementation of the NRC Lessons Learned Task Force recommendations may not be fully implemented at the time a decision regarding restart of the Davis-Besse plant is made.

With regard to the Petitioner's assertion that there is a lack of opportunity for public involvement to ensure that the Lessons Learned Task Force recommendations relative to the NRC's reactor oversight process are implemented prior to the end of the NRC's enhanced oversight of Davis-Besse, the NRC is planning to conduct public meetings to discuss the NRC's action plans that will address the NRC Lesson's Learned Task Force's recommendations. These meetings will provide members of the public an opportunity to voice concerns and comment on the action plans. Additionally, the NRC's Inspection Manual Chapter 0350 recommends that the NRC Davis-Besse Oversight Panel conduct public meetings with the Licensee to discuss Licensee performance, and hold separate meetings with the public, prior to termination of the NRC Enhanced Oversight Process. Consistent with the NRC's practice of conducting routine public meetings, as has been done throughout the entire Enhanced Oversight Process for Davis-Besse, such meetings would afford members of the public an opportunity to ask questions of the NRC Staff and voice concerns about returning Davis-Besse to the NRC's normal Reactor Oversight Process. Finally, the NRC's normal Reactor Oversight Process also provides a means for public participation through the annual performance review, which includes a public meeting with the Licensee at which the public can ask questions of the NRC Staff regarding Licensee performance and raise issues for NRC followup.

f. Public Participation in NRC's Oversight of Davis-Besse

Petitioner expresses a concern that the NRC's enhanced oversight and inspection of FENOC's corrective actions does not allow the public to participate in the licensing decision through a formal hearing. The Petitioner states that such participation would be possible if the Davis-Besse license were revoked and FENOC had to reapply for another operating license.

The NRC Staff believes that, in keeping with the overall approach of the NRC's Reactor Oversight Process, the enhanced oversight of FENOC's corrective actions under its Return-to-Service Plan is transparent and affords substantial opportunities for interested members of the public to voice safety concerns. The NRC Davis-Besse Oversight Panel has been conducting public meetings with the Licensee and the general public on a routine basis. The meetings held with the Licensee are open for the public to observe and time is provided after the business portions of these meetings for public questions and comments. The meetings with the general public allow interested parties to voice their concerns and ask questions of the NRC Staff. Since the discovery of the damaged reactor vessel head at Davis-Besse in March 2002, the NRC has conducted more than twenty-five meetings

with FENOC that were open for public observation/participation and more than twelve meetings directly with the public to discuss the Licensee's corrective actions and listen to the public's concerns. Furthermore, the local residents of Ottawa County have a representative on the FENOC Restart Overview Panel to whom they can communicate concerns.

For all the reasons discussed in this Director's Decision, the Petitioner has not provided a sufficient basis for revoking the Davis-Besse operating license. Thus, the procedural implications attendant to issuance of an operating license do not arise.

g. Ongoing NRC Office of Investigations Activities

The Petitioner asserts that the investigation being conducted by the NRC's Office of Investigations to determine whether FENOC willfully violated NRC requirements and whether FENOC deliberately misled the NRC must be completed before considering this petition or allowing the Davis-Besse plant to restart. This Decision has already discussed the reasons for considering the petition prior to completion of activities related to the NRC's wrongdoing investigation. Therefore, the following discussion will focus on the matter of a potential NRC decision to allow plant restart.

The wrongdoing investigation looks at the past actions of any suspect individuals. However, an NRC decision to allow plant restart would be based on an assessment of the Licensee's current performance and its effectiveness in following conservative decisionmaking processes to ensure adequate nuclear and personnel safety. The NRC Davis-Besse Oversight Panel, the Director of the NRC's Office of Enforcement, the NRC Regional Administrator for NRC Region III, and the management of the NRC's Office of Nuclear Reactor Regulation have been regularly briefed on the progress of the wrongdoing investigation and will continue to monitor the NRC Office of Investigations' activities. The NRC Davis-Besse Oversight Panel, with input from other NRC organizations, such as the Office of Investigations, the Office of Enforcement, the Office of the General Counsel, and the Office of Nuclear Reactor Regulation, will evaluate evidence gathered during the investigation prior to making a recommendation for restart of the Davis-Besse facility to ensure that due consideration is given to any matter that could affect public health and safety. If any individuals are implicated in wrongdoing, the NRC will consider whether the individual is in, and if so should remain in, a position of responsibility at Davis-Besse. Hence, although it will be informed of the evidence gathered during the NRC's wrongdoing investigation, an NRC decision regarding restart of the plant would not be linked to the *completion* of all activities related to the NRC's wrongdoing investigation.

The NRC's enhanced oversight of Davis-Besse's corrective actions includes a Management and Human Performance Inspection, a Program Effectiveness

Inspection, and an assessment of the effectiveness of FENOC's activities to foster a healthy safety culture. Any future NRC decision to allow a restart of the Davis-Besse facility will be based on the NRC's assessment of whether FENOC has adequately addressed the issues covered by the NRC Restart Checklist. That assessment will include, but is not limited to, a determination of whether (a) the conditions that led to the reactor head corrosion have been adequately addressed; (b) the physical condition of the plant, including safety systems, is adequate; and (c) the Licensee's management, operations, maintenance, and engineering organizations are committed to, and capable of, operating the plant safely if it is permitted to restart.

h. Safety Culture at Davis-Besse

The Petitioner asserts that there are continuing deficiencies in the safety culture of the Davis-Besse staff. To support this argument, the Petitioner repeats allegations made by a former FENOC employee who claims that FENOC terminated his employment in retaliation for his engaging in protected activities. The petition states: ''[t]he NRC should thoroughly investigate [FENOC's] refusal to test or repair the remaining two Reactor Coolant Pumps, and [the former employee's] claims of retribution. . . . This is also offered as a supplement to the 2-206 petition, Section G, detailing [FENOC's] lack of rehabilitation in its safety culture following the discovery of the hole in the reactor head.''

As discussed in Section B.6.d, the reactor coolant pump 2-1 and 2-2 gaskets were tested during August 2002 with satisfactory results and the Licensee's test plan includes a test of all four reactor coolant pumps with water at normal operating pressure prior to any future restart to inspect for reactor coolant pump gasket leakage in accordance with the pump vendor's recommendations. The NRC Staff will monitor the results of this test and ensure that any needed corrective actions are incorporated into the Licensee's corrective action process. Therefore, there is no FENOC refusal to test the reactor coolant pumps for the NRC to investigate as requested by the Petitioner.

The NRC 2.206 process is not an appropriate forum for addressing wrongful termination claims of a former employee. The allegations made by the former employee, which the Petitioner cites in the supplement, are contained in a formal complaint filed with the U.S. Department of Labor by that individual, which is monitored by the NRC. The Department of Labor process and the NRC's Allegations process are the appropriate means for addressing the former FENOC employee's complaint and allegations.

With regard to the broader safety culture issue, FENOC has developed a ''Management and Human Performance Corrective Action Plan,'' to address deficiencies in the safety culture at Davis-Besse. The plan includes training sessions for all FENOC employees on raising safety concerns and the proper

handling of safety issues. The plan also includes an independent assessment of FENOC's safety culture at the Davis-Besse facility led by an industrial psychologist. Additionally, with the support of industry experts, the NRC is assessing the Licensee's approach to improving the safety culture and safety-conscious work environment at Davis-Besse. The NRC will not authorize restart of the Davis-Besse plant unless the NRC is satisfied that FENOC has effectively implemented corrective actions to foster a safety-conscious work environment in which employees are encouraged to raise concerns and a culture where plant safety issues receive appropriate management attention based on safety significance.

Therefore, the NRC Staff concludes that, although this issue may provide a basis for withholding approval of a plant restart, it does not provide a sufficient basis to revoke the Davis-Besse operating license.

C. Petitioner's Alternative Request

The petition includes an alternative request that the NRC revisit its previous denial of a 2.206 petition that sought NRC action to issue an order to FENOC requiring verification by an independent party for issues related to the Davis-Besse reactor head corrosion. The Director's Decision issued for that 2.206 petition concluded:

> The NRC Staff finds that its ongoing actions are sufficient to verify the adequacy of the Licensee's performance related to [reactor vessel] head degradation issues and to reassure the public that all reasonable safety measures have been taken prior to plant restart. The combined efforts of the [NRC Augmented Inspection Team] and the [NRC Davis-Besse Oversight Panel] will adequately identify and evaluate the technical and programmatic issues at Davis-Besse. The [NRC] Staff has adequate expertise and resources to monitor the Licensee's corrective and preventative actions. Thus, the enforcement-related action requested by the Petitioners for [verification by independent party] is not warranted. Additionally, the Licensee is already taking action to provide an adequate level of independent verification for restart activities. Therefore, the Petitioners' request for the NRC to issue an Order to the Licensee requiring the establishment of a [verification by independent party] is denied. If further assessment by the [NRC Davis-Besse Oversight Panel] identifies new and/or different issues that warrant consideration of an enforcement-related action similar to Millstone, a change to the current Staff regulatory approach will be considered.

DD-02-1, 56 NRC 191, 197 (2002).

Since that Director's Decision was issued, FENOC has continued to include independent industry experts in its restart oversight organization, and the NRC Davis-Besse Oversight Panel continues to closely monitor the Licensee's corrective actions. Additionally, FENOC has contracted with a team of independent

experts to perform an independent assessment of FENOC's safety culture at the Davis-Besse facility. The February 3, 2003, petition did not provide information of a new or different nature that warrants reconsideration of the previous Director's Decision.

III. CONCLUSION

The NRC Staff has carefully considered the Petitioner's arguments regarding why FENOC's operating license for the Davis-Besse Nuclear Power Station should be revoked, as well as the alternative request for reconsideration of a previous request for verification by an independent party. The NRC Staff shares the Petitioner's concerns about verifying the adequacy of plant operator performance and ensuring that future operation of the plant is conducted safely and in compliance with NRC requirements. The Licensee has established, and is implementing, a Return-to-Service Plan that is comprehensive and addresses human factors, programmatic, and equipment issues as well as issues associated with the corrosion of the reactor vessel head. This includes evaluating, testing, or inspecting plant safety-related systems to ensure that they are able to perform their design-basis functions as defined in the plant's technical specifications and Updated Final Safety Analysis Report. Additionally, the NRC's inspection activities and the NRC's Restart Checklist go beyond ensuring that the direct causes of the damage to the reactor vessel head are properly identified and corrected. The NRC's activities also look broadly at safety-related plant systems and programs to ensure that the physical condition of the plant is adequate and the Licensee's operations, maintenance, and engineering organizations are prepared to operate the plant safely if it is permitted to restart. Thus the NRC believes that the FENOC Return-to-Service Plan, as monitored by the NRC Davis-Besse Oversight Panel, provides an appropriate opportunity for FENOC to demonstrate or achieve compliance with NRC requirements, and that these activities will provide results that adequately address the Petitioner's stated safety concerns.

With regard to the specific action of revoking the Davis-Besse operating license sought by the Petitioner, the NRC Staff finds that there is insufficient basis to take the requested action. While serious violations did occur at the Davis-Besse facility, the violations in and of themselves do not warrant revocation of the license. The Davis-Besse facility is currently shut down, and will remain so until the NRC is fully satisfied that there is reasonable assurance of adequate protection of the public health and safety and that any restart issues associated with management of the facility and potential wrongdoing have been satisfactorily addressed. In its oversight of the Licensee's corrective actions for the apparent violations, the NRC has not observed an inability or unwillingness on the part of FENOC to achieve compliance with NRC regulations, the Davis-Besse operating license, or

the Davis-Besse design and licensing bases. Therefore, the Petitioner's request that the NRC revoke FENOC's license to operate the Davis-Besse Nuclear Power Station is denied. Additionally, the NRC Staff finds that the petition provides an insufficient basis for the NRC to reverse its previous decision on the alternative request for verification by independent party.

As provided in 10 C.F.R. § 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the Decision will constitute the final action of the Commission 25 days after the date of the Decision unless the Commission, on its own motion, institutes a review of the Decision within that time.

FOR THE NUCLEAR REGULATORY COMMISSION

Brian W. Sheron, Acting Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 12th day of September 2003.

Attachment (not published): Staff Responses to Comments on Proposed Director's Decision DD-03-3

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 72-26-ISFSI**

PACIFIC GAS AND ELECTRIC COMPANY
(Diablo Canyon Power Plant Independent Spent Fuel Storage Installation)

October 15, 2003

The Commission denies review of Licensing Board decisions that rejected challenges to Pacific Gas and Electric Company's application to authorize construction of a dry-cask independent spent fuel storage installation at the site of the Diablo Canyon Power Plants.

RULES OF PRACTICE: INTERESTED GOVERNMENTAL PARTICIPANT; APPELLATE REVIEW

APPELLATE REVIEW: INTERESTED GOVERNMENTAL PARTICIPANT

A governmental participant has the right to petition for review. *See* 10 C.F.R. § 2.715(c); *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-317, 3 NRC 175, 177 (1976).

RULES OF PRACTICE: APPELLATE REVIEW; COMMISSION REVIEW OF LICENSING BOARD DECISIONS

APPELLATE REVIEW: CRITERIA FOR REVIEW

The Commission may grant a petition for review if it raises a substantial question with respect to the following considerations:

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
> (iii) A substantial and important question of law, policy or discretion has been raised;
> (iv) The conduct of the proceeding involved a prejudicial procedural error; or
> (v) Any other consideration which the Commission may deem to be in the public interest.

10 C.F.R. § 2.786(b)(4).

RULES OF PRACTICE: APPELLATE REVIEW

APPELLATE REVIEW: RAISING MATTERS FOR FIRST TIME

An appeal may not be based on new arguments not raised before the Board. *See Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 221 (1997).

RULES OF PRACTICE: APPELLATE REVIEW

APPELLATE REVIEW: PRESENTATION OF ISSUES

In the introductory remarks of its petition for review and again in a final footnote, San Luis Obispo County requested that the Commission review an issue. In neither place did SLOC relate why it thought the Board's decision was erroneous or why Commission review should be exercised, as required by our regulations. *See* 10 C.F.R. § 2.786(b)(2)(iii)-(iv). This is not enough to trigger plenary Commission appellate review. *See Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775, 786 (1979). *See also Curators of the University of Missouri,* CLI-95-1, 41 NRC 71, 132 n.81 (1995); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 383 (2001).

REGULATIONS: INTERPRETATION (§ 72.102(f)(1))

ISFSI: DESIGN EARTHQUAKE

For sites that have been evaluated under the criteria for nuclear power plants, the design earthquake for an ISFSI must be equivalent to the safe shutdown earthquake for a nuclear power plant. *See* 10 C.F.R. § 72.102(f)(1). The Board correctly interpreted the regulation as addressing the design earthquake for a power plant at the same site as the ISFSI.

FINANCIAL QUALIFICATIONS: EFFECT OF CONCURRENT BANKRUPTCY PROCEEDING

ISFSI: FINANCIAL QUALIFICATIONS

The mere fact of PG&E's filing for bankruptcy does not by itself indicate that it is no longer financially qualified to continue day-to-day operations at the Diablo Canyon facility.

FINANCIAL QUALIFICATIONS: EFFECT OF CONCURRENT BANKRUPTCY PROCEEDING; REGULATED ENTITIES

ISFSI: FINANCIAL QUALIFICATIONS

As a rate-regulated utility, PG&E was entitled to certain presumptions regarding its financial qualifications, specifically, that as a regulated entity, reasonable and prudent costs of safe operation will be recovered through the ratemaking process. *See Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 13, *rev'd on other grounds,* CLI-88-10, 28 NRC 573 (1988). PG&E happens to be in bankruptcy, but it is still a rate-regulated utility and entitled to the corresponding presumption about financial qualification.

RULES OF PRACTICE: ADMISSIBILITY OF CONTENTIONS

LICENSING BOARDS: DISCRETION IN MANAGING PROCEEDINGS (RULING ON CONTENTIONS)

CONTENTIONS: ADMISSIBILITY; NARROWING

The Board sensibly admitted only the portion of a contention that deals with the *current applicant,* i.e., PG&E.

RULES OF PRACTICE: APPELLATE REVIEW

LICENSING BOARDS: RESOLUTION OF ISSUES

The Commission declines to second-guess plausible Board findings of fact. *See, e.g., Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 382 (2001).

RULES OF PRACTICE: OPPORTUNITY TO ADDRESS ISSUES

LICENSE TRANSFER: ISFSI; FINANCIAL QUALIFICATIONS; EFFECT OF CONCURRENT BANKRUPTCY PROCEEDING

FINANCIAL QUALIFICATIONS: REGULATED ENTITIES

If PG&E remains the Licensee, of course, the presumption regarding financial qualifications of rate-regulated utilities would still apply. On the other hand, for another entity to become the license holder, PG&E would have to request the NRC to transfer the ISFSI license. As the Board noted, such a transfer request would be subject to a hearing, at which the question of the new entity's financial qualifications could be litigated.

LICENSE TRANSFER: ISFSI; FINANCIAL QUALIFICATIONS

The proposed transferee of a license for an independent spent fuel storage installation must provide as much financial information as if the application were for an initial license. *See* 10 C.F.R. §§ 72.50(b)(1) and 72.22(e).

MEMORANDUM AND ORDER

The County of San Luis Obispo (SLOC) and six Intervenors led by the San Luis Obispo Mothers for Peace (collectively, SLOMFP) seek Commission review of two Licensing Board decisions (LBP-02-23 and LBP-03-11) that, cumulatively, rejected challenges to an application by Pacific Gas & Electric Company (PG&E) to construct and operate an independent spent fuel storage installation (ISFSI) in San Luis Obispo, California. We deny both petitions for review.

I. BACKGROUND

On December 21, 2001, PG&E filed an application for a materials license authorizing storage of spent nuclear fuel in a dry cask storage system at the

California site of its two Diablo Canyon commercial nuclear reactors. Numerous petitioners sought to intervene, and five entities asked to participate in the adjudication as interested governmental entities.[1] In addition to the Lead Petitioner, the Board found that the Santa Lucia Chapter of the Sierra Club, San Luis Obispo Cancer Action Now, Peg Pinard, the Avila Valley Advisory Council, and the Central Coast Peace and Environmental Council had standing.[2] The Board granted governmental participant status to SLOC and three other entities.[3]

After sorting through the parties' submissions, the Board admitted a single contention, SLOMFP's Contention TC-2, which questioned PG&E's financial qualifications.[4] SLOMFP raised concerns about the impact of PG&E's bankruptcy on its continuing ability to construct, operate, and decommission an ISFSI ''by reason of its access to continued funding as a regulated entity or through credit markets.''[5] The Board narrowed the contention from that proposed by SLOMFP; specifically, the Board excluded two bases — the unresolved California Attorney General's lawsuit against PG&E Corporation for alleged fraud and the financial qualifications of any entities other than PG&E that may construct or operate the ISFSI.[6]

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[1] *See* 10 C.F.R. § 2.715(c).

[2] *See* LBP-02-23, 56 NRC 413 (2002).

[3] The Board initially recognized SLOC and the Port San Luis Harbor District as governmental participants. *See* Licensing Board Memorandum and Order (Establishing Schedule for Identification of Issues by Interested Governmental Entities; Limited Appearance Participation) (Aug. 7, 2002) at 1 (unpublished). Subsequently, the Board granted governmental participant status to the California Energy Commission and the Avila Beach Community Services District. *See* LBP-02-23, 56 NRC at 435.

[4] *See* LBP-02-23, 56 NRC at 441-43. The Board rejected four other technical contentions and referred to the Commission its decision to reject portions of three environmental contentions. Earlier this year the Commission affirmed the Board's denial of admission of the environmental contentions. *See* CLI-03-1, 57 NRC 1 (2003).

[5] LBP-02-23, 56 NRC at 442.

[6] *See id.* at 443. There are two competing plans of reorganization in the bankruptcy proceeding. Approval of PG&E's plan would require that the ISFSI license be transferred to a new entity, Electric Generation LLC (''Gen''). Approval of the California Public Utility Commission's plan would require PG&E to continue to hold the ISFSI license. Under a pending bankruptcy settlement proposal, PG&E would remain the Licensee when it emerges from bankruptcy. *See* Letter from David Repka, PG&E Counsel, to the Licensing Board at 2 (June 24, 2003). *See also Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-10, 58 NRC 127 (2003). As part of its bankruptcy Plan of Reorganization, PG&E applied to the NRC on Nov. 30, 2001, to transfer its licenses for the Diablo Canyon power plants to Gen. The NRC Staff issued an order approving the license transfer application, with conditions that make completion of the transfer contingent on the outcome of the bankruptcy proceeding. *See* Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2); Order Approving Transfer of Licenses and Conforming Amendments, 68 Fed. Reg. 33,208 (June 3, 2003), announcing Staff order dated May 27, 2003.

The hearing in this case went forward under the special provisions in 10 C.F.R. Part 2, Subpart K.[7] After considering the Subpart K written submissions and oral arguments of the parties and governmental participants, the Board denied the request for a full-scale evidentiary hearing and terminated the proceeding.[8] SLOMFP and SLOC filed petitions for review of the Board's decisions in LBP-03-11 and LBP-02-23.[9] Both PG&E and the NRC Staff oppose the petitions for review.

II. DISCUSSION

Under 10 C.F.R. § 2.786(b)(4), the Commission may grant a petition for review if it raises a substantial question with respect to the following considerations:

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
> (iii) A substantial and important question of law, policy or discretion has been raised;
> (iv) The conduct of the proceeding involved a prejudicial procedural error; or
> (v) Any other consideration which the Commission may deem to be in the public interest.[10]

SLOMFP asserts that in LBP-02-23 the Board erred by denying admission of Contention TC-1 (inadequate seismic analysis), unlawfully excluded Contention EC-2 (nondisclosure of purpose of ISFSI), and erred by rejecting Contention EC-3 (inadequate consideration of transportation-related impacts). Further, SLOMFP contends that the Board erred in concluding that PG&E is financially qualified for the ISFSI license. For the seismic and financial qualification issues, SLOMFP urges review because of substantial questions of policy and discretion; and for the other issues, legal error. SLOC also challenges the Board's financial qualifications

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[7] *See* 10 C.F.R. §§ 2.1101-2.1117; *see also Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 383-86 (2001).

[8] *See* LBP-03-11, 58 NRC 47 (2003).

[9] A governmental participant has the right to petition for review. *See* 10 C.F.R. § 2.715(c); *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-317, 3 NRC 175, 177 (1976).

[10] 10 C.F.R. § 2.786(b)(4).

decision in LBP-03-11, but does so on the ground that the Board made several erroneous findings of fact and conclusions of law.[11]

We deny review of all issues the Petitioners raise, for the Board's decisions do not implicate substantial questions of policy and discretion. Nor did the Board misapply the law or misread the facts. Only two issues warrant further Commission comment.

A. Contention TC-1 (Seismic)

An appeal may not be based on new arguments not raised before the Board.[12] SLOMFP, however, has attacked the Board's decision on seismic issues — i.e., its rejection of Contention TC-1 — for reasons raised for the first time in its petition for review. Our rules state that for sites that have been evaluated under the criteria for nuclear power plants, the design earthquake must be equivalent to the safe shutdown earthquake for a nuclear power plant.[13] Accordingly, in Contention TC-1, SLOMFP addressed alleged inadequacies of the seismic source characterization for the design basis earthquake at the Diablo Canyon power plant site. The Board reasonably found that SLOMFP's concerns do not show the original seismic findings ''inaccurate to some meaningful degree.''[14]

Nevertheless, in its petition for review, SLOMFP contends that the Board's ruling that, absent new information sufficient to alter the original site evaluation, the design earthquake for a nuclear power plant constitutes the design earthquake for any co-located ISFSI has no support in the regulations. SLOMFP makes a weak semantic argument based on the choice of article (''a'' versus ''the'') used in 10 C.F.R. § 72.102(f). We need not consider SLOMFP's new semantic argument, first raised in the petition for review. In any event, SLOMFP's interpretation of the regulation is strained and illogical. The Board correctly interpreted the regulation as addressing the design earthquake for a power plant at the same site as the ISFSI.

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[11] SLOC also requested the Commission to review the Board's decision to use the 10 C.F.R. § 2.714 contention standards to evaluate issues raised by interested governmental participants. SLOC made the request in the introductory remarks of its petition for review and again in a final footnote. In neither place did SLOC relate why it thought the Board's decision was erroneous or why Commission review should be exercised, as required by our regulations. *See* 10 C.F.R. § 2.786(b)(2)(iii)-(iv). This is not enough to trigger plenary Commission appellate review. *See Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775, 786 (1979). *See also Curators of the University of Missouri,* CLI-95-1, 41 NRC 71, 132 n.81 (1995); *Shearon Harris,* CLI-01-11, *supra,* 53 NRC at 383.

[12] *See Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 221 (1997).

[13] 10 C.F.R. § 72.102(f)(1).

[14] *See* LBP-02-23, 56 NRC at 441.

B. Contention TC-2 (Financial Qualifications)

Because of apparent confusion, evidenced by the petitions for review, about what the Board's financial qualifications ruling in LBP-03-11 does and does not do, we will briefly address that issue.

The possible impact of PG&E's bankruptcy on its ISFSI application gave rise to serious concerns by both SLOMFP and the interested governmental participants in this adjudication. When the Board admitted SLOMFP's financial qualifications contention, it correctly stated that the mere fact of PG&E's filing for bankruptcy does not by itself indicate that it is no longer financially qualified to continue day-to-day operations at the Diablo Canyon facility.[15] The Board thus admitted the financial qualifications contention only regarding the impact of PG&E's bankruptcy ''on its continuing ability to undertake the new activity of constructing, operating, and decommissioning an ISFSI by reason of its access to continued funding as a regulated entity or through credit markets.''[16] The Board later ruled that, as a rate-regulated utility, PG&E was entitled to certain presumptions regarding its financial qualifications; specifically, that as a regulated entity, reasonable and prudent costs of safe operation will be recovered through the ratemaking process.[17]

SLOMFP faults the Board for, among other things, ''mak[ing] a safety finding regarding a time period that the [Board] itself excluded from consideration in the proceeding: the period following PG&E's bankruptcy.''[18] According to SLOMFP, the Board ''addressed the narrow question of whether PG&E will be financially qualified as long as it remains in bankruptcy.''[19] SLOMFP is troubled that there is no evidence in the record regarding the financial qualifications of any other entity that might be PG&E's successor. Similarly, SLOC believes that ''PG&E took inconsistent positions, by demanding that the Board treat it as a utility regulated by the California Public Utilities Commission [with the ability to recover costs] from regulated rates without further demonstration of financial qualification'' and ''fil[ing] a reorganization plan in the bankruptcy court that would result in the transfer of ISFSI responsibilities to a non-CPUC-regulated successor company.''[20]

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[15] *See id.* at 442.

[16] *Id.*

[17] *See* LBP-03-11, 58 NRC at 67; and *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 13, *rev'd on other grounds,* CLI-88-10, 28 NRC 573 (1988).

[18] Intervenors' Petition for Review of LBP-02-23 and LBP-03-11, at 5 (Aug. 18, 2003).

[19] *Id.* at 6.

[20] Brief in Support of Petition for Review of Atomic Safety and Licensing Board Order Dismissing SLOMFP Contention TC-2 Challenge to PG&E's December 2001 Application to Construct and Operate an ISFSI at Its DCPP by the County of San Luis Obispo Under 10 C.F.R. § 2.786(b)(1), at 2-3 (Aug. 20, 2003). *See* note 6.

SLOMFP's and SLOC's arguments miss the mark. The Board sensibly admitted only the portion of SLOMFP's contention that deals with the *current applicant,* i.e., PG&E. PG&E happens to be in bankruptcy, but it is still a rate-regulated utility and entitled to the corresponding presumption about financial qualification. After reviewing written submissions and hearing oral arguments, the Board concluded that no evidence effectively rebutted the presumption. The Commission declines to second-guess plausible Board findings of fact.[21]

The Board did not, however, make any *findings* about the post-bankruptcy period when it merely recited the two most probable outcomes of the bankruptcy proceeding, specifically, that PG&E would remain the Licensee or that the ISFSI license would need to be transferred to another entity. If PG&E remains the Licensee, of course, the presumption regarding financial qualifications of rate-regulated utilities would still apply. On the other hand, for another entity to become the license holder, PG&E would have to request the NRC to transfer the ISFSI license. As the Board noted, such a transfer request would be subject to a hearing, at which the question of the new entity's financial qualifications could be litigated.[22] And the proposed transferee must provide as much financial information as if the application were for an initial license.[23]

In summary, the Commission denies review of the Board's financial qualifications ruling, which addresses only the current applicant and the current situation — PG&E as debtor-in-possession during bankruptcy reorganization. The Board's order does not make any findings about the qualifications of any possible successor entity, nor does it cut off hearing rights in the event an entity other than PG&E ultimately desires to become the ISFSI licensee.

III. CONCLUSION

The Commission *denies* SLOMFP's and SLOC's petitions for review of LBP-02-23 and LBP-03-11.

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[21] *See, e.g., Shearon Harris,* CLI-01-11, 53 NRC at 382.

[22] LBP-03-11, 58 NRC at 67-68.

[23] *See* 10 C.F.R. §§ 72.50(b)(1) and 72.22(e).

IT IS SO ORDERED.

For the Commission

ANDREW L. BATES
Acting Secretary of the Commission

Dated at Rockville, Maryland,
this 15th day of October 2003.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 40-7580-LT**

FANSTEEL, INC.
(Muskogee, Oklahoma Site) **October 23, 2003**

RULES OF PRACTICE: STANDING; CONTENTIONS

To intervene as of right in a licensing proceeding, a petitioner must demonstrate standing, i.e., that its ''interest may be affected by the proceeding.'' *See* Atomic Energy Act § 189a, 42 U.S.C. § 2239(a). In addition, in a license transfer proceeding, the petition to intervene must raise at least one admissible issue. *See* 10 C.F.R. § 2.1306.

RULES OF PRACTICE: STANDING

Given the state's clear interest in protecting the people and property within its boundaries, we agree that Oklahoma has standing to contest Fansteel's license transfer application. This conclusion is further supported by our longstanding recognition of ''the benefits of participation in our proceedings by representatives of interested states.'' *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Units 1 and 2), CLI-99-30, 50 NRC 333, 344 (1999).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

Our rules specify that, to demonstrate that issues are admissible in a Subpart M proceeding, a petitioner must

(1) set forth the issues (factual and/or legal) that petitioner seeks to raise,

(2) demonstrate that those issues fall within the scope of the proceeding,

(3) demonstrate that those issues are relevant to the findings necessary to a grant of the license transfer application,

(4) show that a genuine dispute exists with the applicant regarding the issues, and

(5) provide a concise statement of the alleged facts or expert opinions supporting petitioner's position on such issues, together with references to the sources and documents on which petitioner intends to rely.

See 10 C.F.R. § 2.1306; *Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 295 (2000), and references cited therein.

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

Mere ''notice pleading'' is insufficient under these standards. A petitioner's issue will be ruled inadmissible if the petitioner ''has offered no tangible information, no experts, no substantive affidavits,'' but instead only ''bare assertions and speculation.'' *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000). On the other hand, our requirement for specificity and factual support is not intended to prevent intervention when material and concrete issues exist. *See Fitzpatrick/Indian Point 3,* CLI-00-22, 52 NRC at 295. For instance, if a license transfer application itself lacks necessary detail, a petitioner may meet its pleading burden by providing ''plausible and adequately supported'' claims that the data are either inaccurate or insufficient. *See Oyster Creek,* CLI-00-6, 51 NRC at 207. ''[I]f the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief'' would constitute sufficient information to show that a genuine dispute exists (under 10 C.F.R. § 2.714(b)(2)(iii), the Subpart G analogue of 10 C.F.R. § 2.1306).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

The Commission's specificity requirements demand more from Oklahoma than its one brief reference to Fansteel's Disclosure Statement and Reorganization Plan, with the conclusory statement that *if* one analyzes it one *could* clearly see that the promises for funding are *unlikely* to be fulfilled.

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

Oklahoma has the obligation not just to refer generally to voluminous documents (here totaling several hundred pages), but to provide analysis and supporting evidence as to why particular sections of those documents (here, the Reorganization Plan and Disclosure Statement) provide a basis for the contention.

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

If Oklahoma believed that Fansteel's License Transfer Application lacks necessary detail, Oklahoma could have met its pleading burden by providing plausible and adequately supported claims that the data are either inaccurate or insufficient, i.e., by specifically identifying each failure and explaining why the data are flawed.

RULES OF PRACTICE: LICENSE TRANSFER

LICENSE TRANSFER

This Order terminates only the adjudication, not the NRC Staff's parallel administrative review of Fansteel's License Transfer Application. *See generally Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-01-14, 53 NRC 488, 508 (2001) (referring to the Staff's ''administrative action that ran parallel to the instant adjudication''); *Duquesne Light Co.* (Beaver Valley Power Station, Units 1 and 2), CLI-99-25, 50 NRC 224, 226 (1999) (distinguishing between the Staff's ''administrative'' review of comments and the Commission's ''adjudicatory'' review of a request for hearing).

Our decision to terminate the adjudicatory phase of this proceeding does not, however, equate to approval of Fansteel's license transfer application. The adjudicatory and Staff reviews are parallel, but separate, aspects of our license transfer reviews.

RULES OF PRACTICE: PETITION TO INTERVENE

We have, in earlier license transfer proceedings, expressed our disapproval of petitioners who, despite being informed of the shortcomings of their petitions to intervene, nonetheless fail to correct them in a Reply Brief. *See Oyster Creek,* CLI-00-6, 51 NRC at 203-04 (''[w]hen the transfer Applicants' answer pointed out these defects [immateriality or conclusory presentation], NIRS filed no reply, although Subpart M authorized it to do so. . . . NIRS's unelaborated petition is plainly deficient under the detailed issue-pleading requirements of Subpart M'').

See also Northeast Nuclear Energy Co. (Millstone Nuclear Power Station, Units 1, 2, and 3), CLI-00-18, 52 NRC 129, 132 (2000) (after noting the lack of specificity and documentation in a petition for review, we observed with disapproval that ''[p]etitioners also did not take advantage of our rule, 10 C.F.R. § 2.1307(b), permitting them to reply to the transfer applicants' opposition to standing'').

MEMORANDUM AND ORDER

This proceeding involves Fansteel, Inc.'s July 24, 2003, application to transfer the materials license (No. SMB-911) for its facility in Muskogee, Oklahoma. Fansteel, pursuant to the Reorganization Plan[1] that it recently filed with the United States Bankruptcy Court in the District of Delaware, seeks our consent under 10 C.F.R. § 40.46 to transfer this license to FMRI, Inc., a subsidiary that Fansteel intends to create after it emerges from bankruptcy.[2] According to Fansteel, FMRI would be the sole holder of the license and would have as its only business purpose the remediation of the Muskogee site.

On August 21, 2003, the Commission published a notice that the Commission was considering Fansteel's application and invited both comments and requests for hearing, pursuant to our procedural regulations governing license transfer proceedings (10 C.F.R. Part 2, Subpart M).[3] In response, the State of Oklahoma submitted a hearing request on September 10th.[4] Oklahoma's hearing request presents only one issue: ''whether the license transfer to an unfunded subsidiary constitutes [an] unreasonable risk to the public health and safety.''[5] In sum, Oklahoma asserts that Fansteel has failed to satisfy its obligation under 10 C.F.R.

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[1] ''Joint Reorganization Plan of Fansteel Inc. and Subsidiaries,'' submitted July 24, 2003, in the United States Bankruptcy Court for the District of Delaware.

[2] The early pleadings in this proceeding referred to the subsidiary as ''MRI, Inc.'' Fansteel, however, informed the Commission on September 22, 2003, that the name ''MRI, Inc.'' was unavailable and that Fansteel was therefore replacing the name with ''FMRI, Inc.'' *See* Fansteel's Answer to the State of Oklahoma's Request for Hearing, dated Sept. 22, 2003, at 3 n.2. To avoid confusion, the Commission is using only the new name throughout this order, including our quotations from early pleadings where parties referred to ''MRI, Inc. or ''MRI.''

[3] *See* 68 Fed. Reg. 50,588.

[4] On the same date, Oklahoma also filed a hearing request regarding Fansteel's request for approval of the revised Decommissioning Plan for the Muskogee site. The Commission's Atomic Safety and Licensing Board is currently considering that matter separately under Docket No. 40-7580-MLA-3. Due to the interrelated nature of the two proceedings, the Commission hereby takes official notice of all documents submitted in that docket. *See generally* 10 C.F.R. § 2.743(i). We describe *infra* both the interrelationship of the proceedings and the nature of the revision.

[5] Oklahoma's Hearing Request at 7.

§ 40.36 to demonstrate financial assurance for decommissioning the Muskogee site.

Both Fansteel and the NRC Staff respond that, while Oklahoma has established standing to intervene, it has not raised an admissible issue as required by 10 C.F.R. § 2.1306. Accordingly, they urge the Commission to deny Oklahoma's hearing request.[6] We agree with Fansteel and the Staff that Oklahoma has failed to present an admissible issue and we therefore deny its request for hearing and terminate this adjudicatory proceeding.[7]

I. BACKGROUND

The Commission issued License No. SMB-911 to Fansteel under 10 C.F.R. Part 40. Under this license, Fansteel is authorized to possess source material consisting of up to 400 tons of natural uranium and thorium in any form at its Muskogee site, where Fansteel operated a rare metal extraction facility until December 1989. As a result of those operations, the site currently contains contaminated material in the form of uranium, thorium, radium, and their decay-chain products. This contamination is located in process equipment and buildings, soil, sludge, and groundwater.[8] Fansteel is responsible for decontaminating the Muskogee site by conducting remediation and decommissioning activities in accordance with both Fansteel's Decommissioning Plan and certain supplemental correspondence with the NRC Staff relating to that Plan.

In January 2002, Fansteel notified the Commission that Fansteel had filed a petition for bankruptcy pursuant to Chapter 11 of the U.S. Bankruptcy Code. One year later, in January 2003, Fansteel submitted to the NRC Staff a revised Decommissioning Plan for the Muskogee site. In this plan, Fansteel proposed to remove the contaminated materials in the soil and groundwater to meet the unrestricted release requirements of the Radiological Criteria for License Termination rules (10 C.F.R. Part 20, Subpart E). Fansteel stated that the amount and type of financial assurance to be provided in connection with the Decommissioning Plan would be set forth in a Reorganization Plan that Fansteel intended to file

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[6] *See* NRC Staff's Response to Oklahoma's Request for Hearing, dated Sept. 22, 2003, at 7-10; Fansteel's Response to Oklahoma's Request for Hearing, dated Sept. 22, 2003, at 8-11.

[7] To avoid any confusion, we stress that this Order terminates only the adjudication, not the NRC Staff's parallel administrative review of Fansteel's License Transfer Application. *See generally Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-01-14, 53 NRC 488, 508 (2001) (referring to the Staff's ''administrative action that ran parallel to the instant adjudication''); *Duquesne Light Co.* (Beaver Valley Power Station, Units 1 and 2), CLI-99-25, 50 NRC 224, 226 (1999) (distinguishing between the Staff's ''administrative'' review of comments and the Commission's ''adjudicatory'' review of a request for hearing).

[8] *See* 68 Fed. Reg. 50,588.

with the Bankruptcy Court. In addition, to support the terms and conditions of the Reorganization Plan, Fansteel indicated its intent to file both an alternative schedule for completion of decommissioning and a request for exemption from the regulatory funding requirements in 10 C.F.R. § 40.36(d) and (e).

In May 2003, Fansteel informed the NRC Staff that, once it had emerged from Chapter 11 bankruptcy, its subsidiary FMRI would undertake a four-phased approach to decommissioning the Muskogee site. Fansteel, however, withdrew its Decommissioning Plan on June 26th. On July 24th, Fansteel resubmitted the Decommissioning Plan that it had originally submitted in January 2003, and requested that the NRC reinitiate its review of the plan. In addition, Fansteel requested that the NRC amend the license to reflect approval of the Decommissioning Plan, approve an alternate decommissioning schedule pursuant to 10 C.F.R. § 40.42(i), and grant an exemption from the financial assurance requirements of 10 C.F.R. § 40.36(e). Finally, as part of its resubmittal, Fansteel filed a supplement to the Decommissioning Plan outlining the means by which Fansteel proposed to provide financial assurance for decommissioning — an assurance that Oklahoma questions in both the decommissioning-related license amendment proceeding (*see* note 4, *supra*) and the instant license transfer proceeding.

II. THE LICENSE TRANSFER APPLICATION

Concurrently with filing its most recent Decommissioning Plan, Fansteel submitted the instant application seeking our consent to the proposed license transfer. Like Fansteel's Decommissioning Plan supplement, the license transfer request included a detailed description of how Fansteel intended to fund FMRI's decommissioning of the Muskogee site. Fansteel explained that, under its proposed Reorganization Plan, it intends to transfer both the Muskogee site and the NRC license to FMRI, which will then assume all decommissioning responsibility. However, because Fansteel is operating as a debtor-in-possession under the jurisdiction of the Bankruptcy Court, both the creation of FMRI and the initiation of its decommissioning activities can occur only after the Bankruptcy Court's approval of the Reorganization Plan and Fansteel's consequent emergence from bankruptcy protection. The decommissioning financial assurance mechanisms (summarized below) would thus be implemented if and when the Reorganization Plan becomes effective.

While the responsibility for decommissioning the Muskogee site would fall entirely to FMRI under the proposal, the newly reorganized Fansteel would provide FMRI's funding pursuant to the proposal before the Bankruptcy Court. Both Fansteel's proposed Decommissioning Plan supplement and License Transfer Application set forth detailed information regarding the ways Fansteel intends to fund FMRI's decommissioning activities. These include:

(1) An unsecured Primary Note in the amount of $30.6 million to cover remediation of the site as set forth in the approved Decommissioning Plan, with a maturity date of December 31, 2013, and with the NRC named as a third-party beneficiary and first-priority lien-holder;

(2) an initial payment on the Primary Note of $250,000, payable on the effective date of the Reorganization Plan;

(3) minimum mandatory semi-annual payments on the Primary Note of $700,000;

(4) additional mandatory prepayments on the Primary Note of up to $4 million, based on ''Excess Available Cash'';[9]

(5) insurance proceeds (if any) that are received by the Reorganized Fansteel with respect to Muskogee claims, all of which proceeds would be applied to the Primary Note;

(6) Reorganized Fansteel/Reorganized Wellman[10] asset sale proceeds, if any, to be applied to the Primary Note;

(7) an unsecured Secondary Note in the amount of $4.2 million, issued on the effective date of the Reorganization Plan and with a maturity date of December 31, 2023, to cover estimated costs of groundwater treatment and monitoring, and with the NRC named as a third-party beneficiary and first-priority lien-holder;

(8) annual payments of $282,000 on the Secondary Note, beginning in 2013;[11]

(9) an unsecured Contingent Note to address additional remediation of the site and groundwater, as needed, in an as-yet-undetermined amount, with a maturity date to reflect additional time, if any, required to remediate the site, and with the NRC as a first-priority lien-holder;[12]

(10) mandatory minimum semi-annual payments on the Contingent Note (but commencing only after the Primary Note is paid in full);

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[9] ''Excess Available Cash'' is defined as the actual change in the year-end cash balance, exclusive of post-effective date subsidiaries and less certain specified amounts. The amount of excess available cash is to be determined by outside auditors within 90 days of the end of each fiscal year.

[10] Reorganized Wellman is an existing subsidiary of Fansteel with stand-alone value.

[11] Fansteel's License Transfer Application (at 8 n.9) indicates that these payments will begin in 2013. However, its Response to Oklahoma's Request for Hearing (at 4) sets the date at 2009. We consider the Application to be controlling.

[12] Fansteel would deliver this Contingent Note to FMRI if, after completing additional site characterization during Phase 3 of the Decommissioning Plan, Fansteel concluded that FMRI needed additional funds (over and above the Primary and Secondary Notes) to complete the decommissioning of the Muskogee site. The NRC, Fansteel, and FMRI would jointly agree to the amount of both the Contingent Note and the minimum repayments. *See* Application at 5-6.

(11) payments on the Contingent Note, funded by Reorganized Fansteel's ''excess available cash'' (but commencing only after the Primary Note is paid in full); and

(12) payments on the Contingent Note, funded by certain insurance proceeds.[13]

In the event that the Reorganized Fansteel cannot timely and/or fully fund FMRI's obligations for any year, then FMRI may draw upon the ''LC Cash Reserve''[14] of $2 million on a revolving basis. As part of its effort to demonstrate the availability of sufficient decommissioning funding, Fansteel offered estimates of the funds it expects to pay FMRI through the year 2013, as well as the closure cost estimates for those years.[15]

III. DISCUSSION

To intervene as of right in a licensing proceeding, a petitioner must demonstrate standing, i.e., that its ''interest may be affected by the proceeding.'' *See* Atomic Energy Act § 189a, 42 U.S.C. § 2239(a). In addition, in a license transfer proceeding, the petition to intervene must raise at least one admissible issue. *See* 10 C.F.R. § 2.1306. As discussed below, Oklahoma has demonstrated standing but has raised no admissible issue.

A. Standing

Neither Fansteel nor the NRC Staff contests Oklahoma's standing. Given the state's clear interest in protecting the people and property within its boundaries, we agree that Oklahoma has standing to contest Fansteel's license transfer application. This conclusion is further supported by our longstanding recognition of ''the benefits of participation in our proceedings by representatives of interested states.''[16]

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[13] The information above on the twelve decommissioning funding sources was compiled from NRC Staff's Response at 4, Fansteel's Response at 4, and Fansteel's License Transfer Application, dated July 24, 2003, at 3-8.

[14] The ''LC Cash Reserve'' is comprised of the money, plus accrued interest, currently held in a Standby Trust. The Standby Trust was established to accept and hold the funds which were originally guaranteed by letters of credit that Fansteel had obtained to meet its financial assurance requirements for decommissioning under 10 C.F.R. § 40.36.

[15] *See* NRC Staff's Response at 4-5.

[16] *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Units 1 and 2), CLI-99-30, 50 NRC 333, 344 (1999).

B. Admissibility of Issues

Our rules specify that, to demonstrate that issues are admissible in a Subpart M proceeding, a petitioner must

> (1) set forth the issues (factual and/or legal) that petitioner seeks to raise,
> (2) demonstrate that those issues fall within the scope of the proceeding,
> (3) demonstrate that those issues are relevant to the findings necessary to a grant of the license transfer application,
> (4) show that a genuine dispute exists with the applicant regarding the issues, and
> (5) provide a concise statement of the alleged facts or expert opinions supporting petitioner's position on such issues, together with references to the sources and documents on which petitioner intends to rely.[17]

Mere ''notice pleading'' is insufficient under these standards. A petitioner's issue will be ruled inadmissible if the petitioner ''has offered no tangible information, no experts, no substantive affidavits,'' but instead only ''bare assertions and speculation.''[18] On the other hand, our requirement for specificity and factual support is not intended to prevent intervention when material and concrete issues exist.[19] For instance, if a license transfer application itself lacks necessary detail, a petitioner may meet its pleading burden by providing ''plausible and adequately supported'' claims that the data are either inaccurate or insufficient.[20] ''[I]f the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief'' would constitute sufficient information to show that a genuine dispute exists (under 10 C.F.R. § 2.714(b)(2)(iii), the Subpart G analogue of 10 C.F.R. § 2.1306). With these admissibility standards in mind, we turn now to Oklahoma's ''decommissioning funding assurance'' issue.

As noted above, Oklahoma questions ''whether the license transfer to an unfunded subsidiary constitutes [an] unreasonable risk to the public health and safety.''[21] Oklahoma is concerned that ''an unfunded, no asset, non-revenue generating company [can neither] ensure . . . adequate financial protection to the public [nor] respond to any dangers posed by the contamination on site.''[22]

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[17] *See* 10 C.F.R. § 2.1306; *Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 295 (2000), and references cited therein.

[18] *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000).

[19] *See Fitzpatrick/Indian Point 3,* CLI-00-22, 52 NRC at 295.

[20] *See Oyster Creek,* CLI-00-6, 51 NRC at 207.

[21] Oklahoma's Hearing Request at 7.

[22] *Id.* at 8.

Oklahoma is skeptical of Fansteel's promises to fund FMRI's decommissioning of the site with excess available cash and insurance proceeds.[23] According to Oklahoma, these promises are ''illusory at best and can be manipulated,'' with the result that the Muskogee site would not be remediated, would continue to contaminate Oklahoma's land and water, and would thus continue to pose an unreasonable risk to the public health and safety.[24] Oklahoma further claims that ''[i]f one analyzes the Disclosure Statement[[25]] and Re-Organization [*sic*] Plan submitted by Fansteel in the United States Bankruptcy Court, one can clearly see that the promises for funding are unlikely to be fulfilled and present many opportunities to legitimately escape performance by FMRI.''[26] Oklahoma indicates that it will rely on Fansteel's Reorganization Plan and contract law to support these arguments.[27] In sum, Oklahoma questions whether Fansteel has satisfied the ''financial assurance for decommissioning'' criteria set forth in 10 C.F.R. § 40.36. And, as a remedy, Oklahoma seeks denial of the application and retention of the *status quo,* on the ground that funding for the Decommissioning Plan would be assured if the license is retained by the post-bankruptcy Fansteel rather than transferred to FMRI as proposed.[28]

Although we agree with the basic premise underlying Oklahoma's issue, i.e., that ''decommissioning funding assurance'' is relevant to this proceeding, we nonetheless conclude that Oklahoma has failed to produce the necessary documentary evidence or expert opinion testimony to render its financial qualifications issue admissible. As the NRC Staff correctly points out, the Commission's specificity requirements demand more from Oklahoma than its ''one brief reference to Fansteel's Disclosure Statement and Reorganization Plan, with the conclusory statement that *if* one analyzes it one *could* clearly see that the promises for funding are *unlikely* to be fulfilled.''[29] Moreover, as Fansteel explains in its Response to Oklahoma's Request for Hearing, Oklahoma ''has the obligation not just to refer generally to voluminous documents (here totaling several hundred pages), but to provide analysis and supporting evidence as to why particular sections of those documents (here, the [Reorganization] Plan and Disclosure Statement) provide a basis for the contention.''[30] And even after both Fansteel and the NRC Staff pointed out the lack of specificity in Oklahoma's petition, Oklahoma made no

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[23] *See id.*

[24] *Id.*

[25] ''Disclosure Statement with Respect to Joint Reorganization Plan of Fansteel Inc. Et Al.,'' submitted July 24, 2003, in the United States Bankruptcy Court for the District of Delaware.

[26] *See* Oklahoma's Hearing Request at 14.

[27] *See id.* at 8.

[28] *See id.* at 13.

[29] NRC Staff's Response at 10 (emphasis in original).

[30] Fansteel's Response at 9.

effort to elaborate or explain its concerns in a Reply Brief, which it was authorized to file under 10 C.F.R. § 2.1307(b).[31]

A similar and even more basic omission is Oklahoma's failure to challenge the decommissioning funding assurance information contained in the Application itself. If Oklahoma believed that Fansteel's License Transfer Application lacks necessary detail, Oklahoma could have met its pleading burden by providing plausible and adequately supported claims that the data are either inaccurate or insufficient, i.e., by specifically identifying each failure and explaining why the data are flawed.[32] Oklahoma has not, however, even come close to meeting this burden.

Also, as noted above, Oklahoma seeks retention of the *status quo* on the ground that funding for the Decommissioning Plan would be assured if the license is retained by the post-bankruptcy Fansteel rather than transferred to FMRI as proposed.[33] Oklahoma, however, offers no support for its conclusion that Fansteel's retention of the license would provide any greater funding guarantee than the license's transfer to FMRI.

Oklahoma has provided no basis, in short, to proceed with a Subpart M hearing. Our decision to terminate the adjudicatory phase of this proceeding does not, however, equate to approval of Fansteel's license transfer application. As noted above, the adjudicatory and Staff reviews are parallel, but separate, aspects of our license transfer reviews.[34]

IV. CONCLUSION

For all these reasons, we *deny* Oklahoma's request for hearing and *terminate* the proceeding.

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[31] We have, in earlier license transfer proceedings, expressed our disapproval of petitioners who, despite being informed of the shortcomings of their petitions to intervene, nonetheless fail to correct them in a Reply Brief. *See Oyster Creek,* CLI-00-6, 51 NRC at 203-04 (''When the transfer Applicants' answer pointed out these defects [immateriality or conclusory presentation], NIRS filed no reply, although Subpart M authorized it to do so. . . . NIRS's unelaborated petition is plainly deficient under the detailed issue-pleading requirements of Subpart M''). *See also Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Units 1, 2, and 3), CLI-00-18, 52 NRC 129, 132 (2000) (after noting the lack of specificity and documentation in a petition for review, we observed with disapproval that ''[p]etitioners also did not take advantage of our rule, 10 C.F.R. § 2.1307(b), permitting them to reply to the transfer applicants' opposition to standing'').

[32] *See* p. 203, *supra.*

[33] *See* Oklahoma's Hearing Request at 13.

[34] *See* note 7, *supra.*

IT IS SO ORDERED.

For the Commission

ANDREW L. BATES
Acting Secretary of the Commission

Dated at Rockville, Maryland,
this 23d day of October 2003.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 50-336-OLA-2**

DOMINION NUCLEAR CONNECTICUT, INC.
(Millstone Nuclear Power Station,
Unit 2) **October 23, 2003**

The Commission reviews an Atomic Safety and Licensing Board decision that denied a request for hearing in this license amendment proceeding. The Commission affirms the Licensing Board's decision.

RULES OF PRACTICE: CONTENTIONS

As the Commission repeatedly has made clear, our contention rule is strict by design. It thus insists upon some reasonably specific factual or legal basis for a petitioner's allegations. Contention requirements seek to ensure that NRC hearings serve the purpose for which they are intended: to adjudicate genuine, substantive safety and environmental issues placed in contention by qualified intervenors.

RULES OF PRACTICE: CONTENTIONS

A licensing board threshold finding of standing does not render a petitioner's contention admissible. While a petitioner may have sufficient ''interest'' in a proceeding for standing, he or she may have no genuine material dispute to adjudicate, or no specific factual or legal support to bring an issue to hearing. A contention must allege, with some basis, that the licensee's application is deficient.

RULES OF PRACTICE: CONTENTIONS

To trigger an adjudicatory hearing, a petitioner must do more than submit conclusory allegations of a dispute with the applicant. A contention alleging that an application is deficient must identify each failure and the supporting reasons for the petitioner's belief.

RULES OF PRACTICE: CONTENTIONS

Petitioners may not seek an adjudicatory hearing to attack generic NRC requirements or regulations, or to express generalized grievances about NRC policies.

REGULATIONS: INTERPRETATION (10 C.F.R. § 50.36)

Simply because a set of procedural items was commonly inserted in technical specifications in the past does not mean that they must remain there, or that they should never be changed. Over time, the NRC has gained significant technical knowledge from extensive accident research that may, in particular instances, justify changing a plant's original design basis and amending the technical specifications.

MEMORANDUM AND ORDER

I. INTRODUCTION

In this decision we review an Atomic Safety and Licensing Board Memorandum and Order, LBP-03-12, 58 NRC 75 (2003), that denied a supplemented petition for leave to intervene and request for hearing filed by the Connecticut Coalition Against Millstone (CCAM). The Licensing Board found that CCAM had not submitted an admissible contention, and therefore denied its request for hearing. Pursuant to 10 C.F.R. § 2.714a, CCAM has appealed the Board's ruling. Both Dominion Nuclear Connecticut, Inc. (DNC), and the NRC Staff support the Board's decision. We affirm the decision, for the reasons we give below.

II. BACKGROUND

In this license amendment proceeding, DNC seeks to change several technical specifications. The changes are based on DNC's reanalysis of the Millstone Unit No. 2 limiting design basis fuel handling accidents (FHA) using an alternative

source term. Below we provide a description of the concepts underlying DNC's license amendment request, and then a short history of this proceeding.

A. Alternative Source Term

In 1999, the Commission amended its regulations to allow operating reactor licensees to replace the traditional source term used in ''design basis accident'' analyses.[1] The replacements are known as ''alternative source terms.'' ''Source term'' refers to a fission product release from the reactor core into containment.[2] Specifically, it is characterized by the magnitude and mix of the radionuclides released from the fuel, their physical and chemical properties, and the timing of their release.[3] An accident source term is used to assess the radiological consequences of postulated design basis accidents.

Many regulatory requirements rest on the postulated radiological consequences of design basis accidents.[4] Therefore, the accident source term serves as a design parameter for accident mitigation features, equipment qualification, control room operator radiation doses, and post-accident vital area access doses.[5] For example, the accident source term plays a large role in establishing the measurement range and alarm setpoints of some monitors and in the actuation of other plant safety features.[6] The design basis accident source term, therefore, is a ''fundamental assumption upon which a large portion of the facility design is based.''[7] As such, it is an integral part of the design basis because it ''sets forth specific values (or a range of values) for controlling parameters that constitute reference bounds for design.''[8] Licensees also use it to show compliance with applicable regulatory requirements.[9]

In 1995, recognizing significant advances in understanding the timing, magnitude, and chemical form of fission product releases that may result from severe nuclear power plant accidents, the Commission issued NUREG-1465, ''Accident

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[1] Statements of Consideration, Final Rule, ''Use of Alternative Source Terms at Operating Reactors,'' 64 Fed. Reg. 71,990 (Dec. 23, 1999) (''Final Rule''). Design basis accidents are not intended to be actual event sequences, but instead ''surrogates to enable deterministic evaluations of a facility's engineered safety features.'' *See* Regulatory Guide 1.183, ''Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors'' (July 2000) at 1.183-2 (''Reg. Guide'').

[2] *See* 64 Fed. Reg. at 71,991; *see also* 10 C.F.R. § 50.2.

[3] 64 Fed. Reg. at 71,991.

[4] *Id.*

[5] *Id.*

[6] *Id.*

[7] Regulatory Guide 1.183 at 1.183-6 (''Reg. Guide 1.183'').

[8] *Id.* at 1-183-1 n.2; *see also* 10 C.F.R. § 50.2.

[9] Final Rule, 64 Fed. Reg. at 71,991.

Source Terms for Light-Water Nuclear Power Plants.''[10] NUREG-1465 presented a revised representative accident source term for a boiling-water reactor and for a pressurized-water reactor. The intent of NUREG-1465 was to provide ''a more realistic source term based on the insights gained from extensive accident research activities.''[11] While the NRC decided that it would not be necessary to require all operating reactor licensees to reanalyze design basis accidents using the revised source terms, it concluded that ''some licensees may wish to use an alternative source term in [accident] analyses to support operational flexibility and cost-beneficial licensing actions.''[12]

Design basis accident analyses utilizing an alternative source term potentially could show a greater safety margin than previously calculated. As a result, particular equipment or procedures identified in the technical specifications may no longer need to be credited to maintain the required safety parameters. Revised accident analyses using an alternative source term therefore may support changes to technical specifications.

Since 1999, the NRC has permitted operating reactor licensees to revise the accident source term used in design basis radiological consequence analysis. A change to the design basis to use an alternative source term requires NRC review and approval in the form of a license amendment.[13] In addition, any proposed facility modifications or changes to procedures based upon an alternative source term should maintain ''sufficient safety margins . . . including a margin to account for analysis uncertainties.''[14]

Under 10 C.F.R. § 50.67, a licensee must provide specified information justifying a license amendment application to use an alternative source term. A licensee seeking to revise its accident source term must reanalyze the radiological consequences of all applicable design basis accidents previously assessed in the facility's safety analysis report,[15] and ''submit a description of the analysis inputs, assumptions, methodology, and results.''[16] Design basis accident analyses are ''intentionally conservative to compensate for known uncertainties in accident progression, fission product transport, and atmospheric dispersion.''[17] The Licensee must demonstrate that use of the alternative source term and any associated

[10] The goal of NUREG-1465 was to identify revised accident source terms to be used in the regulation of future light water reactors (LWRs), but the study also considered how revised source terms could be used at operating reactors. 64 Fed. Reg. at 71,992.

[11] *Id.* at 71,999; *see also id.* at 71,992.

[12] *Id.* at 71,999; *see also id.* at 71,992.

[13] *Id.* at 71,996.

[14] Regulatory Guide 1.183 at 1.183-4.

[15] 10 C.F.R. § 50.67(b).

[16] Final Rule, 64 Fed. Reg. at 71,996.

[17] *Id.* at 71,991; Reg. Guide 1.183 at 1.183-2.

proposed modifications will not result in accident conditions exceeding the criteria specified in section 50.67.[18] Those criteria include limits on radiological dose at the exclusionary area boundary (EAB), low population zone (LPZ), and the control room.[19] Regulatory Guide 1.183, ''Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors'' (July 2000), provides additional guidance.

B. History of This Proceeding

On September 26, 2002, DNC filed a license amendment application seeking to revise various technical specifications.[20] The proposed changes would modify requirements pertaining to containment closure and spent fuel pool area ventilation during movement of irradiated fuel assemblies.[21] As described generally in a *Federal Register* notice, the proposed changes would allow ''containment penetrations'' (e.g. equipment door, personnel air lock doors), to remain open during fuel handling:

> [The changes] will allow Containment penetrations, including the equipment door, to be maintained open under administrative control. The proposed changes will eliminate the requirements for automatic closure of Containment purge during Mode 6 fuel movement. The technical specifications associated with storage pool area ventilation will be deleted.[22]

DNC seeks these changes to enhance operational flexibility.[23]

The proposed changes are based on DNC's reanalysis of ''the limited design basis Fuel Handling Accident using an Alternative Source Term.''[24] In other words, DNC redid its design basis fuel handling accident analyses using an alternative source term, and, taking credit for the results of the reanalysis, proposed

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[18] *See* 10 C.F.R. § 50.67(b)(2); Final Rule, 64 Fed. Reg. at 71,994.

[19] It bears noting that section 50.67 also directs licensees seeking to use an alternative source term to calculate doses in Total Effective Dose Equivalent (TEDE) at the LPZ, EAB, and the control room. Previous dose calculations, associated with the traditionally used source term, focus on doses to the whole body and to the thyroid. Use of the TEDE, which assesses the impact of all relevant nuclides upon all body organs, replaces the single critical organ concept for assessing exposure. *See* Final Rule 64 Fed. Reg. at 71,993-94, 71,996-97.

[20] Letter, J. Alan Price, Site Vice President, DNC, to NRC Document Control Desk (9/26/02) (''Application''); *see also* Notice of Issuance of Amendments to Facility Operating Licenses, 67 Fed. Reg. 68,728, 68,731 (Nov. 12, 2002).

[21] 67 Fed. Reg. at 68,732.

[22] *Id.*

[23] *See* Transcript (June 5, 2003) at 76-77.

[24] 67 Fed. Reg. at 68,731.

to modify several existing requirements. According to DNC's application, under the proposed changes a fuel handling accident would not result in radiological doses — in the control room or to the public — in excess of the limits specified in 10 C.F.R. § 50.67 and Regulatory Guide 1.183.[25]

CCAM and the STAR Foundation jointly petitioned for a hearing to challenge the license amendment application.[26] In a Memorandum and Order, the Licensing Board found that CCAM, but not the STAR Foundation, had shown standing to intervene, and directed CCAM to file a supplemented petition with contentions.[27] CCAM then proffered a single contention claiming that the amendment has the potential for ''significant'' radiation releases:

> The amendment involves the potential of significant increase in the amounts of radiological effluents that may be released offsite and thus the amendment involves an adverse impact on the public health and safety and does involve a Significant Hazards Consideration.[28]

In LBP-03-12, the Licensing Board ruled the contention inadmissible. The Board found that CCAM had not provided support for its claims of a ''significant increase'' in effluents or an ''adverse impact'' on public health. In short, the Board stressed that CCAM had not, ''under the contention requirements of 10 C.F.R. § 2.714, specifically or directly challenged or controverted any particular part of the application with regard to any legal or factual issue that would make a difference in the outcome of this proceeding.''[29] The Board also noted that CCAM during oral argument had withdrawn the last portion of its contention, challenging the Staff's ''No Significant Hazards Consideration.''[30]

On appeal, CCAM essentially reiterates claims made earlier before the Board. The NRC Staff and DNC support the Board's decision. We affirm, for reasons cited by the Board and those we provide below.

III. ANALYSIS

To be admissible, a contention must specify the particular issue of law or fact the petitioner is raising and contain: (1) a brief explanation of the bases of the contention, and (2) a concise statement of the alleged facts or expert

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[25] *See, e.g.,* Application, Attachment 1, at 20; Attachment 2, at 11-16.

[26] Amended Petition To Intervene and Request for a Hearing (Dec. 12, 2002).

[27] LBP-03-3, 57 NRC 45 (2003).

[28] Petitioner, CCAM, Supplemented Petition and Contention (Mar. 10, 2003) (''Supplemented Petition'').

[29] LBP-03-12, 58 NRC at 92.

[30] *Id.* at 83 (*citing* Transcript at 30, 97-98).

opinion that support the contention and upon which petitioner will rely in proving the contention at the hearing.[31] The contention should refer to those specific documents or other sources of which the petitioner is aware and upon which he or she intends to rely in establishing the validity of the contention.[32] In addition, a contention must show that a ''genuine dispute'' exists with the applicant on a material issue of law or fact.[33]

As the Commission repeatedly has made clear, our contention rule is ''strict by design.''[34] It thus insists upon ''some reasonably specific factual or legal basis'' for a petitioner's allegations.[35] Contention requirements seek to ensure that NRC hearings ''serve the purpose for which they are intended: to adjudicate genuine, substantive safety and environmental issues placed in contention by qualified intervenors.''[36]

On appeal, CCAM presents the same claims it made before the Board. The appeal does not, however, as the NRC Staff points out, ''explain why the Licensing Board's decision was erroneous.''[37] CCAM's appeal — as was the case before the Board — rests entirely on general and speculative statements about an alleged ''significant increase in the amounts of radiological effluents that may be released offsite'' that will cause an ''adverse impact'' on public health and safety.[38] But as the Board found, CCAM never provided the necessary alleged facts or expert opinion to support its claims.

The proposed license amendment would alter several different technical specifications.[39] While CCAM lists all of them in its contention, the contention apparently only focuses upon those changes relating to containment penetration closure. Specifically, CCAM's claims appear to center upon proposed changes to

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[31] 10 C.F.R. § 2.714(b); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328 (1999).

[32] *Oconee,* CLI-99-11, 49 NRC at 333 (quotations and citations omitted).

[33] 10 C.F.R. § 2.714(b)(2)(iii).

[34] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001); *see also Oconee,* CLI-99-11, 49 NRC at 334-35.

[35] *Millstone,* CLI-01-24, 54 NRC at 359 (citation omitted).

[36] *Oconee,* CLI-99-11, 49 NRC at 334 (*quoting* H.R. Rep. No. 97-177, at 151 (1981)).

[37] NRC Staff's Brief Opposing CCAM's Appeal of LBP-03-12 (Sept. 11, 2003) (''Staff's Appeal Brief'') at 5.

[38] *See, e.g.,* Brief in Support of Notice of Appeal (Aug. 28, 2003) (''CCAM Appeal'') at 3-4.

[39] The proposed amendment would change the following technical specifications: TS 3.3.3.1, ''Monitoring Instrumentation, Radiation Monitoring''; TS 3.3.4, ''Instrumentation, Containment Purge Valve Isolation Signal''; TS 3.7.6.1, ''Plant Systems, Control Room Emergency Ventilation System''; TS 3.9.4, ''Refueling Operations, Containment Penetrations''; TS 3.9.8.1, ''Refueling Operations, Shutdown Cooling and Coolant Circulation — High Water Level''; 3.9.8.2, ''Refueling Operations, Shutdown Cooling and Coolant Circulation — Low Water Level''; and TS 3.9.15, ''Refueling Operations, Storage Pool Area Ventilation System.''

Technical Specification 3.9.4, titled ''Refueling Operations, Containment Penetrations.''

The proposed revision to Technical Specification 3.9.4 would allow ''[c]ontainment penetrations, including the personnel airlock doors and equipment door'' to be open during the movement of irradiated fuel, provided that administrative controls are in place to close manually ''any of these containment penetrations . . . within 30 minutes.''[40] It goes on to list a number of procedural requirements intended to ensure the capability to close all containment penetrations within 30 minutes, including the need for: (1) a review prior to opening any containment penetration, (2) designated individuals to be available to close their assigned openings, (3) closure plans for each containment opening, and (4) controls to ensure that cables and hoses that pass through a containment opening can be quickly removed.[41] The proposed technical specification further specifies that in the event of a fuel handling accident, ''each penetration, including the equipment door, *is* closed'' within 30 minutes.[42] If, however, ''it is determined that closure of all containment penetrations would represent a significant radiological hazard to the personnel involved,'' the technical specification provides that a decision ''may be made to forgo the closure of the affected penetration(s).''[43]

In support of the requested changes, DNC provided an analysis of the radiological consequences of a design basis fuel handling accident inside the containment. As a conservative measure, DNC's analysis assumes that the equipment door, personnel air-lock door and other penetrations are left ''open for the duration'' of a fuel handling accident.[44] More specifically, it assumes that containment penetrations are left open for a full 2 hours during an accident, such that ''all the available radioactivity is released over a 2 hour period.''[45] No credit is taken for containment boundary integrity or automatic closure of the containment purge valves.

Even if the containment penetrations are kept open for 2 hours during an accident, DNC's calculations show that the postulated radiological dose to an individual located at the exclusionary area boundary (EAB) or the low population zone (LPZ) would fall well within the limits specified under 10 C.F.R. § 50.67 and Regulatory Guide 1.183.[46] Although DNC's calculations show that offsite radiological doses would not exceed regulatory requirements — even without crediting containment closure — the proposed technical specifications nonetheless

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[40] *See* Application, Attachment 4, Insert G to p. B 3/4 9-1, at 1.

[41] *Id.; see also id.,* Attachment 2, at 7.

[42] *See id.,* Insert G to p. B 3/4 9-1, at 1 (emphasis added).

[43] *Id.; see also id.,* Attachment 2, at 8.

[44] *See id.,* Attachment 1, at 6.

[45] *Id.* at 18.

[46] *Id.* at 9, 12, 16, 20; *id.,* Attachment 2, at 15-16.

provide for closing containment penetrations within 30 minutes of a fuel handling accident.[47] DNC's application characterizes the 30-minute closure provision as a ''defense-in-depth measure to limit actual releases to the outside atmosphere [to even] much lower than assumed'' in the fuel handling accident analysis, and thus even further below regulatory limits.[48]

In challenging this license amendment, it was CCAM's burden to point out how the application is deficient. CCAM's contention, however, never challenges any of DNC's accident analyses, dose calculations, or its conclusion that postulated radiological releases from a fuel handling accident would not exceed applicable limits even *without* closing containment penetrations. Indeed, CCAM has not demonstrated any specific knowledge or understanding of the accident analyses provided in the application. Nor does its contention address the regulatory criteria for use of an alternative source term (found in 10 C.F.R. § 50.67), or the standards for technical specifications (found in 10 C.F.R. § 50.36).

Instead, CCAM's appeal — as does its contention — relies heavily upon the Licensing Board finding that the potential for offsite radiation releases sufficed for *standing*:

> In LBP-03-03, the Panel stated that if, after the proposed changes at issue are implemented, in fuel movement operations, ''containment penetrations are left open . . . rather than having automatic and other closing functions operable or in effect, it would seem self-evident that in the event of an accident there is a greater likelihood of a release of radioactivity that might have an impact on a person who lives near the plant.''
>
> The Panel also stated that ''if a fuel handling accident occurs during refueling, and the containment door is left open, common sense indicates that more radioactivity is going to escape the containment than if the doors were closed.''[49]

Contrary to CCAM's view, the Board's finding of *standing* — based on a construction of the intervention petition in a light most favorable to CCAM — does not equate to a Board finding that CCAM's contention was ''plausible as a matter of common sense.''[50] A threshold finding of standing does not render

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[47] While CCAM's claims focus upon fuel handling accidents inside the containment and the related controls on containment penetrations, DNC's application also analyzes a fuel handling accident in the spent fuel area. DNC's spent fuel pool accident analysis similarly takes no credit for containment or filtering of releases by the fuel handling building, and assumes ''a 2 hour unrestricted release.'' That analysis also finds that radiological releases to the exclusionary area boundary and low population zone would fall well below applicable limits. *See* Application, Attachment 1, at 10-12.

[48] *Id.* at 20; *see also id.,* Attachment 2, at 3, 15; Regulatory Guide 1.183 at B-3 n.3.

[49] *See* CCAM Appeal at 5 (internal citations omitted).

[50] *Id.* at 6.

contentions admissible.[51] While a petitioner may have a sufficient ''interest'' in a proceeding for standing, he or she may have no genuine material dispute to adjudicate, or no specific factual or legal support to bring an issue to hearing. As the Board explains, even a ''minor radiological exposure[ ] resulting from a proposed licensee activity'' can be enough for standing,[52] but a contention must allege, with some basis, that the licensee's application is deficient. This CCAM did not do.

CCAM's initial objection to the license amendment is that the amendment allows containment penetrations to be left open during fuel handling operations. But CCAM entirely ignores DNC's fuel handling accident analysis, which finds that even if containment penetrations are *left open* for *2 hours during an accident,* postulated offsite radiological doses would not exceed regulatory limits. In fact, according to DNC's analysis, the postulated offsite doses do not come close to exceeding applicable limits.[53]

DNC's analysis therefore concludes that having all penetrations closed during fuel handling is unnecessary to meet accident dose limits. The Petitioner provides no basis for questioning that conclusion. At oral argument before the Board, CCAM's counsel at best could only speculate about a potential for excessive radiation releases:

> [i]f there is a door . . . and that door is . . . left open, it seems to us to defy logic not to accept that there thereby exists great potential to allow the release of radiation to the site, to beyond the site, to the community at levels which are *very likely to be far beyond* the standards that Dominion apparently applied in its purported analysis supporting this application.[54]

At no point, however, did CCAM provide any expert opinion or other factual basis suggesting that DNC's accident analyses are inaccurate or apply the wrong criteria. To trigger an adjudicatory hearing, a petitioner must do more than submit '' 'bald or conclusory allegations' of a dispute with the applicant.''[55] A contention alleging that an application is deficient must identify ''each failure and the supporting reasons for the petitioner's belief.''[56]

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[51] *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 26 (2001).

[52] LBP-03-3, 57 NRC at 62 (citations omitted).

[53] *See, e.g.,* Application, Attachment 1, at 9, 12, 16.

[54] Transcript at 15 (emphasis added).

[55] *Millstone,* CLI-01-24, 54 NRC at 358 (*citing* Final Rule, ''Rules of Practice for Domestic Licensing Proceedings,'' 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989)).

[56] 10 C.F.R. § 2.714(b)(2)(iii).

Again relying on the Board's standing decision, CCAM stresses that DNC has ''acknowledged 'some increase in projected doses' assuming approval of the requested amendment[ ].''[57] But despite frequent claims of a ''significant'' increase in radiation to the community, CCAM never directly challenges DNC's accident analyses or dose calculations, never provides any accident or dose analysis of its own, and therefore never indicates how a ''significant'' radiological release may occur as a result of the proposed changes. At bottom, DNC's license amendment application concludes that under both the existing technical specifications (based upon the original source term), and the proposed technical specifications (based upon an alternative source term), the postulated offsite doses from a fuel handling accident are a relatively small percentage of applicable limits.[58] Nothing CCAM provided in this proceeding suggests otherwise. Additional dose comparisons provided by DNC at the Board's request only reinforce the notion that the increase in offsite accident doses is not significant. While there is a postulated increase in accident dose associated with the proposed technical specifications, the offsite doses to an individual located at the exclusionary area boundary or lower population zone remain well under the Regulatory Guide 1.183 criterion.[59]

CCAM, however, argues that *any* increase in dose, no matter the amount, and regardless of whether the change complies with NRC radiological dose requirements, is unacceptable:

> ADMIN. JUDGE COLE: Your objection is to any additional dose associated with this operation, this proposed operation.
>
> MS. BURTON: Any additional dose that could be . . . that could be obviated if the requirements in the technical specifications were maintained.
>
> ADMIN. JUDGE COLE: So it makes no difference that the doses [under the proposed technical specifications] are less than the applicable regulatory limits. It's the increase that you're objecting to.

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[57] CCAM Appeal at 3 (citation omitted).

[58] *See* Application, Attachment 1.

[59] *See* Affidavit of William Eakin, DNC, attached to Letter from David Repka, DNC, to Licensing Board (June 20, 2003). Pursuant to 10 C.F.R. § 50.67, DNC's accident dose analyses in support of the license amendment application are stated in terms of total effective dose equivalent (TEDE). As a result, the postulated offsite doses cannot be directly compared to earlier accident analyses that were based upon the original source term, for the latter applied a different dose methodology (whole body and thyroid). The Licensing Board requested DNC to provide a comparison of postulated offsite doses from a fuel handling accident under both the current technical specification and the proposed technical specification, but using the alternative source term and the TEDE dose methodology for both. *See* Transcript at 70, 78.

MS. BURTON: It's the increase and it's the removal of a barrier that logic dictates should [*sic*] be removed.[60]

But this kind of argument amounts to a collateral attack on NRC regulations governing public doses at operating nuclear plants.[61] This is impermissible. Petitioners may not seek an adjudicatory hearing ''to attack generic NRC requirements or regulations, or to express generalized grievances about NRC policies.''[62]

CCAM also argues that if, during an accident, radiation levels ''exceed permissible levels for worker exposure, the licensee would not be required to have the capability to close the door to prevent radiation leakage directly into the environment.''[63] That is incorrect. The proposed technical specifications *do* require the Licensee to be fully capable of closing all containment penetrations within 30 minutes of a fuel handling accident.

The proposed technical specifications also would allow DNC flexibility to forgo closing one or more penetrations within 30 minutes of an accident, but only in special circumstances where personnel involved would face a significant radiological hazard. CCAM's contention, and its argument on appeal, do not specify how allowing DNC more time than 30 minutes to close one or more penetration(s) to protect workers is unsafe, particularly given the accident analyses' conclusion that closing all penetrations within 30 minutes ''would not be necessary to assure that offsite doses are maintained below NRC requirements.''[64] DNC has explained that ''we don't need to [close the doors within 30 minutes] and cause somebody undue harm because it's not necessary to protect public heath and safety.''[65] CCAM's contention provides insufficient reason to litigate the matter at an NRC hearing.

In short, the provision in DNC's proposed amendment that would protect workers in some situations by allowing more time to close penetrations does not relax radiological dose limits for the public. All such dose limits would remain in full effect. In addition, as the NRC Staff indicated at oral argument before the Board, DNC already has the authority — granted by an NRC rule — to deviate

[60] Transcript at 44.

[61] *See* 10 C.F.R. § 2.758; *Millstone,* CLI-01-24, 54 NRC at 364.

[62] *Oconee,* CLI-99-11, 49 NRC at 334.

[63] CCAM Appeal at 2.

[64] Transcript at 52.

[65] *Id.* at 53.

from technical specifications in emergency situations to the extent necessary to protect public health and safety or to ''prevent injury to personnel.''[66]

CCAM and its counsel are no strangers to the NRC adjudicatory process. CCAM recently challenged another proposed technical specification change at the Millstone facility.[67] Then, as now, CCAM took the view that once an item originally is inserted in the technical specifications it must never be altered.[68] But, as we said in our prior *Millstone* case, ''[s]imply because a set of procedural items was commonly inserted in technical specifications in the past does not mean that they must remain there,''[69] or that they should never be changed. Over time, the NRC has gained significant technical knowledge from extensive accident research that may, in particular instances, justify changing a plant's original design basis and amending the technical specifications. An acknowledged goal of permitting licensees to use an alternative source term and modify a plant's design basis, including operating and maintenance procedures, is to reduce existing requirements that may be unnecessary to maintain sufficient safety margins and defense in depth.[70] CCAM's highly generalized concerns do not amount to a litigable ''contention'' under our strict pleading rule.

We reserve our hearing process for genuine, material controversies between knowledgeable litigants.[71] Throughout this proceeding, CCAM has shown little knowledge of the technical issues pertaining to the proposed license amendment. As support for its contention, for example, CCAM alluded generally, with no explanation, to an ''October 2000 report prepared by the Sandia National Laboratories.''[72] The cited report apparently is a decommissioning risk study focusing upon beyond design basis spent fuel pool accidents.[73] It has no bearing on the fuel handling events at issue in the proposed license amendment, as the

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[66] *See* 10 C.F.R. § 50.54(x); *see also* Statements of Consideration, ''Final Rule, Applicability of License; Conditions and Technical Specifications in an Emergency,'' 48 Fed. Reg. 13,966, 13,968 (Apr. 1, 1983); Transcript at 107. The purpose of section 50.54(x) is ''to provide flexibility in situations that cannot be anticipated.'' 48 Fed. Reg. at 13,968.

[67] *See Millstone,* CLI-01-24, 54 NRC 349.

[68] *See, e.g., id.* at 360-61; Transcript at 26.

[69] *Millstone,* CLI-01-24, 54 NRC at 360.

[70] *See, e.g.,* Final Rule, 64 Fed. Reg. at 71,992; Reg. Guide 1.183 at 1.183-4, 1.183-6.

[71] Our standing and contention rules are designed to screen out those without sufficient interest or knowledge to litigate safety or environmental issues meaningfully. *See, e.g., Oconee,* CLI-99-11, 49 NRC at 334-35, 338-39, 342. The absence of a hearing, of course, does not mean the absence of a safety issue. The NRC Staff reviews every license amendment application to ensure compliance with NRC safety rules.

[72] Supplemented Petition at 6.

[73] *See* NUREG-1738, ''Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants'' (Feb. 2001) (draft issued Oct. 2000).

Licensing Board correctly found.[74] CCAM's appeal no longer references this document and instead relies largely upon the Licensing Board's decision on standing.

Prior to the Board's standing decision, there is little indication that CCAM was even aware that the license amendment application centers on fuel handling accident analyses. CCAM's petition included an affidavit vaguely referencing ''licensee reports of radioactive effluent releases,'' alleged to ''document[ ] enormous routine emissions into the environment by the Millstone facility.''[75] The affidavit declares it ''unacceptable that these releases should increase by virtue of the present license amendment,'' and further declares the NRC's ''radiological emissions standards . . . arbitrary in nature.''[76] But beyond merely reciting *verbatim* a *Federal Register* notice on the proposed license amendment, CCAM's intervention petition demonstrated no knowledge of the actual changes proposed — changes that relate only to fuel movements in the containment building or spent fuel building, and analyses of fuel handling accidents, and not to the ''routine emissions'' from the facility referred to in the petition.

In short, it is evident that when CCAM first sought the hearing, it did not understand the nature of the amendment. Individuals or organizations invoking the NRC hearing proceeding should themselves demonstrate at least minimal knowledge of the particular actions that they wish to litigate.

IV. CONCLUSION

For the reasons given in this decision, the Commission *affirms* LBP-03-12.
IT IS SO ORDERED.

For the Commission

ANDREW L. BATES
Acting Secretary of the Commission

Dated at Rockville, Maryland,
this 23d day of October 2003.

[74] LBP-03-12, 58 NRC at 93.
[75] Declaration of Joseph H. Besade at 7.
[76] *Id.*

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
Dr. Charles N. Kelber
Lester S. Rubenstein

In the Matter of **Docket Nos. 50-369-LR**
50-370-LR
50-413-LR
50-414-LR
(ASLBP No. 02-794-01-LR)

DUKE ENERGY CORPORATION
(McGuire Nuclear Station, Units 1 and 2;
Catawba Nuclear Station, Units 1
and 2) **October 2, 2003**

A majority of the Licensing Board denies admission of a late-filed contention (including all eight subparts) sponsored by two Joint Intervenors, relating to severe accident mitigation alternatives (SAMAs) and station blackout risks in plants with ice condenser containments.

RULES OF PRACTICE: CONTENTIONS

The standards governing the admissibility of contentions, including late-filed contentions, are defined in 10 C.F.R. § 2.714. Failure of a contention to comply with any one of the specific requirements set forth therein is grounds for its dismissal. Further, contentions must be germane to the application pending before a licensing board and material to matters that fall within the scope of the proceeding for which the licensing board has been delegated jurisdiction.

RULES OF PRACTICE: CONTENTIONS (LATE-FILED)

Nontimely filings of contentions may be accepted, based on a licensing board's balancing of five factors, of which the second is the availability of other means whereby the petitioner's interest will be protected. Although available to a petitioner, commenting on the Staff's draft environmental impact statement is never an adequate substitute for litigating a contention, inasmuch as it ignores the participational rights enjoyed through such litigation — including the entitlement to present evidence and to engage in cross-examination.

RULES OF PRACTICE: DISCOVERY

Discovery with respect to a contention is not available until the contention has been admitted. *See* 10 C.F.R. § 2.740(b)(1).

REGULATORY GUIDES: APPLICATION

Standards stemming from regulatory guides are not ''rules or regulations'' subject to the prohibitions on challenge set forth in 10 C.F.R. § 2.758. They do not have the force of regulations. When challenged, they are to be regarded as the views of only one party — the Staff — although they are entitled to considerable *prima facie* weight.

TECHNICAL ISSUES DISCUSSED

The following technical issues are discussed: severe accident mitigation alternatives (SAMAs), station blackout-caused accidents, probabilistic risk assessment (PRA), accountability for uncertainties, source-term assumptions, hydrogen control through air-return fans and/or hydrogen igniters.

MEMORANDUM AND ORDER
(Ruling on Intervenors' Amended Contention 2)

This proceeding concerns the license renewal application (LRA) of Duke Energy Corporation (Duke), seeking approval under 10 C.F.R. Part 54 to renew the operating licenses for its McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2. In this Memorandum and Order, the Licensing Board rules on Amended Contention 2 of Intervenors Nuclear Information and Resource Service (NIRS) and Blue Ridge Environmental Defense League (BREDL). For the reasons set forth below, a majority of the Licensing

Board concludes that Amended Contention 2 is not admissible and must be dismissed.

I. BACKGROUND

In its June 13, 2001, application, Duke seeks to renew the operating licenses for (1) its McGuire Nuclear Station, Units 1 and 2, located some 17 miles north-northwest of Charlotte, North Carolina, for additional 20-year periods commencing in 2021 and 2023, respectively; and (2) its Catawba Nuclear Station, Units 1 and 2, located in South Carolina some 18 miles southwest of Charlotte, North Carolina, for additional 20-year periods commencing in 2024 and 2026, respectively. On January 24, 2002, the Licensing Board admitted two contentions submitted by the Intervenors, one relating to the anticipated use of plutonium mixed oxide (MOX) fuel in the Duke plants, and the other relating to severe accident mitigation alternatives (SAMAs) and station blackout risks in plants with ice condenser containments (including both McGuire and Catawba). Memorandum and Order (Ruling on Standing and Contentions), LBP-02-4, 55 NRC 49, 88-107, 118-30 (2002).

The admission of the MOX contention was reversed by the Commission in CLI-02-14, 55 NRC 278 (2002).[1] The admission of the SAMA contention was affirmed in part and reversed in part in July 2002, in CLI-02-17, 56 NRC 1, which was subsequently clarified in December 2002, in CLI-02-28, 56 NRC 373.

The Commission in CLI-02-28 also offered guidance to the Board in considering and ruling on the admitted SAMA contention, as well as on a pending amended version of that contention, Amended Contention 2, originally filed on May 20, 2002. As pointed out by the Commission, there has been a certain amount of confusion in this proceeding about the scope of the original SAMA contention, *see* CLI-02-28, 56 NRC at 378-81, 384, and this has extended to Amended Contention 2 as well. During a telephone conference on July 10, 2002 (Tr. at 923-1063), the parties responded to Board questions about the contention and its first four subparts. Thereafter, on July 23, the Commission issued CLI-02-17, which the Board and parties considered as it related to the amended contention during a telephone conference held July 29, 2002 (Tr. at 1067-1146). During the July 29 conference, based on certain statements of the Board related to CLI-02-17, the Intervenors withdrew the amended contention. Tr. at 1106. In response to a subsequent Duke Motion for Clarification of CLI-02-17 (Aug. 2, 2002), as well as a Board Memorandum and Order (Certifying Question to the Commission)

[1] We note that BREDL/NIRS has moved for us to reinstate Contention 1. [BREDL/NIRS] Request for Reinstatement of NIRS Contention 1 Regarding Environmental Impacts of MOX Fuel Use, filed April 11, 2003. We expect to rule on this request in the near future.

(Aug. 28, 2002), the Commission issued CLI-02-28, in which it, among other things, reinstated the amended contention. CLI-02-28, 56 NRC at 385.

The Board subsequently dismissed as moot the original Contention 2, *see* Order (Ruling on Duke Motion To Dismiss, Setting Briefing Deadlines, and Scheduling Oral Argument on Amended Contention 2) (Feb. 4, 2003). On March 18, 2003, after various delays occasioned by all parties,[2] the Board heard additional oral argument related to the amended contention (Tr. 1208-1476).

II. ANALYSIS

A. Contention Admissibility Requirements

The standards governing the admissibility of contentions are defined in 10 C.F.R. § 2.714. This rule provides in relevant part as follows:

> (a)(1) Any person whose interest may be affected by a proceeding and who desires to participate as a party shall file a written petition for leave to intervene. . . . The petition and/or request shall be filed not later than the time specified in the notice of hearing, or as provided by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the petition and/or request, or as provided in § 2.102(d)(3). Nontimely filings will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the petition and/or request, that the petition and/or request should be granted based upon a balancing of the following factors in addition to those set out in paragraph (d)(1) of this section:
>
> (i) Good cause, if any, for failure to file on time.
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> (ii) The availability of other means whereby the petitioner's interest will be protected.[3]

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[2] *See* Order (Ruling on Motion for Extension and Scheduling Telephone Conference) (Jan. 3, 2003), Order (Granting Request To Postpone and Reschedule Conference) (Jan. 17, 2003), and Order (Rescheduling Oral Argument on Amended Contention 2) (Feb. 20, 2003).

[3] With respect to each contention or subpart, the Staff asserts a failure to demonstrate good cause for untimeliness (a conclusion as to which we do not uniformly agree) and then, in balancing the factor about whether there are other available means for protection of BREDL/NIRS's interest, comments for most contentions that ''BREDL/NIRS may address its concerns regarding the non-renewal alternative [or protect its interest in an accurate and complete SAMA analysis] through comments on the Staff's DEISs.'' *See* Staff Response at 9 (entire contention), 12-13 (Contention 1), 15 (Contention 2), 18 (Contention 4), 20 (Contention 5), 22 (Contention 6), 23 (Contention 7), and 25 (Contention 8). Commenting on the Staff's DEIS, although clearly available during the time frame in question, is *never* an adequate substitute for litigating a contention, inasmuch as it ignores the participational rights enjoyed through such litigation — including the entitlement to present evidence and to engage in cross-examination. *Cf. Nuclear Fuel Services* (West Valley Reprocessing Plant), CLI-75-4, 1 *(Continued)*

(iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.

(iv) The extent to which the petitioner's interest will be represented by existing parties.

(v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

. . . ;

(b)(2) Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide the following information with respect to each contention:

(i) A brief explanation of the bases of the contention.

(ii) A concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing, together with references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion.

(iii) Sufficient information (which may include information pursuant to paragraphs (b)(2)(i) and (ii) of this section) to show that a genuine dispute exists with the applicant on a material issue of law or fact. This showing must include references to the specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief. On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report. The petitioner can amend those contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's document.

. . . ;

(d) . . . [A] ruling body or officer shall, in ruling on —

. . .

(2) The admissibility of a contention, refuse to admit a contention if:

(i) The contention and supporting material fail to satisfy the requirements of paragraph (b)(2) of this section; or

(ii) The contention, if proven, would be of no consequence in the proceeding because it would not entitle petitioner to relief.

NRC 273, 276 (1975) (rejecting a limited appearance statement as an adequate alternative means to protect an intervenor's interest); *Duke Power Co.* (Amendment to Materials License SNM-1773 — Transportation of Spent Fuel from Oconee Nuclear Station for Storage at McGuire Nuclear Station), ALAB-528, 9 NRC 146, 150 (1979) (also rejecting limited appearance statement).

As we have previously noted, the failure of a contention to comply with any one of these requirements is grounds for its dismissal. *See* LBP-02-4, 55 NRC at 64. In addition, contentions must be ''germane to the application pending before the Board,'' and ''material to matters that fall within the scope of the proceeding for which the licensing board has been delegated jurisdiction as set forth in the Commission's notice of opportunity for hearing.'' *Id.* at 68.

B. Rulings on Amended Contention 2

The Intervenors' Consolidated Contention 2, which the Board admitted on January 24, 2002, read as follows:

> The Duke SAMA analysis is incomplete, and insufficient to mitigate severe accidents, in that it
>
> (a) fails to include information from NUREG/CR-6427,[4] and
>
> (b) fails to include a severe accident mitigation alternative relating to Station Blackout-Caused Accidents, namely a dedicated electrical line from the hydroelectric generating dams adjacent to each reactor site.

LBP-02-4, 55 NRC at 128.

According to the Staff, subsequent to the admission of Consolidated Contention 2, Duke responded to Staff requests for additional information (RAIs) by addressing information contained in NUREG/CR-6427. Duke also evaluated the SAMA of installing a dedicated electric line from adjacent hydroelectric plants for the purpose of providing backup power to hydrogen igniters during station-blackout events. *See* Duke Power Co. Response to Requests for Additional Information [hereinafter RAI] (Jan. 31, 2002 (McGuire); RAI (Feb. 1, 2002) (Catawba). Contention 2, as set forth above, thus became moot, and we dismissed it on that basis.

The Intervenors' Amended Consolidated Contention 2, filed on May 20, 2002, is made up of eight subparts, preceded by the following introductory language:

> The Duke SAMA analysis is incomplete, and insufficient to mitigate severe accidents, in that it fails to provide an adequate discussion of information from NUREG/CR-6427 and a dedicated electrical line from the hydroelectric generating dams adjacent to each reactor site. In particular, the SAMA analysis contains the following deficiencies:

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[4] NUREG/CR-6427, Sandia National Laboratories, Albuquerque, New Mexico, ''Assessment of the DCH [Direct Containment Heating] Issue for Plants with Ice Condenser Containments,'' SAND99-2253 (Sept. 1999, published April 2000).

As emphasized in CLI-02-28, we must analyze each of these subparts, to determine its admissibility for litigation (in effect, as a separate contention). Additionally, as also stressed in CLI-02-28, it is appropriate for us to address the requisite issue of timeliness under 10 C.F.R. § 2.714(a)(1) as it relates to the entire amended contention. In that regard, when the Intervenors (through their Amended Contention 2) identified the issue as whether NUREG/CR-6427 had been taken into account adequately, they in effect filed new contentions.[5] In doing so, they defined the issue through its subparts as specifying the ways in which NUREG/CR-6427 had not been taken into account adequately (as distinguished from whether NUREG/CR-6427 had been considered at all by the applicant — the issue quoted above that was considered by the Commission in both CLI-02-17 and CLI-02-28). This was not merely a modification of the original contention, which we in fact dismissed as moot. This new contention with its eight subparts was *per force* late-filed, inasmuch as it was filed subsequent to the date when contentions initially had to be filed.

Whether there is adequate excuse or ''good cause'' for the late-filing, however, cannot be answered for the contention as a whole. Differing factors apply with respect to the timeliness of each of the eight subparts, based in part on when information giving rise to the contention became publicly available. In that connection, where information giving rise to the contention stems from RAI Responses (which were released on January 31-February 1, 2002), we regard contentions filed on May 22, 2002, the date established by the Board for the filing of such contentions, as demonstrating good cause for the delay in filing. Nonetheless, whether or not timely, a contention still has to satisfy other criteria (discussed above) to be admissible. To the extent relevant, we will discuss the timeliness of the eight subparts in conjunction with our discussion of whether the Intervenors have appropriately raised and supported any valid issues, as required under subsections (b) and (d) of 10 C.F.R. § 2.714. We turn now to the eight subparts of the amended contention, which are set forth separately below, following quotation of the language of each.[6]

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[5] We note that, as the Commission indicated in CLI-02-28, because of the ''widespread confusion'' over the original contention's scope, and ambiguous statements of the Board, ''the Intervenors may have had good cause to believe that filing an amended contention was unnecessary.'' CLI-02-28, 56 NRC at 384. CLI-02-28 also made it clear, however, that we were to assess the timeliness of the amended contention and each of its subparts. *Id.* at 385.

[6] In analyzing the Amended Contention 2, we have considered the following filings: (1) Blue Ridge Environmental Defense League's and Nuclear Information and Resource Service's [BREDL/NIRS] Amended Contention 2, dated May 20, 2002 (BREDL/NIRS Amended Contention 2); (2) Response of Duke Energy Corporation to Proposed Late-Filed Contentions, dated June 10, 2002) (Duke Response); (3) NRC Staff's Answer to [BREDL/NIRS] Amended Contention 2, dated June 10, 2002 (Staff Answer); (4) [BREDL/NIRS] Reply to Responses to Amended Contention 2 with Respect to the Issue of Timeliness, dated June 14, 2002.

Subpart 1

Failure to evaluate alternative of not renewing licenses

Severe Accident Mitigation Alternatives for McGuire and Catawba should include the alternative of not renewing the McGuire and Catawba reactors.

As support for this contention, Intervenors claim that NRC is required by regulation (not cited) to consider ''whether, in light of new information, it would be unreasonable to preserve the option of license renewal,'' and that neither Duke's ER nor its RAI responses address this issue. BREDL/NIRS Amended Contention 2 at 4.

The Applicant points out, however, that the ''no action'' alternative ''has already been addressed generically for license renewal in the generic environmental impact statement.'' *See* Duke Response at 19; NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, § 8.2 (1996). More specifically, the Applicant and Staff each note that the ERs previously submitted to NRC for the McGuire-Catawba license renewal application each specifically address the ''no action'' alternative (*see* McGuire ER §§ 7.3-7.5; Catawba ER §§ 7.3-7.5) and the DEISs for both facilities also consider the ''no action'' alternative.[7]

For its part, the Staff points out that this contention lacks any legal basis and, indeed, is contrary to the purpose and intent of a SAMA analysis, which ''contemplates consideration of plant design and procedural improvements that will mitigate the impact of accidents that may occur during the period of licensed operation.''[8]

As both the Applicant and Staff stress, the ERs were publicly available at the time contentions were initially required to be filed in this proceeding. Submission of this contention over 11 months later is thus untimely. Further, as the Applicant correctly points out, the contention is beyond the permissible scope of contentions open for consideration at this time. Moreover, as the Applicant and Staff also argue, this contention exceeds the proper scope of Consolidated Contention 2; is untimely; and is, in any event, baseless, so as to be inadmissible. Accordingly, we reject the contention.

[7] Duke Response at 19; Staff Answer at 12.

[8] Staff Answer at 12.

Subpart 2

Failure to provide adequate support for conclusory results in RAI responses

Duke has not supported its SAMA analysis by publication of its PRA (Probabilistic Risk Assessment).

As support for this contention, Intervenors rely on federal case law on the requirement of the National Environmental Policy Act (NEPA) for agencies to take a ''hard look'' at the environmental factors affecting a decision on a major federal action. They argue that ''[m]erely to publish the summary results of the PRA [probabilistic risk assessment]'' is insufficient, that ''the analysis of impacts and the costs and benefits of mitigative measures depends on a PRA and that ''it is not possible to evaluate the adequacy of the analysis without access to the PRA.'' BREDL/NIRS Amended Contention 2 at 4-5. Stating that a ''PRA relies on a myriad of assumptions which may affect the outcome of the analysis,'' the Intervenors assert that it is ''not possible to evaluate the adequacy of the analysis without access to the PRA,'' in effect arguing that the evaluation required under the ''hard look'' doctrine has not been done — and is essentially impossible — without reference to the entire PRA. *Id.*

The Intervenors further assert that all levels of the PRA must be disclosed and considered because, among other things, ''conditional containment failure frequency is different for high and low pressure core damage sequences''; ''NUREG/CR-6427 assume[d] that 90% of the time the hot leg will fail[,] resulting in a low-pressure sequence[,]'' and thus comparison of this with the fraction of sequences in which low pressure results in Duke's PRA is necessary; and examination of the PRA's first level is necessary both to evaluate the second two levels and ''to understand whether the initiating event frequencies are appropriate for each containment failure mode.'' *Id.* at 5 n.2. Citing examples of Duke's use of qualitative (as opposed to quantitative) and/or nonspecific language and information, the Intervenors argue that Duke's failure to provide the PRA in support of its SAMA analysis prevents any meaningful evaluation of relevant factors.

Examples of such qualitative, nonspecific language and information provided by the Intervenors include: (a) Duke stating only that ''data changes in Revision 2 *improve* diesel generator reliability, resulting in reduced core damage frequency ('CDF') caused by loss of offsite power ('LOOP'), tornadoes and earthquakes''; (b) Duke's reevaluation of failure rates caused by interfacing system loss-of-coolant-accidents (ISLOCA) and indicating that these are considered by Duke to be ''an *important* risk contributor''; (c) Duke's use, in its January 31, 2002, response to RAI 1a, of qualitative and relative terms such as ''significantly reduced'' and ''slight increase''; (d) Duke's provision of tables containing only

summary estimates of core damage and containment failure frequencies; (e) Duke's qualitative explanation for the anomaly of the ISLOCA containment failure frequency being 27 times higher after Revision 2; (f) Duke's statement in its January 31, 2002, response to RAI 1b that ''*in general,* the review team [that reviewed the IPE and PRA] found that the Duke PRA processes are sufficient to support applications requiring risk significance determination''; (g) Duke's statement that its SAMA analysis was based partially on Revision 3 and partially on Revision 2 of the PRA, with no indication as to which one was used for which parameters or why; (h) Duke's statement in its January 31, 2002, response to RAI 1c that CDF induced by steam generator tube rupture (SGTR) was found after Revision 3 to be 7.8E-10 rather than 7.0E-6 as before; and (i) the absence in Duke's analysis of fully documented assumptions and inputs, without which the Intervenors argue there can be no meaningful evaluation of Duke's consequence analysis. BREDL/NIRS Amended Contention 2 at 5-6 (emphasis added).

In response, the Applicant characterizes this contention as an argument that the SAMA analysis is not complete because Duke has not published its PRAs.[9] It claims that there is no requirement that PRAs be published.[10] Further, it asserts that, if the contention is a challenge to the PRAs, it is untimely and, in any event, inadmissible in this proceeding.[11] Finally, both the Applicant and the Staff characterize this contention as in the nature of a discovery dispute, adding that discovery is not available until a contention has been admitted.[12]

The Board agrees that this ''contention'' or subpart of Amended Contention 2 is indeed in the nature of a discovery dispute. Discovery, of course, is not available until a contention has been admitted — which this one has not been. *See* 10 C.F.R. § 2.740(b)(1); *see also Wisconsin Electric Power Co.* (Koshkonong Nuclear Plant, Units 1 and 2), CLI-74-45, 8 AEC 928 (1974); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 467 n.12 (1982) (''discovery on the subject matter of a contention [can] be obtained only after the contention [has] been admitted to the proceeding''); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 335 (''[a]lthough in quasi-formal adjudications like license renewal an intervenor may still use the discovery process to develop his case and help prove an admitted contention, contentions shall not be admitted if at the outset they are not described with reasonable specificity or are not supported by 'some alleged fact or facts' demonstrating a genuine material dispute'').

Furthermore, NRC regulations do not require Duke to publish its entire PRA, and the Intervenors fail to provide any legal support for that proposition. More-

[9] Duke Response at 21.

[10] *Id.* at 21-22.

[11] *Id.* at 21.

[12] *Id.* at 22, 24; Staff Answer at 13 n.13.

over, as a factual matter, Duke submitted portions of its PRA in 1991, 1992, and 1994 for Staff review, and these submittals (and the Staff's reviews) are, indeed, publicly available. These publications include data sought by BREDL/NIRS. For example, the increase in Emergency Diesel Generator reliability is supported by the raw data in Table 3.1.5.1-1 of the published summary of revision 2 of the McGuire PRA. In its RAI responses, Duke provided supplementary, quantitative, and qualitative information regarding changes to its PRAs (although it did not attach the full PRAs). The Intervenors have not established there is a genuine dispute as to why this information is inadequate to assure the reliability of Duke's PRAs. For the foregoing reasons, absent any legal requirement for publication of the PRAs, this contention (subpart 2 of Amended Contention 2) is rejected.

Subpart 3

Failure to support conclusions regarding frequency of accident contributors

Duke's RAI answers make unsupported assertions that the frequency of Station Blackout (''SBO'') and other events leading to core damage and containment rupture is lower than previously predicted. Duke's failure to support these assertions violates the requirement under NEPA that an environmental analysis must take a ''hard look'' at environmental consequences of proposed actions and the costs and benefits of alternatives. *Foundation on Economic Trends v. Heckler,* 756 F.2d 143, 151 (D.C. Cir. 1985).

The Intervenors explain that ''NUREG/CR-6427 asserts that no ice condenser plant is inherently robust to all credible DCH or hydrogen combustion events in station blackout,'' and that ''the frequency of SBO events is an important factor in determining the value of the benefit of SAMAs.'' BREDL/NIRS Amended Contention 2 at 7. They claim that Duke asserts in its RAI responses ''that the frequency of SBO events is lower than previously calculated [but] provides only summary information [concerning] its calculations regarding SBO frequency.'' *Id.* Further, they fault Duke for providing insufficient information to permit a determination of the extent to which accident contributors such as earthquakes and floods were taken into account, or whether ''recent studies that have identified recirculation sump clogging in PWRs following a loss-of-coolant accident as a generic safety issue, GSI 191,'' were taken into account. *Id.* The Intervenors assert that, lacking such information, it is impossible to determine whether Duke has taken the requisite ''hard look'' required under NEPA.[13]

The Applicant questions the technical adequacy of this contention, asserting that the Intervenors have proffered no adequate ''basis for challenging either

[13] BREDL/NIRS Amended Contention 2 at 7-8.

the SBO frequency used by Duke [in] its RAI responses or the cost/benefit assessments of the relevant SAMAs.'' Duke Response at 25. The Applicant claims that the contention is not in fact based on new information in the RAI responses and thus is outside the scope of the Licensing Board's limited authorization for late-filed contentions based on such information. *Id.* Duke further indicates that the cited information in the RAI responses is not ''new,'' inasmuch as it was based on the ''Staff's review of the SAMA analyses in the McGuire and Catawba license renewal ERs.'' *Id.* at 25-26. For the same reason, the Applicant regards the contention as untimely, inasmuch as the information in the ERs was included in docketed correspondence (publicly available) at the time contentions initially were required to be filed.[14]

The Staff claims that ''BREDL/NIRS does not indicate which specific RAI responses it refers to, nor does [it] identify where the previous predictions it refers to can be found.'' Staff Answer at 16. The Staff asserts that these deficiencies alone are grounds for denying the contention, citing *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 and 2), LBP-85-20, 21 NRC 1732, 1741 (1985), *rev'd and remanded on other grounds,* CLI-86-8, 23 NRC 241 (1986) and 10 C.F.R. § 2.714(b)(2). *Id.* The Staff further observes that the ''hard look'' required by NEPA must be taken by NRC, not Duke (as claimed by the Intervenors).[15]

The Staff reiterates the Applicant's claim that the ERs described a number of risk reduction measures and ongoing initiatives to reduce the risk of operation further. *Id.* Additionally, the Staff claims that, as also explained in Duke's RAI responses, ''improved diesel generator performance at McGuire accounts for the decrease in SBO frequencies calculated using Revision 2 of the McGuire PRA versus Revision 1.'' *Id.* Thus, according to the Staff, the contention fails to generate a genuine dispute of material fact concerning the application. *Id.* Further, the Staff views the contention as untimely. *Id.* at 16-17.

The Board notes deficiencies in the contention itself, as pointed to both by the Applicant and the Staff. The contention makes statements that, based upon the record, are not accurate. The circumstance that much of the so-called missing

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[14] With regard to flooding, for example, Duke claims that its RAI responses for Catawba indicate that it addressed the specific issue of a SAMA to build a flood wall around transformers in the turbine building to address an SBO issue for Catawba. Duke adds that in the draft SEIS for Catawba, this is a particular SAMA for Catawba that the Staff identified as potentially cost-beneficial (*citing* Catawba Draft SEIS at 5-28). Thus, in this regard, BREDL/NIRS have obtained all the relief that could be granted if their contention were admitted and litigated — if already cost-beneficial, the degree to which a SAMA may be cost-beneficial is essentially meaningless, particularly where the relief cannot be mandated in a NEPA proceeding. (Duke explains that, for McGuire, the transformers are not physically located in an area susceptible to floods, so that the issue of a flood wall is not relevant; thus, this SAMA is not addressed in the draft McGuire SEIS.) *See* Duke Response at 29.

[15] Staff Answer at 16.

information was in fact included in the ERs significantly undercuts the validity of this contention as well. Further, the inclusion of this information in the ERs indicates that the contention could have been raised earlier. Similarly, the failure of the contention to rely on new information in the RAI responses, rather than preexisting information in the RAI responses derived from other sources available earlier, evidences the untimeliness of this contention. For all of these reasons, the contention is rejected.

Subpart 4

Failure to justify departures from NUREG/CR-6427

Duke does not incorporate assumptions used in NUREG/CR-6427, or justify its failure to do so.

The Intervenors point to an RAI response by Duke that acknowledges that it has calculated lower containment failure probabilities than were found in NUREG/CR-6427, and that the primary difference between the two stems from ''the assumption used about the amount of hydrogen assumed to be in the containment.''[16] Further differences are assertedly acknowledged by Duke, but not justified. BREDL/NIRS maintain that NUREG/CR-6427 was an ''extremely careful and detailed study'' and that, before discarding the NUREG/CR-6427 assumptions, ''Duke must do more than baldly observe the existence of the difference or an opinion that the Sandia Report was too conservative.''[17]

Both the Applicant and Staff assert that these claims are both incorrect and unfounded, Duke claims that its responses to both the McGuire and Catawba RAIs included a comparison of the conditional early containment probability for each plant with the corresponding probability given in NUREG/CR-6427. Duke Response at 32. According to Duke, the RAI Responses are based on each plant's PRA, which considers both internally and externally initiated events, and that the RAI Responses also included a discussion of the models and assumptions used in each plant's PRA that account for the major differences.[18] Duke adds that there is no regulatory basis for requiring a ''justification'' of these results, nor have the Intervernors provided such a regulatory basis or other source for such a requirement. The Applicant concludes that ''this proposed contention, even if prove[d], ''would be of no consequence in the proceeding' because it would not

[16] BREDL/NIRS Amended Contention 2 at 8-9.

[17] *Id.* at 9.

[18] Duke Response at 32; McGuire RAI Response at 7; Catawba RAI Response at 6.

entitle Intervenors to any relief (i.e., any further SAMA evaluation) and thus fails to satisfy Section 2.714(d)(2)(ii).''[19]

We agree with the arguments of the Applicant and Staff. In particular, we note that NRC's regulations do not require an applicant to adopt the assumptions and findings of a study produced by an independent contractor of the Staff. Accordingly, we reject Amended Contention 2, Subpart 4.

Subpart 5

Failure to take adequate account of uncertainties

Duke has failed to take adequate account of uncertainties and their effect on the results of its analysis. To a significant extent, no uncertainty analysis has been performed. To the extent uncertainty analysis has been performed, Duke has not taken uncertainties into account in an adequate manner.

BREDL/NIRS provides separate bases for the two separate claims in this contention. First, with regard to the asserted failure to take adequate account of uncertainties, the Intervenor cites statements in the RAI responses to the effect that uncertainty analyses have not been developed or that they are beyond the scope of the current PRA program at Duke. BREDL/NIRS Amended Contention 2 at 10. The Intervenors claim that ''Duke's failure to perform a complete uncertainty analysis fatally undermines the credibility of its SAMA results.''[20]

In support of this claim, Intervenors cite cases cautioning agencies not to use misleading information in their Environmental Impact Statements (EIS), as well as CEQ regulations requiring an EIS to address ''[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.'' *Id.* at 10-11 (*quoting* 40 C.F.R. § 1508.27(b)(5)). In addition, BREDL/NIRS cites ''NRC regulations requir[ing] that a Draft EIS must, to the fullest extent practicable, quantify the various factors considered.'' *Id.* at 11 (*quoting* 10 C.F.R. § 51.71(d)). ''To the extent that environmental factors may not be quantifiable, they must at least be described qualitatively.'' *Id.*

Further, BREDL/NIRS cites an NRC regulatory guide for the preparation of ERs in license-renewal cases, which instructs licensees to follow the methodology of NUREG/BR-0184, ''Regulatory Analysis Technical Evaluation Handbook'' (January 1997). *Id.* ''Section 5.4 of NUREG/BR-0184 specifically calls for the preparation of uncertainty analysis where practical within the bounds of the state-of-the-art.'' BREDL/NIRS Amended Contention 2 at 11. ''Draft Regulatory Guide DG-1110, *An Approach for Using Probabilistic Risk Assessment in Risk-*

[19] Duke Response at 33.

[20] BREDL/NIRS Amended Contention 2 at 10.

Informed Decisions on Plant-Specific Changes to the Licensing Basis (June 2001), [also assertedly] sets forth the 'expectation' that '[a]ppropriate consideration of uncertainty is given in analysis and interpretation of findings, including using a program of monitoring, feedback, and corrective action to address significant uncertainties.' '' BREDL/NIRS Amended Contention 2 at 11.

The Intervenors go on to describe that the Regulatory Guide sets forth three types of uncertainties — model uncertainty, parameter uncertainty, and completeness uncertainty — and, for each type, a method for reporting on the nature and significance of the uncertainty. *Id.* at 12. ''Appendix A of DG-1110 sets forth basic requirements for a 'technically defensible' PRA'' (*id.* at 39), and, in a summary table, DG-1110 ''calls for 'identification of sources of uncertainty and their impact on the results' at each level of the PRA'' (*id.* at 49-51). BREDL/NIRS Amended Contention 2 at 12. Finally, BREDL/NIRS also cites NUREG/BR-0058, *Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission* (June 2000) at 12 as indicating the importance of uncertainty analyses. *Id.*

For its second basis, the Intervenors claim that, ''[t]o the extent Duke has performed uncertainty analysis, it has not taken uncertainties into account in an adequate manner,'' 'undermin[ing] the credibility of Duke's SAMA analyses.'' *Id.* BREDL/NIRS points out a discrepancy between Duke's use of annual risk to the population and mean value of annual risk to the population, and an inconsistency with the Staff's assertion in that ''a factor of three difference between most costs and benefits of mitigative measures is an insufficient margin to provide assurance that an appropriate cost-benefit analysis is being presented.'' *Id.* at 12-13.

Both the Applicant and Staff claim that this contention lacks an adequate legal basis — that there is no NRC requirement mandating the submission by an applicant of a comprehensive uncertainty analysis in this situation. Duke Response at 36; Staff Answer at 19. Moreover, Duke claims (and the Staff confirms) that it performed a quantitative uncertainty analysis for Level 1 of its PRA, and a qualitative evaluation of uncertainties for Levels 2 and 3 of its PRA.[21] Both Duke and the Staff claim ''[t]his level of . . . analysis is appropriate and consistent with the Staff's regulatory guidance, which suggests (but does not legally require) the use of uncertainty analyses,'' and then ''only 'where practical within the bounds of the state-of-the-art.' '' Staff Answer at 19; Duke Response at 37; NUREG/BR-0184, ''Regulatory Analysis Technical Evaluation Handbook, § 5.4 (January 1997).[22] Furthermore, the Applicant advises that, although it ''did

[21] Catawba RAI Responses, Attachment 1 at 4; McGuire RAI Responses, Attachment 1 at 5.

[22] Duke comments that ''[o]ne source of potential confusion in Intervenors' presentation is that Duke's response to RAI 2 for McGuire was not identical to its response to RAI 2 for Catawba, and

(Continued)

not develop an uncertainty analysis for the Catawba PRA Revision 2b Level 1 (since this was an ''interim analysis''), Duke did develop an uncertainty analysis for the McGuire PRA Revision 2 Level 1.''[23] Finally, Duke asserts that the Intervenors fail to mention that part of Duke's RAI responses (for both reactors) that '' 'conclusions of the [SAMA] analysis would have been unlikely to change if a comprehensive uncertainty analysis could have been included,' given the large margin (a factor of 3) between the estimated costs and benefits as evaluated in both the McGuire and Catawba SAMAs.''[24] The Staff adds that Duke's factor of 3 ''ignores the conservatism inherent in Duke's calculations'' — namely, ''the costs to implement SAMAs are generally underestimated and the risk reduction associated with each SAMA is overestimated.''[25]

The Board here finds that there is no NRC requirement for uncertainty analyses in the situation before us. Further, it is apparent that Duke has satisfied applicable NRC guidance with respect to such uncertainty analyses and, indeed, with respect to McGuire, has performed such an analysis. With respect to Catawba, Duke has performed a qualitative analysis. Moreover, with respect to uncertainty analyses, the contention could have been filed earlier — the ERs on which it was based were issued at the time the original contentions were submitted — and no excuse for the late-filing has been proffered.[26] In these circumstances, the Board rejects the portion of the contention that challenges the absence or lack of uncertainty analyses.

The second portion of the claim in this contention is that, to the extent that Duke has performed uncertainty analyses, it ''has not taken uncertainties into account in an adequate manner.'' BREDL/NIRS Amended Contention 2 at 10. BREDL/NIRS asserts that ''[t]his failure undermines the credibility of Duke's SAMA analysis.'' *Id.* at 12. As basis, the Intervenors give an example:

> [I]n its response to RAI 2, Duke states that the 95th percentile value of the McGuire PRA Rev. 2 core damage frequency is 1.3E-04, or 2.7 times the point estimate of

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the Intervenors do not consistently differentiate between the two responses in their discussion.'' Duke Response at 35. The Board notes that the so-called discrepancies between the two RAI 2 responses was one of the bases cited by Intervenors as a basis for this contention.

[23] *Id.*

[24] *Id.* (*quoting* McGuire RAI Response at 5; Catawba RAI Response at 4).

[25] Staff Answer at 20.

[26] We note that, additionally, BREDL/NIRS offered, during oral argument on March 18, 2003 (Tr. 1385), a so-called Exhibit 5, titled ''Technical Assessment Summary for GSI-189: Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident.'' This document, prepared by the Staff, contains in Table 2 published uncertainty data from the PRAs in question, including both the McGuire and Catawba PRAs. With this information in hand, we fail to perceive why BREDL/NIRS did not at that time withdraw the portion of Subpart 5 that asserts the lack of any uncertainty analyses.

> the core damage frequency (4.9E-05) used in the SAMA analysis. Duke goes on to point out that NUREG-1150 analysis implies that the 95th percentile value of the 50-mile population dose is approximately 5 times the mean value, an uncertainty ''representative of the uncertainties of the McGuire analysis.'' Thus the annual risk to the population within 50 miles derived from the 95th percentile values could be over ten times higher than the value obtained from the mean values. This alone contradicts the NRC Staff's assertion that a factor of three difference between most costs and benefits of mitigative measures ''provide ample margin to cover uncertainties in the risk and cost estimates (draft NUREG-1437, p. 5-27).''

Id. at 12-13. BREDL/NIRS conclude that,

> [b]ecause variations in certain parameters can result in a variation in consequences such as total population dose of an order of magnitude or more, it is clear that even a factor of three differences between costs and benefits of mitigative measures is an insufficient margin to provide assurance that an appropriate cost-benefit analysis is being presented.

Id. at 13.

Duke points out that the above-quoted statement is incorrect, that ''[t]he uncertainty in the population risk results of NUREG-1150 includes all uncertainties in the Level 1 and Level 2 analyses,'' and thus that ''it is not correct to multiply together the two uncertainty values, and cite the product, as this results in an overstatement of the uncertainty associated with the population risk results.'' Duke Response at 39. Thus, according to Duke, ''no valid basis is provided for the Intervenors' conclusion that the annual risk to populations within 50 miles derived from the 95th percentile values 'could be over ten times higher than the value obtained from the mean values.' '' *Id.* Duke goes on to demonstrate that the incorrectly calculated risk calculations provide no basis for contradicting Duke's and the Staff's calculations that most of the SAMAs would clearly not be cost beneficial because their costs are substantially higher (typically by a factor of three or more) than the dollar equivalent of the associated benefits.[27] Duke adds that the Staff has concluded that a factor of two or more ''is considered to provide ample margin to cover uncertainties in the risk and cost estimates.''[28]

The Board has reviewed the BRDL/NIRS basis for this portion of Contention 5 and concludes that the Intervenors have proffered no valid basis for it. Further, the Board concludes that Intervenors have presented a misleading treatment of Duke's responses to RAI 2, and that they have failed to demonstrate any ''new information'' in those RAI responses bearing upon this contention. These

[27] Duke Response at 39-40.

[28] *Id.* at 40.

deficiencies mandate that this proffered basis for Contention 5 be rejected. Intervenors have also failed to show that a genuine dispute exists on a material issue of law or fact, as required by 10 C.F.R. § 2.714(b)(2)(iii). This portion of Amended Contention 2, subpart 5, is accordingly rejected.

Subpart 6[29]

Failure to use reasonably conservative values in calculating accident consequences

Even assuming that Duke's use of point estimates is acceptable, Duke's SAMA analysis understates the consequences of accidents, because it relies on assumptions that are unreasonable and unsupported.

The Intervenors here claim that ''Duke [has made] a number of assumptions about the nature of radioactive releases during accidents that are unrealistic and inconsistent with known experience.'' BREDL/NIRS Amended Contention 2 at 13. They provide examples in three areas: (1) plume spreading factor, (2) source terms, and (3) region for dose calculations. *Id.* at 13-16.

Specifically with respect to the plume spreading factor, the Intervenors rely on ''the effect of using [revised] assumptions regarding spreading of the radioactive plume following a large [prolonged] radioactive release,'' as set forth in NUREG-1738, ''Technical Study of Spent Fuel Accident Risk at Decommissioning Nuclear Power Plants,'' App. 4A at A4A1 (2002), which is described as ''increas[ing] long-term consequences (i.e., population dose) by up to 60%.'' *Id.* at 13. BREDL/NIRS claim that ''[n]either Duke's RAI responses nor the GEIS specifies the plume spreading parameters used by Duke in its consequence analyses. *Id.*

With regard to source terms, the Intervenors reference a Staff determination that ''Duke's source terms . . . for . . . major release categories [are] in *reasonable agreement* with estimates from NUREG-1150[30] for the closest corresponding release scenarios.'' *Id.* at 14. BREDL/NIRS claim that ''Duke has made source-term assumptions that lead to considerably smaller population doses than those predicted from NUREG-1150-derived source terms. *Id.* The Intervenors provide an example: the release category for early containment failure. They claim that ''the revised source term leads to a 50-mile population dose factor of

[29] This subpart is incorrectly labeled as subpart or contention ''7'' in BREDL/NIRS Amended Contention 2 at 13. Given the presence of another subpart or contention labeled as ''7,'' which we shall consider below, and given the absence of any contention labeled as ''6,'' we shall treat this contention as #6.

[30] NUREG-1150, ''Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants'' (Dec. 1990).

approximately 5 greater than the worst-case source term used by Duke. . . .'' *Id.* at 15.

With regard to the region for dose calculations, the Intervenors claim that ''[t]he restriction of the region to a 50-mile radius for the purposes of calculating population dose is technically indefensible and can only be regarded as a mechanism for artificially limiting the benefits of mitigative measures.'' *Id.* at 16. They assert that total population dose nearly doubles as the radius expands from 50 to 200 miles. *Id.*

Duke would dismiss this contention because it is not in any way based on RAI responses (which were to have been the foundation for late-filed contentions) and could have been filed earlier, when proposed contentions were initially filed. Duke Response at 41-42. Duke observes that BREDL/NIRS presented no justification for its late filing. *Id.* Duke asserts that it ''used the MACCS2 computer code, updated meteorological data, and projected site specific population estimates to generate the severe accident person-rem risk results for the SAMA analyses,'' and that this information appeared as Attachment K to the McGuire ER at 20 and as Attachment H to the Catawba ER at 19. *Id.* at 42-43 & n.74. (Both ERs were available at the time contentions initially were to have been filed.) The Applicant adds that the ''Intervenors have not provided any viable basis [that shows] that the accident consequence assumptions in Duke's SAMA analyses were unrealistic, unreasonable, or unsupported.'' *Id.* at 41.

Specifically, with regard to ''plume spreading parameters,'' Duke notes the NRC Staff's stated agreement with the values Duke used for consequence analyses (as reflected in BREDL/NIRS Amended Contention 2, referenced above). *Id.* at 43. The Applicant regards BREDL/NIRS reliance on NUREG-1738 as misplaced, because spent fuel pool accident risk at decommissioning nuclear plants, discussed in NUREG-1738, has no apparent bearing upon a license renewal SAMA analysis — indeed, BREDL/NIRS fails, according to Duke, even to attempt ''to make a technical connection between the analysis and consequences of a spent fuel pool event and those of a containment event'' (analyzed in NUREG/CR-6427). *Id.* at 43-44.

With regard to the assertedly nonconservative ''source term assumptions,'' and the Staff's conclusion that the source-term estimates for major release categories were in ''reasonable agreement'' with estimates from NUREG-1150, Duke asserts that it ''used plant-specific source terms rather than generic values from NUREG-1150,'' and it adds that the Intervenors have not demonstrated that Duke's source terms were ''in any way incorrect or inappropriate for the purpose for which [they were used by Duke, or] in any way inconsistent with applicable regulatory guidance. *Id.* at 44-45. Indeed, Duke cites regulatory guidance to the effect that, instead of NUREG-1150 generic guidance on source terms, in certain instances the source-term offsite risk information used (whatever it may be) must be

supplemented by site-specific analyses, which Duke has in fact employed here. *Id.* at 45 & n.81.

Also with respect to source-term assumptions, Duke points to the Intervenors' claim that ''NUREG/CR-6295[31] contains simplified source terms based on the results of NUREG-1150 that are ideal for consequence calculations.'' *Id.* at 46 (*quoting* BREDL/NIRS Amended Contention 2 at 14). Duke asserts that the Intervenors have failed to explain, however, the alleged relevance or superiority of NUREG/CR-6295, which appears to focus upon factors affecting nuclear power plant siting, to the source terms used in a license-renewal SAMA analysis, where siting is not an appropriate issue.[32] Duke Response at 46. Further, as Duke also observes, BREDL/NIRS has not explained why the different source term that they are using (and the application of which has apparently not been sanctioned by NRC, at least insofar as we are aware), is more appropriate than those values currently used by renewal applicants, particularly Duke.'' *Id.* at 46-47.

As for the ''region for dose calculations'' also challenged by the Intervenors, Duke claims that the 50-mile radius it used has been recommended in generic regulatory guidance. *Id.* at 48 n.87; NUREG/BR-0184, § 5.5.1 (Public Health (Accident)) (''[f]or nuclear power plants, expected changes in radiation exposure should be measured over a 50-mile radius from the plant site''). Duke claims that the Intervenors' proposed 200-mile calculations are unsupported and that the claim is an attempt to challenge generic guidance. Duke Response at 48.

The Board views this proposed contention or subpart as an attempt to challenge the use by Duke of various models used in its calculation of accident consequences. But the Intervenors have made no showing either that the models used by Duke are defective or incorrect for the purpose used or that those models were used incorrectly by Duke. Nor have the Intervenors demonstrated that the models they are recommending are superior in any way to those employed by Duke. The Intervenors merely point out that, by using their models in the manner they are recommending, a different result would be achieved. That is an insufficient basis to formulate a valid contention.

In this connection, we note that 10 C.F.R. § 2.758 precludes a challenge to ''any rule or regulation of the Commission, or any provision thereof,'' in an adjudicatory hearing involving ''initial or renewal licensing.'' Certain exceptions (not here applicable) are set forth. Resolution of questions raised under this section is required for renewal licensing. 10 C.F.R. § 54.29(c). The Applicant, however, has inferentially characterized standards set forth in regulatory guides as also not subject to challenge. If that be the intent of Duke's comments,

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[31] NUREG/CR-6295/BNL-NUREG-52442, ''Reassessment of Selected Factors Affecting Siting of Nuclear Power Plants'' (Feb. 1997).

[32] Siting, of course, was considered when construction permits and/or operating licenses for the reactors were evaluated. It generally need not and would not be considered in a renewal proceeding.

they are not accurate. Standards such as the 50-mile radius used by Duke for calculating expected changes in radiation exposure for dose calculations stem from a regulatory guide (NUREG/BR-0184) and are not ''rules or regulations'' subject to the prohibitions of 10 C.F.R. § 2.758. They do not have the force of regulations. *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-74-40, 8 AEC 809, 811 (1974). When challenged, they are to be regarded as the views of only one party — the Staff — although they are entitled to considerable *prima facie* weight. *Consumers Power Co.* (Big Rock Point Nuclear Plant), ALAB-725, 17 NRC 562, 568 & n.10 (1983). Thus, standards set forth in regulatory guidance documents may be challenged. In this instance, however, the basis relied on by BREDL/NIRS is not adequate to do so.

For all of these reasons, subpart 6 of Amended Contention 2 is rejected in its entirety.

Subpart 7

Failure to submit PRA for peer review

Duke has not obtained peer review for all of the revisions to the PRA and IPE on which it relies for its SAMA analysis. Therefore, there is not an adequate basis for reliance on its SAMA analysis.

As the basis for this contention, the Intervenors cite DG-1110 for the proposition that ''[a] peer-review process can be used to identify weaknesses in [a] PRA'' as well as 'the importance of weaknesses to . . . confidence in the PRA results.'' BREDL/NIRS Amended Contention 2 at 16 (*quoting* DG-1110 at 51). DG-1110 defines what is meant by an acceptable peer review: ''performed by qualified personnel . . . according to an established process that compares the PRA against [desired] characteristics and attributes,'' with documented results and identification of both strengths and weaknesses of the PRA. *Id.* (*quoting* DG-1110 at 51). According to BREDL/NIRS, DG-1110 also provides ''a table with a summary of desired characteristics and attributes of a peer review.'' *Id.* (internal quotation marks omitted). The Intervenors go on to claim that ''[a] peer review is essential in this case. . . .'' *Id.* at 16-17. They cite RAI responses to the effect ''that Revision 3 of the PRA was peer reviewed while it was being developed'' — inadequate, in BREDL/NIRS view — and that the Catawba PRA ''will be reviewed'' in the spring of 2002 — from which they conclude that ''[i]t is not clear that the review has been done.'' *Id.* at 17.

In its response, Duke sets forth a number of reasons why this contention should not be accepted. Most important, it states that an external peer review of the McGuire PRA by the EPRI Nuclear Safety Analysis Center was conducted, that an ''internal review'' occurred during the conduct of the PRA, and that the RAI

response further stated that, ''as part of the WOG PRA certification program, [t]he McGuire PRA was reviewed in the fall of 2000.''[33] As for Catawba, the Applicant states that the Spring 2002 peer review referenced by the Intervenors as questionable had in fact already been completed.[34] The Staff for its part also points out that internal and external peer reviews of PRAs for both plants had been performed, and that the Staff had reviewed certain of these PRAs, adding that ''BREDL/NIRS fail to show why this level of peer and Staff review has been insufficient, how further peer review would actually improve existing PRAs, or how further peer review would relate in any specific way to Duke's SAMA analysis.''[35]

Furthermore, both Duke and the Staff stress that there is no NRC requirement for peer reviews of PRAs to be performed — at best, a draft regulatory guide cited by BREDL/NIRS suggests that peer reviews of PRAs are desirable. Duke Response at 50; Staff Answer at 22-23. Moreover, they acknowledge (as noted above) that Regulatory Guides are not the equivalent of NRC regulations, but are ''routine agency policy pronouncements that do not carry the binding effect of regulations.'' *See International Uranium (USA) Corp.,* CLI-00-1, 51 NRC 9, 19 (2000); *Curators of the University of Missouri,* CLI-95-1, 41 NRC 71, 150 (1995).

In the Board's view, subpart 7 is inadmissible. Putting aside the fact that an adequate peer review appears to have been performed, there is no NRC requirement that there be peer review of PRAs, although peer review in effect may render the PRAs more reliable. For this reason, subpart 7 of Amended Contention 2 is hereby rejected.

Subpart 8

Failure to justify conclusion that return fans are essential

> In response to RAI 6, Duke assumes that return fans are essential in order to ensure the effectiveness of hydrogen igniters. This has the effect of inflating the cost of the mitigative measure of hydrogen ignition. However, the assumption is not justified.

As the basis for this contention, BREDL/NIRS state that they agree with NRC ''that, based on available technical information, it is 'not clear that operation of an air-return fan is necessary to provide effective hydrogen control.' '' BREDL/NIRS Amended Contention 2 at 17 (*citing* Supp. 8 to NUREG-1437 at 5-30). They go on to conclude that the necessity of air-return fans for hydrogen control is not

[33] Duke Response at 51 (*citing* McGuire RAI Response at 3).

[34] *Id.* at 51-52.

[35] Staff Response at 23.

supported by NUREG/CR-6427, and ''should be rejected unless supported by a detailed analysis, because it results in the artificial inflation of the cost of the mitigative measure of hydrogen ignition.'' BREDL/NIRS Amended Contention 2 at 17.

Duke points out that the Intervenors fail to provide any technical basis for their conclusion that air-return fans are not necessary for effective hydrogen control or that only the igniters need be powered during SBO, and, ''in any event, offer no basis for the assertion that backup power to the hydrogen igniters without power to the air return fans would be beneficial or prudent from a safety perspective.'' Duke Response at 52-53. The Applicant goes on to state its view that, ''as a technical matter, power to the fans is required, as well as the igniters, for effective hydrogen control''; and that, ''based on analyses performed to date, a safety concern exists when powering hydrogen igniters without the air return fans also being powered.'' *Id.* at 53 n.99. Duke states its belief that ''containment integrity could be challenged and perhaps even breached if the air-return fans are not powered along with the hydrogen igniters.'' *Id.* It goes on to acknowledge ''that more engineering analyses are required to resolve this safety concern.'' *Id.*

With respect to the contention itself, both Duke and the Staff claim that Intervenors' argument clearly exceeds what can be addressed in a Part 54 licensing proceeding, inasmuch as the issue is not an equipment-aging issue and NEPA and Part 51 require an evaluation of SAMAs. *Id.* at 53; Staff Answer at 24-25. The Applicant states that it ''has provided the required SAMA evaluations and has provided information on the costs and benefits of the alternatives of the backup power to the hydrogen igniters and the air-return fans.'' Duke Response at 53 (emphasis omitted). Duke adds that it ''is not obligated to justify in the present Part 54 SAMA context any particular position on the installation of specific SAMAs that have been evaluated.'' *Id.* at 53. The Applicant and Staff each conclude that the contention should be rejected as beyond the scope of this Part 54 proceeding. *Id.* at 53; Staff Answer at 24.

Duke also claims that NEPA and the regulations are not action-forcing, and ''[t]he issue of what alternatives should be installed, if any, will be resolved outside NEPA and outside Part 54,'' namely in the context of the resolution of GSI-189. Duke Response at 53.

According to the Staff, this contention, even if proven, would not entitle the Intervenors to any relief. Staff Answer at 24. Specifically, ''BREDL/NIRS would not be entitled to an implementation of the related mitigative measure (installation of backup power to hydrogen igniters) since this measure is not related to . . . managing the effects of aging.'' *Id.* The Staff adds that BREDL/NIRS have provided (1) no independent factual basis for its assertion that Duke's

assumptions are unjustified, instead relying on the DEISs[36] without adequately explaining how the Staff's position (that the need for air-return fans is unclear) supports BREDL/NIRS's claim that Duke's assumption should be rejected; and (2) no adequate explanation of the relevance in this context of NUREG/CR-6427. *Id.*

After review of both parties' positions, the Board views this contention as beyond the scope of matters properly at issue in this proceeding. It has no relationship, insofar as we can tell, to equipment-aging issues. Furthermore, the relief that BREDL/NIRS is apparently seeking — elimination of the option of using air-return fans — is likewise not available in this proceeding. Discussion of that option by Duke has already been pursued by Duke. Indeed, BREDL/NIRS has already obtained all the relief that it could achieve in this NEPA-based proceeding — i.e., the Staff's acknowledgment in its cost-benefit analysis that use of an air-return fan may not be advantageous. In the last analysis, the need to use an air-return fan is a safety issue having nothing to do with equipment aging. The Staff is properly considering this issue through its Part 50 procedures. Thus, subpart 8 of the contention is moot, exceeds the permissible scope of the proceeding, and fails to set forth any relief that the Board could grant. Accordingly, the contention must be rejected.

III. CONCLUSION AND ORDER

Based on the foregoing, Amended Contention 2 as a whole, and each of its eight subparts, is not acceptable as a contention and, accordingly, must be *dismissed.*

[36] In so noting, the Board points out that the Staff's conclusion is based on a dubious use of the MELCOR and CONTAIN codes. *See* Tr. ACRS 501st Meeting at 44-46, *available at* Adams Accession No. ML031180572; Letter from K.D. Bergeron to ACRS (June 3, 2002) at Tr. 493d ACRS Meeting, pt. 2, at 151-56, *available at* Adams Accession No. ML021700307.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD[37]

Dr. Charles N. Kelber
ADMINISTRATIVE JUDGE

Lester S. Rubenstein
ADMINISTRATIVE JUDGE

October 2, 2003

Statement of Administrative Judge Ann Marshall Young

Having on this date received the final majority decision ruling on Amended Contention 2, with parts of which I concur in results and with parts of which I dissent, and wishing to facilitate the earliest possible issuance of this ruling in accordance with the Commission's recent statement of concern, I will issue my separate opinion, concurring in part and dissenting in part, as an addendum to this date's issuance, on or before October 8, 2003.

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

[37] Copies of this Memorandum and Order, together with the following Statement of Administrative Judge Young, have been transmitted this date by e-mail to counsel for each of the parties.

ADDENDUM TO LBP-03-17

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
Dr. Charles N. Kelber
Lester S. Rubenstein

In the Matter of **Docket Nos. 50-369-LR**
50-370-LR
50-413-LR
50-414-LR
(ASLBP No. 02-794-01-LR)

DUKE ENERGY CORPORATION
(McGuire Nuclear Station, Units 1 and 2;
Catawba Nuclear Station, Units 1
and 2) **October 7, 2003**

SEPARATE OPINION
(Concurring in Part and Dissenting in Part)

Although I concur in part with my colleagues on the results they reach with regard to Amended Contention 2, I disagree with other of their rulings, and therefore must to that extent dissent from the majority decision. More broadly, and in my view more significantly in some ways, I find the approach taken by the majority to be based in some instances less on the contention admissibility criteria of 10 C.F.R. § 2.714 than on other factors, including premature merits-based considerations. I endeavor herein, among other things, to address some of the implications and potential negative effects of this approach.

Timeliness

I do agree with my colleagues that, where information giving rise to a subpart of Amended Contention 2 stems from Duke's January 31 and February 1, 2002, responses to the Staff's Requests for Additional Information (RAI responses), this constitutes good cause for failure to file on time under 10 C.F.R. § 2.714(a)(1)(i). I also agree with the implicit converse of this proposition, that information not arising out of the RAI responses will not support a finding of such good cause absent other appropriate indications. *See* LBP-03-17, 58 NRC 221, 227 (2003). And I concur that subpart 1 is untimely and inadmissible in that it does not arise out of information in the RAI responses and could have been raised among the original contentions on the basis of the Environmental Reports (ERs), which appear to have been available at that time. Indeed, as the majority decision points out, the ERs consider the no-action alternative, and thus subpart 1 would seem to raise no genuine dispute on a material issue of fact or law as required under 10 C.F.R. § 2.714(b)(2)(iii). *See id.* at 228.

On the other hand, I find the remaining subparts of Amended Contention 2 timely, in that they can properly be tied, in terms of good-cause basis, to Duke's RAI responses.[1] Even though there may be some information that might have been available earlier[2] that would provide some support for some of the contention subparts or portions thereof, and whether or not and to what degree all the RAI responses relate to the subject matter of the original Contention 2, on which I state no opinion herein, the responses were, when made, new statements of Duke, made in a new context. And the Intervenors have relied on them, stating that Amended Contention 2 describes ''the extent to which Duke's RAI responses fail

[1] Specifically, subpart 2 refers to RAI 1 responses, Blue Ridge Environmental Defense League's and Nuclear Information and Resource Service's Amended Contention 2 (May 20, 2002) at 5-6 (hereinafter Amended Contention 2); subpart 3 to RAI 3 and 4 responses, *id.* at 7; subpart 4 to RAI 3c response, *id.* at 8-9; subpart 5 to RAI 2 response, *id.* at 10; subpart 6 to a table submitted as part of the RAI responses for McGuire, *see* Amended Contention 2 at 14 n.6 (*citing* Letter from M.S. Tuckman to NRC, Attachment 1 at 11 (Jan. 31, 2002) (hereinafter Tuckman 1/31/02 Letter); subpart 7 to RAI 1b response, *id.* at 16-17; and subpart 8 to RAI 6 response, *id.* at 17.

[2] Regarding Duke's arguments that some of the RAI responses merely recite old information, Response of Duke Energy Corporation to Proposed Late-Filed Contentions (June 10, 2002) at 25, 34, the question arises, then, why the need for the RAIs in the first place? Regarding Duke's argument that RAI responses should be treated the same as RAIs under Commission precedent to the effect that an RAI is not in itself a basis for a late-filed contention, *id.* at 5 n.13, I find the two to be distinguishable: RAIs are Staff questions, which do not provide any information themselves, whereas RAI responses generally provide information, which if new in any way would seem not to be foreclosed as possible grounds for late-filed contentions, depending upon the nature of the information and other circumstances that would be unique to each situation. In this proceeding I would find the RAI responses constitute sufficient grounds for submitting the late-filed contentions, at least subparts 2-8, as discussed in the text of my opinion.

to demonstrate adequate consideration of NUREG/CR-6427, and therefore failed to satisfy the [NEPA 'hard look' doctrine].'' [BREDL's] and [NIRS's] Response to ASLB Questions Regarding Admissibility of Amended Contention 2 (Feb. 7, 2003), at 4 (hereinafter, Intervenors' 2/7/03 Response). In light of this, and given the specific references to the RAIs in subparts 2-8, I find these timely in that they arise out of and rely on information in the RAI responses.

I also find these subparts timely based on aspects of the ''widespread confusion'' that has existed at various points in the history of this proceeding, *see, e.g.,* LBP-03-17, 58 NRC at 227 n.5, which among other things I would find gave the Intervenors ''good cause to believe that filing an amended contention was unnecessary.'' *See* CLI-02-28, 56 NRC 373, 384 (2002).

Finally, I would find that the other factors of 10 C.F.R. § 2.714(a)(1) are satisfied in that, under subsections (ii) and (iv), there would seem to be no other reasonably equivalent means whereby the Intervenors' interest with regard to the subject matter of the subparts in question of the amended contention may be protected or represented by other parties, given that they are the only Intervenors in the proceeding, and in that, under subsections (iii) and (v), the participation of the Intervenors would seem reasonably to be expected to assist in developing a sound record on the matters in dispute and should not broaden the issues or delay the proceeding.

General Contention Admissibility Requirements

Regarding the requirements for admissibility of all contentions, whether timely or late-filed, in 10 C.F.R. § 2.714(b)(2)(i)-(iii), I find subparts 2 through 8 to satisfy these requirements to one degree or another, in that they all provide: specific statements of the issues they raise, along with brief explanations of their bases; concise statements of alleged facts that support them; expert opinion to support them through the ''Declaration of Dr. Edwin S. Lyman in Support of BREDL/NIRS Amended Contention 2'' (Apr. 26, 2002), in which Dr. Lyman, who has a Ph.D. in theoretical physics, states that he assisted in the preparation of Amended Contention 2; references to various documents and sources; and sufficient information to show some level of genuine dispute with regard to material issues of law or fact.

I might find cause to deny admission of subpart 8 under the theory that even if proven it would be of no consequence because it would not entitle Intervenors to any relief, as provided in 10 C.F.R. § 2.714(d)(2)(ii), noting the Commission's comment that, ''[g]iven that the draft [Supplemental Environmental Impact Statements (SEISs)] already find that an ac-independent backup power source appears to be a cost-beneficial SAMA . . . , it is unclear what additional result or remedy would prove meaningful to the Intervenors.'' CLI-02-28, 56 NRC at 388. The Commission, however, directed the Board to make such determinations, *see id.*

at 387, and the Intervenors have pointed out that the Staff has not taken a definite position on this, *see, e.g.,* Tr. 1344-49, and assert that a more thorough and rigorous analysis under the ''hard look'' requirement of the National Environmental Policy Act (NEPA) is the relief they seek — an argument I examine below.

I would observe that several of the subparts might well be appropriate for summary disposition, either fully or in part, depending upon what facts and argument might be submitted in such a context. I suggest this would be a better avenue to address some of the merits-based considerations discussed in Duke's and the Staff's responses and in the majority decision, to which I refer above, and which I discuss in greater detail below.

In the interest of efficiency, as well as in recognition that this is merely a concurring and dissenting opinion, I will not discuss all subparts of Amended Contention 2 individually in depth or detail. Instead, I will focus my discussion on subpart 2, because I find it presents, most clearly, most if not all of the sorts of issues that the parties and the majority decision address with regard to subparts 2 through 8, including those issues on which I disagree with the majority decision.

Subpart 2 of Amended Contention

The Intervenors in subpart 2 assert, as part of their general contention that Duke's ''[Severe Accident Mitigation Alternative (SAMA)] analysis is incomplete, and insufficient to mitigate severe accidents, in that it fails to provide an adequate discussion of information from NUREG/CR-6427 . . . ,'' that the analysis is deficient in failing ''to provide adequate support for conclusory results in [Duke's] RAI responses,'' and that ''Duke has not supported its SAMA analysis by publication of its PRA.'' Amended Contention 2 at 4.

Subpart 2 is, like the original Contention 2 (and like some of the other subparts of Amended Contention 2), essentially a ''contention of omission,''[3] alleging ''the omission of particular information'' — namely, in this subpart, the Probabilistic Risk Assessment, or PRA. *See* CLI-02-28, 56 NRC at 382-83. Reading this subpart together with the introductory language, it can be seen that the Intervenors contend that this omission renders the SAMA analysis ''incomplete, and insufficient to mitigate severe accidents'' and, ''[i]n particular,'' deficient in that, without the PRAs, there is ''[in]adequate support for [the] conclusory

[3] I would suggest that this, perhaps heretofore unrecognized, ''omission contention'' nature of parts of Amended Contention 2 may account for some confusion relating to the amended contention, given that an amendment to a previous ''omission contention'' might not normally be expected to be another omission contention, but rather would generally be a contention that the previously omitted and now-supplied information is deficient in some affirmative regard. There is, however, no prohibition or requirement to such effect, and thus I treat Subpart 2 as what I view it to be, a ''contention of omission'' as defined by the Commission in CLI-02-28, 56 NRC at 382-83.

results'' in the RAI responses, *see* Amended Contention 2 at 4, and by extension, the SEISs, to which we may look to see whether the Staff's SAMA analyses may have cured the concern of this contention subpart. *See* CLI-02-28, 56 NRC at 385; *see also* Intervenors' 2/7/03 Response at 1, wherein Intervenors assert that the issues they raise ''have not been mooted by the issuance of the [SEISs].''

The Intervenors contend that the summary results of the PRA that Duke has provided are ''insufficient to support the SAMA analysis, because there is no way to determine whether the assumptions underlying the calculations are reasonable.'' Amended Contention 2 at 5. The Intervenors provide a number of examples, which they characterize as the ''most obvious and severe ones'' of areas of possible faulty assumptions. *Id.* I will concentrate here on one of the Intervenors' examples, that regarding diesel generator reliability, in order to examine more closely their contention in this regard.[4]

In this example, the Intervenors refer to a statement in Duke's response to the Staff's RAIs, in which they say that ''Duke states that data changes in Revision 2 improve diesel generator reliability, resulting in reduced core damage frequency ('CDF') caused by loss of offsite power ('LOOP'), tornados and earthquakes.'' Amended Contention 2 at 5. In the response in question, Duke indeed states that it had made certain ''Level 1 changes associated with the McGuire PRA Revision 2,'' including updating certain data, the ''most significant'' of which were ''those related to diesel generator performance.'' Tuckman 1/31/02 Letter, Attachment 1 at 1. The response continues:

[4] Other examples provided by the Intervenors include: (a) Duke stating only that data changes in Revision 2 ''*improve* diesel generator reliability, resulting in reduced core damage frequency (CDF) caused by loss of offsite power (LOOP), tornadoes and earthquakes''; (b) Duke's reevaluation of failure rates caused by interfacing systems loss-of-coolant-accidents (ISLOCA) and indicating that these are considered by Duke to be ''an *important* risk contributor''; (c) Duke's use, in its January 31, 2002, response to RAI 1a, of other such qualitative and relative terms as ''significantly reduced'' and ''slight increase''; (d) Duke's provision of tables containing only summary estimates of core damage and containment failure frequencies; (e) Duke's qualitative explanation for the anomaly of the ISLOCA containment failure frequency being twenty-seven times higher after Revision 2; (f) Duke's statement in its January 31, 2002, response to RAI 1b that ''*in general,* the review team [that reviewed the IPE and PRA] found that the Duke PRA processes are sufficient to support applications requiring risk significance determination''; (g) Duke's statement that its SAMA analysis was based partially on Revision 3 and partially on Revision 2 of the PRA, with no indication as to which was used for which parameters or why; (h) Duke's statement in its January 31, 2002, response to RAI 1c that CDF induced by steam generator tube rupture (SGTR) was found after Revision 3 to be 7.8E-10 rather than 7.0E-6 as before; and (i) the absence in Duke's analysis of fully documented assumptions and inputs, without which the Intervenors argue there can be no meaningful evaluation of Duke's consequence analysis. Amended Contention 2 at 5-6 (emphasis added); *see* LBP-03-17, 58 NRC at 229-30.

> Following the IPE, Duke proceeded with a program to improve the DG reliability at McGuire. The reliability improvement that occurred significantly reduced the CDF contributed by the LOOP and Tornado initiators. . . .

Id.

Looking to the McGuire SEIS, to see whether the Intervenors' concern in subpart 2 of Amended Contention 2 has been cured, I find the statement that ''[t]he Level 1 PRA changes associated with the McGuire PRA Revision 2 model'' included ''incorporation of updated data for component reliability, unavailabilities, initiating event frequencies, common cause failures, and human error probabilities.'' NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 8, Regarding McGuire Nuclear Station, Units 1 and 2, Final Report (2002), at 5-6 (hereinafter SEIS). The SEIS continues:

> The most significant data changes are those related to diesel generator (DG) performance. Following the IPE, Duke proceeded with a program to improve the DG reliability at McGuire. The reliability improvement that occurred significantly reduced the CDF contributed by the loss of offsite power (LOOP) and tornado initiators. . . .

Id. The SEIS includes a table in which the ''breakdown of the CDF from Revision 2 to the PRA'' is provided, listing various initiating events, their individual frequencies, and the percentage of the total CDF they represent. *Id.* at 5-7, Table 5-3. The text following the table refers to the ''Level 2 (also called containment performance) portion of the McGuire PRA model, Revision 2, [being] essentially the same as the IPE Level 2 analysis,'' but with some ''modifications,'' which are described quite generally.[5] *Id.* Sections of the SEIS discuss the Staff's review and evaluation of various aspects of Duke's SAMA analysis, making various references to, among other things, documents the Staff had considered, telephone conferences it had held with Duke, and the results of various calculations. *See generally id.* at 5-9–5-32.

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[5] The modifications are described as follows:

> ''• modifications to reflect an emergency operating procedure change that reduced the likelihood of restarting a reactor coolant pump following core damage, thus reducing the potential for thermally induced steam generator tube rupture
>
> • modification of the containment event tree (CET) logic regarding the potential for corium contact with the containment liner
>
> • modification of the CET logic and quantification to reflect that the refueling water storage tank inventory would drain through a failed reactor vessel in some sequences (e.g., SBO).''

Near the end of the SAMA analysis portion of the SEIS, the following statements are made, which I quote in their entirety given their relevance to the diesel generator issue (for example, in their references to a backup generator and ''ac-independent power source''), as well as their relevance generally to the matters at issue in Amended Contention 2:

> The NRC has recognized that ice condenser containments like McGuire's are vulnerable to hydrogen burns in the absence of power to the hydrogen ignitor system. This issue is sufficiently important for all PWRs with ice condenser containments that NRC has made the issue a Generic Safety Issue (GSI), GSI-189 — Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident (NRC 2002b). As part of the resolution of GSI-189, NRC is evaluating potential improvements to hydrogen control provisions in ice condenser plants to reduce their vulnerability to hydrogen-related containment failures in SBO. This will include an assessment of the costs and benefits of supplying igniters from alternate power sources, such as a back-up generator, as well as containment analyses to establish whether air-return fans also need an ac-independent power source, as part of this modification. The need for plant design and procedural changes will be resolved as part of GSI-189 and addressed for McGuire and other ice condenser plants as a current operating license issue.
>
> **5.2.7 Conclusions**
>
> Duke completed a comprehensive effort to identify and evaluate potential cost-beneficial plant enhancements to reduce the risk associated with severe accidents at McGuire. As a result of this assessment, Duke concluded that no additional mitigation alternatives are cost-beneficial and warrant implementation at McGuire.
>
> Based on its review of SAMAs for McGuire, the staff concurs that none of the candidate SAMAs are cost-beneficial with the possible exception of one SAMA related to hydrogen control in SBO events. This conclusion is consistent with the low level of risk indicated in the McGuire PRA and the fact that Duke has already implemented numerous plant improvements identified from previous plant-specific risk studies. Duke's position is that SAMAs that provide hydrogen control in SBO events are not cost-effective because back-up power would also need to be supplied to the air-return fans from ac-independent power sources in order to ensure mixing of the containment atmosphere; the cost of powering both the igniters and the air return fans would exceed the expected benefit. However, based on available technical information, it is not clear that operation of an air return fan is necessary to provide effective hydrogen control. If only the igniters need to be powered during SBO, a less-expensive option of powering a subset of igniters from a back-up generator, addressed by Duke in responses to RAIs (Duke 2002a; NRC 2002a), is within the range of averted risk benefits and would warrant further consideration. Even if air-return fans are judged to be necessary to ensure effective hydrogen control in SBOs, the results of sensitivity studies suggest that this combined SAMA might also be cost-beneficial.

> The staff concludes that one of the SAMAs related to hydrogen control in SBO sequences (supplying existing hydrogen igniters with back-up power from an independent power source during SBO events) is cost-beneficial under certain assumptions, which are being examined in connection with resolution of GSI-189. However, this SAMA does not relate to adequately managing the effects of aging during the period of extended operation. Therefore, it need not be implemented as part of license renewal pursuant to 10 CFR Part 54. The need for plant design and procedural changes will be resolved as part of GSI-189 and addressed for McGuire and all other ice condenser plants as a current operating license issue.

Id. at 5-29-5-30.[6] NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 9, Regarding Catawba Nu-

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[6] Regarding the statement in the quoted material from the McGuire SEIS indicating that SAMAs that do not ''relate to adequately managing the effects of aging'' need not be implemented as part of license renewal, to the extent this statement speaks only to implementation and not to the contents of the SEIS, I express no opinion, except to suggest that, as stated in the section of the text on NEPA, an EIS would still appear to be required to address all SAMAs in a manner that meets NEPA requirements.

With regard to the statement referring to GSI-189, I would note that this has been the subject of numerous discussions among the parties, and updates from the Staff at the Board's request. *See, e.g.,* Tr. 756-57, 868, 927, 1152. The Commission has also referred to GSI-189 in CLI-02-28, 56 NRC at 388 n.77. To provide the most recent example of the Licensing Board's reference to it, in May of this year the Board issued an Order in which we stated:

> Given that since early on in this proceeding the parties have often referred to GSI-189 in their oral and written arguments on Amended Contention 2, currently under consideration by the Board, and given that the purpose of the June 18 meeting is ''[t]o discuss the NRC staff plans for resolution of GSI-189 . . . ,'' the Board considers it appropriate to encourage all parties to attend this meeting, and to consider and communicate with each other about the possibility of settlement with regard to Amended Contention 2 based upon any information forthcoming from the June 18 meeting.

Order (Regarding June 18, 2003, Meeting on GSI-189, and Deadline To Report to Licensing Board) (May 30, 2003), at 1. In this order we required the parties to notify the Board, by June 25, whether resolution of Amended Contention 2 appeared to be a reasonable possibility, as well as of any other new developments arising out of the meeting. *Id.* at 2. On June 24, 2003, the parties filed a Joint Report to Licensing Board, stating that at the meeting there was a technical discussion of GSI-189, including stakeholder comments, as well as an indication that a ''Task Action Plan'' was to be issued shortly, but that there was no prospect for settlement of Amended Contention 2 at that time. Joint Report to Licensing Board (June 24, 2003), at 1-2.

It is apparent from the various updates the Board has received on GSI-189 that the issues involved in it (and in Amended Contention 2) are in some particulars quite thorny and difficult ones. And given that GSI-189 does appear to address some of the same issues involved in both the original Contention 2 and Amended Contention 2, if there were a pending or imminent rulemaking relating to GSI-189, this might have been grounds to defer to the Staff's rulemaking and deny admission of Amended Contention 2, under the authority of a Commission's statement, in an earlier license renewal proceeding, that a matter subject to a pending (or impending) rulemaking is not an appropriate

(Continued)

clear Station, Units 1 and 2, Final Report, contains similar language. *Id.* at 5-28–5-29.

Looking back to the example of the diesel generator reliability, although my colleagues conclude (more or less as a factual determination on the merits of the issue) that the reliability is supported by certain raw data in a table in the ''published summary of revision 2 of the McGuire PRA'' (with no citation provided), *see* LBP-03-17, 58 NRC at 231, there does not appear to be specific original data in the actual SAMA analyses of Duke and in the SEIS that might arguably support such reliability, although, as indicated above, there is a reference to Revision 2 of the PRA. The conclusion is made in the SEIS that diesel generator reliability has been improved, but even assuming one has the summary of Revision 2 to the PRA (which, along with other similar documents, the Intervenors' counsel has indicated they have consulted, *see* Tr. 1161), without the actual raw data from the most current PRA from which the summary is drawn, one would seem to be left in a position of relying on the accuracy of the summary, with no way to determine whether it is indeed accurate or based on valid inputs and calculations.

It may well be quite true that the diesel generators are now more reliable. It may well also be quite true that the data in the second revision of the McGuire PRA support such a conclusion. This does not, however, appear to be ascertainable from the face of either Duke's or the SEIS SAMA analysis, or, indeed, from the majority decision. The same general observation would also apply to other examples provided by the Intervenors in Subpart 2.[7]

If in fact there are publicly available documents that on their face contain information directly showing no genuine dispute with regard to the diesel generators and other issues raised by the Intervenors, one may question why information on how to find them was not provided as a matter of course, as well as wonder why, in NUREG/CR-6427, the NRC-contracted study that was the basis for the

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subject for a contention unless waiting for the rulemaking to be final would delay the license renewal proceeding. *See Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999). Duke has argued to this effect. Response of [Duke] to July 15, 2002 Licensing Board Order (July 22, 2002) at 2-8. Intervenors, on the other hand, argue that this proceeding is different in that it involves a NEPA issue whereas GSI-189 concerns a safety issue, with differing standards. [BREDL's] and [NIRS's] Concise Written Filing in Response to Order of July 15, 2002 (July 20, 2002) at 1-4 (hereinafter Intervenors' 7/20/02 Filing). The Staff asserts simply that GSI-189 is ''not relevant to this proceeding.'' NRC Staff's Response to the Board's July 15, 2002 Order (July 22, 2002) at 2. In any event, according to a recent article, although certain rulemaking changes to 10 C.F.R. § 50.44 (relating to standards for combustible gas control system in light-water-cooled power reactors) were expected soon (after some delay) to become final, the Staff is planning to ''wait until after a November presentation to the Advisory Committee on Reactor Safeguards (ACRS) before resolving [GSI-189].'' ''GSI nearing resolution,'' *Inside NRC,* Sept. 8, 2003, at 16. Thus, in the absence of more information on the status and approach of GSI-189, I would not at this point find it to constitute reason to deny admission of any part of Amended Contention 2.

[7] *See* note 4, *supra.*

original Contention 2, no apparent reference is made to such documents, leading to the further question why the authors either did not know about them or knew but did not take them into account.

Considering this in light of the ''ironclad obligation'' of petitioners and intervenors ''to examine the publicly available documentary material . . . with sufficient care to enable [them] to uncover any information that could serve as the foundation for a specific contention,'' *see* LBP-02-4, 55 NRC 49, 65 (2002); Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989), cited in the NRC Staff's Answer to [BREDL's] and [NIRS's] Amended Contention 2 (June 10, 2002) at 11; if the persons with whom the NRC contracted to produce NUREG/CR-6427 were not aware of the documents in question, one may question the holding of intervenors to a higher standard, notwithstanding the differing contexts of an NRC-contracted study and the filing of contentions by petitioners for an adjudicatory hearing. Surely a standard of reasonableness applies to this obligation. In any event, as indicated above, it appears the Intervenors did have access to the summary documents at some point, and have still maintained that these are not sufficient under NEPA.

Moreover, in all the discussions of the PRAs in this proceeding, although reference is made to various publicly available documents, there appears to be no dispute that the entire actual PRAs, or relevant portions of the documents themselves as opposed to summaries of them, have not in fact been available.[8] *Whether* they *are* required in order to provide adequate support for the results of the SAMA analyses, RAI responses, and SEISs is, of course, the central issue with regard to Subpart 2 of Amended Contention 2. There is manifestly a genuine dispute between the parties on this issue; despite their declarations to the contrary, many of the arguments of the Applicant and Staff actually illustrate the dispute, on which, had a hearing been granted, evidence and argument would be presented before a decision on the merits were made on this issue.

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[8] As the Commission notes in CLI-02-28, the Intervenors' request for the PRAs first arose during the course of settlement discussions with Duke, 56 NRC at 386, which discussions the Board had encouraged and on the progress (but not the substance) of which the Board had requested updates. *See, e.g.,* Tr. 756, 868. Although the Commission provides some guidance on the PRA issue, reminding the Board that the contention rule bars ''anticipatory'' contentions, ''where petitioners have only 'what amounts to generalized suspicions, hoping to substantiate them later,' '' and that a petitioner ''is not permitted 'to file a vague, unparticularized contention, followed by an endeavor to flesh it out through discovery,' '' it further states that the issues relating to the PRAs involve ''fact- and record-specific'' inquiries, which it left to the Board to resolve. CLI-02-28, 56 NRC at 387. For the reasons stated in the text of my opinion, I find the issues raised by the Petitioners to be more than merely anticipatory, generalized, vague, or unparticularized, notwithstanding that, of course, reasonable parties may differ on their merits, but in my view preferably after considering the merits arguments in an appropriate context of summary disposition motions and/or a hearing.

My colleagues rule subpart 2 to be inadmissible because (1) it is ''in the nature of a discovery dispute'' (noting precedent that ''contentions shall not be admitted if at the outset they are not described with reasonable specificity or are not supported by 'some alleged fact or facts' demonstrating a genuine material dispute''); (2) ''NRC regulations do not require Duke to publish its entire PRA, and the Intervenors fail to provide any legal support for that proposition''; (3) ''as a factual matter, Duke submitted portions of its PRA in 1991, 1992, and 1994 for Staff review, and these submittals (and the Staff's reviews) are, indeed, publicly available''; (4) ''[t]hese publications include data sought by BREDL/NIRS,'' stating as an example that ''the increase in Emergency Diesel Generator reliability is supported by the raw data in Table 3.1.5.1-1 of the published summary of revision 2 of the McGuire PRA''; (5) ''[i]n its RAI responses, Duke provided supplementary, quantitative, and qualitative information regarding changes to its PRAs (although it did not attach the full PRAs)''; and (6) the ''Intervenors have not established there is a genuine dispute as to why this information is inadequate to assure the reliability of Duke's PRAs.'' LBP-03-17, 58 NRC at 230-31.

Dealing with these findings in order, I would note, first, that the circumstance that a given matter may at some point be the subject of a discovery dispute does not negate it for all other purposes — to take a simple example, in a lawsuit over a traffic accident, the fact that one party may seek discovery of facts related to the accident does not render the same facts irrelevant as allegations in a complaint or evidence in a hearing. Second, the fact that no specific regulation requires Duke to publish its entire PRA is irrelevant if as a result of such omission it might be argued or found, for example, that the SAMA analysis required under 10 C.F.R. Part 51, Appendix B, is inadequate as a factual and technical matter, or that the SEIS is inadequate under NEPA — one of the primary arguments of the Intervenors.[9] Third, although the majority states that ''as a factual matter'' various portions of the PRA have been submitted, no citation is provided for any of these, as indicated above, nor is it clear to what extent, if one had these in hand, one would indeed have a current PRA sufficient to support the statements and conclusions in the RAI responses and SEISs — a matter on which the parties are in obvious

[9] The majority in various parts of its decision also refers to the lack of any NRC regulatory requirements for, to give examples, ''adopt[ing] the assumptions and findings of a study produced by an independent contractor of the Staff,'' LBP-03-17, 58 NRC at 234; ''uncertainty analyses in the situation before us,'' *id.* at 236; ''peer review of PRAs,'' *id.* at 242. But just as with Subpart 2, the lack of a specific regulatory requirement for a given action is irrelevant if a petitioner or intervenor contends and provides some basis for a contention that such action is required as a technical or scientific matter, or under NEPA, for example (assuming, of course, the contention involves no challenge to an existing NRC rule). As the Commission has stated, ''the contention rule does not require 'a specific allegation or citation of a regulatory violation,' '' although ''supporting reasons'' for a contention are, of course, required. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 361-62 (2001).

dispute. Fourth, nor are the conclusions that such documents include the data sought by the Intervenors, and that such data support ''the increase in Emergency Diesel Generator reliability,'' supported by any explanation or generally accepted citation. Fifth, nor is the referenced ''supplementary, quantitative, and qualitative information regarding changes to its PRAs'' described with any specificity.

Moreover, and in a sense more importantly, with regard to the third, fourth, and fifth considerations listed, these appear to me to be conclusions on the merits of the dispute raised in subpart 2 of Amended Contention 2. And it would, in addition, seem that the majority's statement that the ''Intervenors have not established there is a genuine dispute *as to why this information is inadequate* to assure the reliability of Duke's PRAs,'' LBP-03-17, 58 NRC at 231 (emphasis added), either (1) assumes the information is inadequate and questions whether there is a dispute on *why* the information is inadequate, or (2) is really a statement to the effect that the intervenors *have not shown why* the information is inadequate — which, again, would appear to be a judgment on the merits of the dispute over the adequacy of the SAMA analysis without the inclusion of the complete PRA.[10]

In contrast to the majority decision, I would find subpart 2 admissible. First, it consists of a ''specific statement of the issue of law or fact to be raised or controverted,'' as required by 10 C.F.R. § 2.714(b)(2). It identifies both the factual issue of whether Duke's SAMA analysis (or, looking to them to see whether they have cured any deficiency, the final SEISs) ''provide adequate support for conclusory results in [Duke's] RAI responses'' in the absence of the actual PRAs, and the legal issue of whether support in such form is required in this proceeding under NRC license renewal regulations and/or NEPA law regarding the contents of an EIS. *See* Amended Contention 2 at 4-5. The Intervenors also provide a brief explanation of the bases of the contention, as required by 10 C.F.R. § 2.714(b)(2)(i). *See, e.g.,* the summary of examples listed in LBP-03-17, 58 NRC at 229-30. And they provide, as required at 10 C.F.R. § 2.714(b)(2)(ii), both the concise statement of the alleged fact that the results of the SAMA analysis are inadequately supported as a result of the absence of the complete PRA (giving, as noted above, various specific examples of this), as well as the supporting expert

[10] Although, as stated above, I do not deal with subparts 3 through 8 of Amended Contention 2 individually, I would point out just two examples from them that I view as being more in the nature of addressing merits issues than the contention requirements, to illustrate that this approach pervades the majority decision beyond just in its discussion of subpart 2. First, in its discussion of subpart 6, the majority states that the ''the Intervenors have made no showing either that the models used by Duke are defective or incorrect for the purpose used or that those models were used incorrectly by Duke. Nor have the Intervenors demonstrated that the models they are recommending are superior in any way to those employed by Duke.'' LBP-03-17, 58 NRC at 240. Then, in its discussion of subpart 7, the majority refers to ''the fact that an *adequate* peer review appears to have been performed.'' *Id.* at 242 (emphasis added).

opinion provided through Dr. Lyman's Declaration. They make specific reference to Duke's RAI responses, as also required by section 2.714(b)(2)(ii).

I find, in all of the preceding information, that the Intervenors have provided sufficient information to show, as required at 10 C.F.R. § 2.714(b)(2)(iii), a genuine dispute on whether the SAMA analysis is or is not adequately supported both as a factual scientific/technical matter, and as a legal matter under NRC regulations and NEPA law (which, given its significance in this proceeding, I address in a separate section below). To summarize, they provide this information both in the statement of the contention that the SAMA analysis is inadequately supported by virtue of the absence of the actual PRA, and in the list of specific examples of conclusory and qualitative (as opposed to quantitative[11]) statements illustrating such inadequacy, *see* LBP-03-17, 58 NRC at 229-30, which spell out some of what the Intervenors contend is not contained in the SAMA analysis, and include reasons for the Intervenors' belief that both the larger omission of the PRA and the individual omissions provided in the examples render the SAMA analysis inadequate.

In addition, I find the Intervenors have fulfilled the purposes of the contention rule as defined by the Commission in CLI-02-28: They have clearly (1) provided notice to the opposing parties of the issues they seek to litigate; (2) provided more than minimal factual and legal foundations for their claims; and (3) shown the requisite ''genuine dispute'' with the applicant on material issues of fact and law. *See* CLI-02-28, 56 NRC at 383.

NEPA Requirements for an EIS

As indicated above, the Intervenors rely upon NEPA with regard to several subparts of Amended Contention 2, including subpart 2. As the Commission has noted, NEPA does not mandate the particular decision an agency must reach on an issue, only the process it must follow while reaching its decisions. CLI-02-28, 56 NRC at 388 n.77 (citing *Committee to Save the Rio Hondo v. Lucero,* 102 F.3d

[11] In their basis for subpart 5 the Intervenors point out that a draft EIS is, under 10 C.F.R. § 51.71(d), ''to the fullest extent practicable, [to] quantify the various factors considered.'' Amended Contention 2 at 11. *See also* Intervenors' 7/20/02 Filing at 6. Although there may certainly be differing views on what would constitute ''the fullest extent practicable'' in a given EIS, this would seem to be integrally related to the ''genuine dispute'' with regard to subpart 2, as well as, in other particulars, subpart 5 and others: i.e., the dispute between the parties on whether the SAMA analysis is or is not adequately supported in the absence of the actual PRAs both as a factual scientific/technical matter and as a legal matter. The practicability of including, excerpting from, and/or providing meaningful references to the actual PRAs in order to ''quantify the various factors'' ''to the fullest extent possible,'' and whether this would thus be required under section 51.71(d), would play into and require resolution itself as part of the resolution of the central dispute between the parties, had Amended Contention 2 been admitted and there were further proceedings on it.

445, 448 (10th Cir. 1996); *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350 (1989)). Based on this, and also on the Staff's statement in the SEISs that the SAMA in question might in fact be cost-beneficial, *see* McGuire SEIS at 5-29–5-30, Catawba SEIS at 5-29, it has been argued that Amended Contention 2 should not be admitted because, under 10 C.F.R. § 2.714(d)(2)(ii), even if proven the contention would be of no consequence in the proceeding because it would not entitle the Intervenors to relief.

As indicated above, the Intervenors have argued, on the relief issue, that the SEIS is not definite in supporting the SAMA in question, *see, e.g.,* Tr. 1344-49, and that a ''more thorough,'' Tr. 1314, ''rigorous, disciplined, and well-supported evaluation of accident risks at Catawba and McGuire,'' disclosure of which would have value in itself, *see* [BREDL's] and [NIRS's] Reply to Responses by [Duke] and NRC Staff to ASLB Questions Regarding Admissibility of Amended Contention 2 (Feb. 12, 2003) at 2-3, and which they argue is mandated under the NEPA requirement that an EIS must incorporate a ''hard look'' at the environmental factors affecting its decision, would constitute the relief they seek. *See* Amended Contention 2 at 3, 4 (citing *Foundation on Economic Trends v. Heckler,* 756 F.2d 143, 151 (D.C. Cir. 1985)).

In this regard, I note the NEPA requirement of 42 U.S.C. § 4332(C) that an EIS include a ''detailed statement'' of, among other things, the environmental impact of any major federal action. The EIS must ''be written in language that is understandable to nontechnical minds and yet contain enough scientific reasoning to alert specialists to particular problems within the field of their expertise.'' *Environmental Defense Fund, Inc., v. Corps of Engineers,* 348 F. Supp. 916, 933 (5th Cir. 1972). The amount of detail required has also been described as ''that which is sufficient to enable those who did not have a part in its compilation to understand and consider meaningfully the factors involved.'' *Limerick Ecology Action, Inc., v. NRC,* 869 F.2d 719, 737 (3d Cir. 1989); *Environmental Defense Fund, Inc., v. Corps of Engineers,* 492 F.2d 1123, 1136 (5th Cir. 1974).

The Intervenors have consistently contended that the amount of detail that has been provided is not sufficient to enable their expert to ''understand and consider meaningfully the factors involved,'' arguing that the summary results of the PRA that Duke has provided are ''insufficient to support the SAMA analysis, because there is no way to determine whether the assumptions underlying the calculations are reasonable.'' Amended Contention 2 at 5; *see also, e.g.,* Tr. 990-91; Intervenors' 7/20/02 Filing, at 5-7.[12]

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[12] Dr. Lyman has stated, for example, on the cited transcript pages, that ''what is or is not necessary for a full understanding of this is a subjective judgment and therefore a large part of the PRA or proprietary that are being withheld is a subjective judgment whether the proprietary information [*sic*] is just allowing to filter into the public domain is sufficient for the public to understand this. . . . Some

(Continued)

Based on the Intervenors' arguments and the preceding case law, I find (without stating any opinion on the ultimate merits question of how the issue should be resolved were it still a pending issue in this proceeding) that the Intervenors have shown a genuine dispute of law on the issue of whether the ''hard look'' and ''detailed statement'' requirements of NEPA mandate provision of any underlying raw data contained in the Duke PRAs.

Conclusion

In conclusion, Petitioners are required at the contention stage of NRC adjudicatory proceedings to support their allegations and claims sufficiently to ensure that they raise genuine issues and are grounded in adequate bases. As the Commission has stated, the ''contention rule is strict by design,'' having been ''toughened . . . in 1989 because in prior years 'licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.' '' *Millstone,* CLI-01-24, 54 NRC at 358 (citing *Oconee,* CLI-99-11, 49 NRC at 334). But to go beyond the requirements and purposes of the rule[13] and in effect to judge the merits of contentions, as I believe my colleagues have done in their decision — prior to being presented, either through the summary disposition process or a hearing, actual evidence on issues in dispute — is in my view inappropriate. As we recognized in our decision on the original contentions in this proceeding, and as the Commission observed in *Oconee,* the ''contention rule should [not] be turned into a 'fortress to deny intervention,' '' and contentions ''that are material and supported by reasonably specific factual and legal allegations'' — which I find significant parts of Amended Contention, including subpart 2, to be — should be admitted. *See* LBP-02-4, 55 NRC at 65; *Oconee,* CLI-99-11, 49 NRC at 335.

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of the summary information that has been provided by Duke is generally simply numerical results and it is very difficult to establish the entire reasoning behind some of the numerical results that are produced.''

[13] *See, e.g.,* 54 Fed. Reg. at 33,170, wherein the Commission, in its Statement of Consideration for the 1989 Rules of Practice amendments, stated that the requirement of 10 C.F.R. § 2.714(b)(2)(ii) ''does not call upon the intervenor to make its case at this stage of the proceeding,'' although it is required ''to indicate what facts or expert opinions, be it one fact or opinion or many, of which it is aware at that point in time which provide the basis for its contention.'' Perhaps even more notable is the Commission's statement in the SOC, in response to a ''number of commenters'' disagreeing with language in the originally proposed rule providing that a presiding officer was to refuse to admit a contention if it ''appears unlikely that petitioner can prove a set of facts in support of its contention,'' objecting ''because it suggest[ed] that the presiding officer [wa]s to prejudge the merits of a contention before an intervenor has an opportunity to present a full case.'' The Commission stated that it recognized the ''potential ambiguity of the proposed phrasing'' and that ''the paragraph has been deleted.'' *Id.* at 33,171.

The majority decision has the effect of requiring petitioners and intervenors to meet a virtually impossible burden of proving their case at the outset, prior to any opportunity either to prepare for the presentation of well-developed evidence in a hearing, or even to respond appropriately to a motion for summary disposition. It would also seem to negate the actual intent and purposes of the law and rules on hearings in NRC matters, and to severely curtail the public's rights under the Atomic Energy Act with regard to matters that may rightly concern the public, especially those who have, generally through residence near nuclear plants, shown standing to participate in adjudicatory proceedings. I believe the approach taken in the majority decision has the potential to make such results more likely, and for this reason as well as those discussed above, I cannot concur with significant parts of it.

Ann Marshall Young
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 7, 2003[14]

[14] Copies of this Opinion were sent this date by Internet e-mail or facsimile transmission, if available, to all participants or counsel for participants.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
Dr. Peter S. Lam
Thomas D. Murphy

In the Matter of **Docket No. 50-213-OLA**
(ASLBP No. 01-787-02-OLA)

CONNECTICUT YANKEE ATOMIC POWER COMPANY
(Haddam Neck Plant) **October 15, 2003**

In this license termination proceeding under 10 C.F.R. § 50.82(a)(9), (10), the Licensing Board finds that Applicant Connecticut Yankee has shown by a preponderance of the evidence that its license termination plan meets the requirements of 10 C.F.R. § 50.82(a)(9), (10), with regard to the issues raised in the two remaining contentions of Intervenor Citizens Awareness Network after settlement of its other contentions and those of the Connecticut Department of Public Utility Control; approves the license amendment application; and terminates the proceeding.

RULES OF PRACTICE: CONTENTIONS, ADMISSIBILITY

Based on the Commission's ruling in CLI-03-7, 58 NRC 1 (2003), the Licensing Board denies admission of proposed amended contention relating to issue of ''Whether 25 mrem/Year Dose Standard Ensures Decommissioning Activities Are Not Inimical to the Health and Safety of Children in Satisfaction of 10 C.F.R. § 50.82(a)(10).''

RULES OF PRACTICE: MOTION TO SUPPLEMENT/REOPEN RECORD

The Licensing Board treats a June 2003 Motion To Supplement Record as a motion to reopen the record, given that the record was closed in May 2003, and denies the motion because it does not demonstrate that a materially different result would be likely based on the proffered new information, as required under 10 C.F.R. § 2.734(a)(3).

RULES OF PRACTICE: SCOPE OF PROCEEDING; LICENSE TERMINATION PLAN, PURPOSE

The purpose of the license termination plan (LTP) process is to ensure that the plant site will be left in such a condition that nearby residents can frequent the area without endangering their health and safety, and is the one and only chance petitioners have to litigate whether the proposed survey methodology is adequate to demonstrate that the site will ultimately be brought to a condition suitable for license termination.

LICENSE TERMINATION PLAN: 10 C.F.R. § 50.82(a)(9)(II)(D) REQUIREMENT FOR DETAILED PLANS FOR FINAL RADIATION SURVEY

A majority of the Board finds the LTP to be sufficiently detailed with regard to the detection of hot particles to assure that Applicant can demonstrate that it can meet the requirements of Subpart E and that the public health and safety can be protected, and sees no reason to condition the license on including in the LTP a procedure to detect hot particles, which would be identical to the scanning technique now used to meet the final status survey requirements and the requirements of the *Multi-Agency Radiological Survey and Site Investigation Manual.*

LICENSE TERMINATION PLAN: 10 C.F.R. § 50.82(a)(10) REQUIREMENTS REGARDING PUBLIC HEALTH AND SAFETY, AND EFFECT ON QUALITY OF ENVIRONMENT

The Board finds that, notwithstanding some evidence of Applicant understating the growing season in the plant site area, the preponderance of the evidence is that this difference is not significant enough to place in question the adequacy of Applicant's dose modeling calculation methodology to protect the public health and safety, or such that it would cause there to be a ''significant effect on the quality of the environment,'' under 10 C.F.R. § 50.82(a)(10), as these requirements are,

in practical effect, defined in 10 C.F.R. § 20.1402, regarding radiological criteria for unrestricted use after license termination, and the requirement that the total effective dose equivalent (TEDE) to the average member of the critical group not exceed 25 mrem (0.25 mSv) per year.

TECHNICAL ISSUES DISCUSSED

The following technical issues are discussed: Adequacy of LTP site characterization and methodology for detection and cleanup of transuranic, hard-to-detect nuclide and ''hot particle'' radioactive contamination; adequacy of dose modeling calculation methodology in the LTP, including issues of what are appropriate factors and considerations relating to the ''outdoors value,'' yearly intake of water by residents, and the nature of and extent to which the characteristics of children must be taken into account in calculating the TEDE, in the ''resident farmer scenario,'' to the ''average member of the critical group'' under 10 C.F.R. §§ 20.1402, 20.1003.

INITIAL DECISION

This proceeding concerns the license amendment application of Connecticut Yankee Atomic Power Company (Connecticut Yankee, CY, Applicant, or Licensee), seeking approval pursuant to 10 C.F.R. §§ 50.82(a)(9), (10), of a License Termination Plan (LTP) for its Haddam Neck Plant, located approximately 21 miles southeast of Hartford, Connecticut, on the east bank of the Connecticut River. Citizens Awareness Network (CAN) and the Connecticut Department of Public Utility Control (CDPUC or Connecticut) were admitted as Intervenors in this proceeding in July 2001, at which time the Board also admitted thirteen contentions filed by the parties. LBP-01-21, 54 NRC 33 (2001). CDPUC has since settled all its admitted contentions with CY, but has continued to participate in the proceeding as an interested governmental entity under 10 C.F.R. § 2.715(c).

On March 10-14, 2003, a hearing was held on the two CAN contentions remaining after settlement and/or withdrawal of its other contentions. The first of these two, Contention 1.5, relates to the adequacy of the site characterization and methodology for the detection and cleanup of transuranic, hard-to-detect nuclide (HTDN) and ''hot particle'' radioactive contamination. The second, Contention 6.1, relates to the adequacy of the dose modeling calculation methodology that CY employs in the LTP, and was admitted in limited form in LBP-01-21. 54 NRC at 93-94. For the reasons set forth herein, we find that CY has shown by a preponderance of the evidence that its LTP meets the requirements of 10 C.F.R. §§ 50.82(a)(9), (10), with regard to the issues raised in these contentions.

Accordingly, we approve the license amendment application and terminate this proceeding.

I. BACKGROUND

In its July 7, 2000, license amendment request, Connecticut Yankee proposes to add a new license condition which would approve the LTP, also dated July 7, 2000, and allow the Applicant to make changes to the approved LTP without prior NRC approval if certain criteria specified in the license condition are met. After a public meeting held October 17, 2000, the Staff proposed to determine that the amendment request involves no significant hazards consideration under 10 C.F.R. § 50.92(c), and provided notice of this finding and of the opportunity for a hearing with regard to the amendment request in the December 13, 2000, *Federal Register.* 65 Fed. Reg. 77,913, 77915-16 (Dec. 13, 2000). Thereafter, Petitioners CAN, appearing through nonattorney representatives,[1] and CDPUC filed their requests for hearing on January 10 and 12, 2001, respectively, and this matter was forwarded to the Atomic Safety and Licensing Board Panel on January 23, 2001.

On January 31, 2001, this Licensing Board was established to preside over this proceeding. *See* 66 Fed. Reg. 9111 (Feb. 6, 2001). Oral argument on the Petitioners' contentions was held in April and May 2001, Tr. 1-349, after which this Licensing Board issued LBP-01-21. Subsequently, in LBP-01-25, 54 NRC 177 (2001), the Licensing Board denied Connecticut Yankee's Motion for Reconsideration of the admission of Contention 6.1, the interlocutory appeal of which was denied by the Commission in CLI-01-25, 54 NRC 368 (2001). After settlement and/or withdrawal of eleven of the thirteen contentions originally admitted in this proceeding, the Board conducted an evidentiary hearing on two CAN contentions, Contentions 1.5 and 6.1, in March 2003. Thereafter, on May 28, 2003, all parties filed their Proposed Findings of Fact and Conclusions of Law,[2] and on June 26 and 27, 2003, all parties filed response pleadings to each

[1] At one point early in this proceeding there was some indication that CAN might be assisted by counsel, but the attorney in question withdrew from any representation of CAN, and CAN currently appears through three nonattorney representatives, Ms. Rosemary Bassilakis, Director of Connecticut CAN; Ms. Deborah B. Katz, Executive Director of CAN; and CAN member Ms. Katie Flynn-Jambeck.

[2] Citizens Awareness Network Proposed Findings of Fact and Conclusions of Law Regarding Contentions 1.5 and 6.1 (May 28, 2003) [hereinafter CAN Proposed Findings]; NRC Staff's Proposed Findings of Fact and Conclusions of Law Concerning CAN Contentions 1.5 and 6.1 (May 28, 2003) [hereinafter Staff Proposed Findings]; Connecticut Yankee's Proposed Findings and Rulings in the Form of a Proposed Initial Decision (May 28, 2003) [hereinafter CY Proposed Findings].

others' Proposed Findings.[3] In addition, since the evidentiary hearing, various other pleadings have been filed both with this Board and with the Commission.

On March 21, 2003, CY filed a ''Motion for Reconsideration: Motion To Compel (After-Acquired Information), Open Court, March 13, 2003,'' relating to a discovery issue involving the duty to supplement discovery responses. After receiving responses from the other parties to this motion, a majority of the Board on May 20, 2003, issued a Memorandum and Order (Dismissing as Moot a Motion for Reconsideration of an Oral Discovery Ruling), with a Separate and Concurring Opinion filed by Administrative Judge Young.

Also, on April 1, 2003, CY requested that a supplemental exhibit — a March 21, 2003, document entitled ''Effects of Recycling Sr-90 Contaminated Groundwater as Irrigation Water'' — be received into evidence as Exhibit 60 (CY-17-Panel 1). In addition to other filings, CAN has submitted certain proposed additional evidence as well. On April 11, 2003, CAN filed a document entitled ''Request for Admission of Late-Filed Amended Contention 6.1, Request That Consideration Be Held in Abeyance, and Request To Hold the Record Open,'' with Exhibits 1, 2, and 2A, and the same date mailed proposed Exhibits CAN-38-Resnikoff and CAN-39-Resnikoff, identified as CY's Geoprobe Results and Surrogate Ratio, respectively, along with its request that these be received into evidence. Responses to CAN's April 11 Requests were filed by CY and the Staff on April 28, 2003. Further, on June 27, 2003, CAN filed a Motion To Supplement Record, responses to which were filed by CY and the Staff on July 14, 2003.[4]

Finally, CAN filed with the Commission a document entitled ''Citizens Awareness Network Petition for Consideration of Whether 25 mrem/Year Dose Standard Ensures Decommissioning Activities Are Not Inimical to the Health and Safety of Children in Satisfaction of 10 C.F.R. § 50.82(a)(10) and Request To Direct the Licensing Board To Accept Amended Contention 6.1'' (April 14, 2003). After receiving responses from CY and the Staff opposing CAN's petition, the Commission on July 2, 2003, denied the petition in its entirety and directed the Board to reject the proposed Amended Contention 6.1. CLI-03-7, 58 NRC 1 (2003).

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[3] NRC Staff's Reply Findings of Fact and Conclusions of Law Concerning CAN Contentions 1.5 and 6.1 (June 26, 2003) [hereinafter Staff Reply Findings]; Citizens Awareness Network's Response to Connecticut Yankee's and NRC Staff's Proposed Findings of Fact and Conclusions of Law Regarding Contentions 1.5 and 6.1 (June 27, 2003) [hereinafter CAN Reply Findings]; Connecticut Yankee's Reply to Proposed Findings and Rulings Submitted by Citizens Awareness Network (June 27, 2003) [hereinafter CY Reply Findings].

[4] Citizens Awareness Network's Motion To Supplement Record (June 27, 2003) [hereinafter CAN Motion To Supplement]; Connecticut Yankee's Response to ''Motion To Supplement the Record'' Filed by Citizens Awareness Network (July 14, 2003) [hereinafter CY Response to Motion To Supplement]; NRC Staff's Opposition to CAN's Motion To Supplement Record (July 14, 2003) [hereinafter Staff Opposition to Motion To Supplement].

II. RULINGS ON PENDING MATTERS

No objections having been filed to CY's proposed Exhibit 60 (CY-17-Panel 1), or to CAN-38-Resnikoff and CAN-39-Resnikoff, and given the submission of these documents prior to the closing of the record in May 2003, *see* Memorandum and Order (Dismissing as Moot a Motion for Reconsideration of an Oral Discovery Ruling) (May 20, 2003), at 3, we admit them into evidence in this proceeding.

Based, however, on the Commission's ruling in CLI-03-7, the Board denies admission of proposed Amended Contention 6.1, and declines to admit related CAN Exhibits 1, 2, and 2A.

With regard to CAN's June 2003 Motion To Supplement Record, given that the record was closed in May 2003, we will treat this as a motion to reopen the record under 10 C.F.R. § 2.734. We find, as discussed below in our conclusions on Contention 1.5, that CAN's motion does not demonstrate that a materially different result would be likely based on the proffered new information, as required under 10 C.F.R. § 2.734(a)(3), and therefore deny the motion.

III. FINDINGS OF FACT

A. Contention 1.5

Contention 1.5 provides as follows:

> *Adequacy of Site Characterization, Methodology for Detection and Cleanup of Transuranic [Hard-to-Detect Nuclide (HTDN)], and ''Hot Particle'' Contamination.*
>
> [CY's] LTP is insufficient in providing the methodology that will insure adequate detection and cleanup of transuranics (TRU), ''hot particles,'' and hard-to-detect-nuclide (HTDN) contamination. Contrary to the requirements of 10 CFR 50.82, the measurement methodology [CY] provides in its LTP Site Characterization and Final Site Survey Plan to determine alpha and beta emitting radioactivity, ''hot particles,'' and HTDN, is not adequate to demonstrate that public and occupational health and safety will be protected.

LBP-01-21, 54 NRC at 80.

In admitting this contention, the Licensing Board noted that CAN ''provided sufficient explanation, facts, expert opinion, sources, and documents to show that a genuine dispute [existed] on the material issue of the appropriate methodology to use to test for alpha contamination and 'hot particles' on the site, so as to warrant further inquiry.' *Id.* at 81. The dispute on this contention centers on CAN's challenge to CY's program for the detection of ''hot particles'' and its

plan to use a surrogate analysis technique for detecting hard to detect [HTD] radionuclides. We deal with each of these issues separately below.

The evidence on this contention includes the prefiled and hearing testimony of CY witnesses George E. Chabot, Ph.D., Russell A. Mellor, Kenneth J. Heider, Richard N. McGrath, Eric L. Darois, C.H.P., and James P. Tarzia, C.H.P.; CAN witness Dr. Resnikoff; and NRC Staff witness Jean-Claude Dehmel. Each of the witnesses has provided a curriculum vitae with his direct prefiled testimony. The Board has reviewed this information for each witness and finds each qualified to testify as an expert to matters at issue with regard to Contention 1.5.

1. Hot Particles

Hot particles are small, discrete radioactive fragments consisting of metallic alloys or spent fuel, which are insoluble in water. They range from a few microns to a few millimeters in dimension, and are generally irregularly shaped; according to NRC Information Notice 90-48, a ''hot particle'' is less than 1 millimeter in any dimension. Prefiled Direct Testimony of Russell A. Mellor, Kenneth J. Heider, Richard N. McGrath, Eric L. Darois, C.H.P., and James P. Tarzia, C.H.P. (''CY Panel'') Relating to CAN Contentions 1.5 and 6.1 (Feb. 7, 2003), fol. Tr. 1256, at 13 [hereinafter CY Panel Direct]; Prefiled Rebuttal Testimony of Russell A. Mellor, Kenneth J. Heider, Richard N. McGrath, Eric L. Darois, C.H.P., James P. Tarzia, C.H.P., and Stewart W. Taylor, Ph.D. (''CY Panel'') Relating to CAN Contentions 1.5 and 6.1 (Feb. 28, 2003), fol. Tr. 1256, at 1-2 [hereinafter CY Panel Rebuttal]; NRC Staff Testimony and Professional Qualification Statements of Jean-Claude Dehmel (Feb. 7, 2003), fol. Tr. 1756, at 4 [hereinafter Dehmel Direct].

Hot particles are characterized by elevated radioactivity levels and, as a result of radioactive decay, become electrically charged. Dehmel Direct at 4-5. The radiological properties of hot particles at a particular site are dependent on the nuclear plant's operational history; ''primary coolant chemistry which is responsible for metallic corrosion products[;] sudden changes in power levels which may result in thermal stress leading to premature fuel rod failures[;] wear properties [of the] metallic alloys present in components''; the ''level of neutron radiation and duration of irradiation; and how much of the fuel has been used.'' *Id.*

Hot particles fall predominately into two categories:

> (1) . . . [M]inute specs of metallic alloys that have been activated by neutron irradiation, consisting primarily of Co-58 and Co-60, and, (2) Particles originating from failed fuel contain uranium and transuranics, comprising mainly of Pu-238, Pu-239, Pu-240, Pu-241, Am-241, Cm-243 and Cm-244. The predominant fission products present in spent fuel hot particles include Zr-95, Nb-95, Ru-103, Ba-140,

Ce-141, and Ce-144 . . . and smaller amounts of other radionuclides such as, Sr-89, Sr-90, Cs-134, Cs-137, and Pm-147.

Dehmel Direct at 6.

According to the CY expert panel, hot particles are present within plant systems and ''are typically found in radiologically controlled areas [(RCA)] of nuclear plants, where reactor coolant water may have cross-contaminated floors or components. Their characteristics are such that they rarely . . . become airborne. . . . Nuclear plants maintain . . . controls to monitor and prevent the spread of hot particles outside radiologically controlled areas.'' CY Panel Rebuttal at 2. Routine surveys are performed during operation and decommissioning to ensure that contamination is detected. *Id.* If hot particles are found, additional surveys are performed in boundary areas to ensure that the probability of release outside the RCA is extremely remote. *Id.*

However, in the case of CY, there was an event in 1979-1980 during which hot particles were released outside the RCA from the vent stack. CY Panel Direct at 6; CY Panel Rebuttal at 2-3; Citizens Awareness Network's Pre-Filed Testimony of Dr. Marvin Resnikoff Regarding Contentions 1.5 and 6.1 (Feb. 7, 2002), fol. Tr. 1482, at 4 [hereinafter Resnikoff Direct]. Because of their mass, the particles quickly fell to the ground. CY Panel Rebuttal at 2-3. Following this event, CY conducted radiological surveys in the outside areas of the site, and detected the presence of hot particles, which were located and remediated. CY Panel Direct at 6; CY Panel Rebuttal at 2-3; Resnikoff Direct at 4. The hot particles found following the vent stack release were primarily found northward of the plant approximately 200-300 meters and eastward of the plant approximately 200 meters. Tr. 1291-97. The vast majority of the particles were found in a tight radius around the reactor containment building. Tr. 1295.

According to CY expert witnesses, subsequent routine operational surveys performed following the event have shown no additional particles meeting the definition of a hot particle used by CY in the affected areas outside of the RCA. CY Panel Rebuttal at 2-3. Although there is no absolute industry standard on how high the activity level of a particle must be to define it as a ''hot particle,'' CY Panel Direct at 13, the definition used by CY is that it must exceed 20,000 counts per minute and be less than 1 millimeter in size. Tr. 1304-05. While areas of low-level contamination were found on the hillside outside the RCA, no discrete particles were found that met the CY definition of a hot particle. Tr. 1300-05, Exh. 9 (Hot Particle Log), Tr. 1391-93. And while hot particles were found within the RCA, as a result of breaching systems at the plant, processes and procedures were in place to prevent those particles from leaving the RCA. Exh. 8 (Silvia Memo); Tr. 1283-86. Followup surveys, asserted by CY witnesses to be rigorous, were performed in 1980. Tr. 1435. Thereafter, beginning in 1997, additional surveys were performed for the purpose of detecting hot particles, in which 100% of the

areas most likely to be affected were surveyed but no hot particles, as CY defined them, were found. Tr. 1434-37. There appears to be no conflict among the parties that hot particles have existed in the past or do exist now. *See* CAN Proposed Findings at 4-6.

CAN asserts that CY's Final Survey Status Plan [hereinafter FSSP], which is contained in the LTP in Chapter 5 (Exh. 1 at 5-1 to -66), will not identify hot particles. CAN Proposed Findings at 6. CAN's expert, Dr. Resnikoff, claims that section 5.7.2.5.4 of the LTP, at 5-45, relates to surveying land areas, not to detecting hot particles that contain gamma radiation. Tr. 1706. In addition, CAN contends that the *Multi-Agency Radiological Site Survey and Investigation Manual* (MARSSIM) does not provide guidance on the detection of hot particles. Tr. 1706, 1767. CAN asserts that the Staff testified that CY does not provide in the LTP a detailed final status survey plan for hot particles, contrary to the requirements of 10 C.F.R. § 50.82(a)(9)(ii)(D), and also asserts that the LTP must be amended to include specific techniques for identifying hot particles. Tr. 1791-92; CAN Proposed Findings at 6; CAN Reply Findings at 4-5.

In addition, CAN challenges the sensitivity of CY's technique to detect hot particles, arguing that CY cannot detect a fuel fragment with sufficient sensitivity to meet release criteria. CAN Proposed Findings at 7. CAN expert Resnikoff uses radiological information from a hot particle retrieved from the San Onofre reactor, called ''Battelle Particle No. 7,'' as a surrogate for calculating the sensitivity of the technique for detecting hot particles. CAN Proposed Findings at 6-8; CAN Reply Findings at 5-7; Resnikoff Direct at 4-6. Dr. Resnikoff scaled the Battelle particle to 10 microns and calculated that such a particle inhaled would result in a dose that would be a significant fraction of the limits of 10 C.F.R. § 20.1402. *Id.* at 5-6; CAN Proposed Findings at 6-9; CAN Reply Findings at 9-15. During the hearing, however, Dr. Resnikoff stated that in performing his calculations he had incorrectly used the dose conversion factors for a 1-micron particle instead of a 10-micron particle. Tr. 1677-78. To correct for this error, he recalculated the adult dose using the 10-micron dose conversion factor and concluded that the dose should be 6.419 millirem rather than 15.71 millirem. Tr. 1677-80, Exh. 43 (1 micron vs. 10 micron DCF, ICRP-60).

Dr. Resnikoff also calculated the dose from inhalation of a particle 10 microns in diameter, testifying that his calculations were based on inhalation of the particle, which results in a higher dose than ingestion. Resnikoff Direct at 6. Further, he stated that he considered a particle 10 microns in diameter to be respirable. [CAN] Rebuttal Testimony of Dr. Marvin Resnikoff Regarding Contentions 1.5 and 6.1 (Feb. 28, 2003), fol. Tr. 1498, at 2 [hereinafter Resnikoff Rebuttal]. Dr. Resnikoff performed his calculation using the isotopic composition of the Battelle No. 7 hot particle that had been measured in 1986. Resnikoff Direct at 5. He inferred the alpha-emitting actinides using ratios from the ORIGEN2 code, considered the inventory had decayed for 12 and 22 years, and scaled the inventory from

the 80-micron size of the San Onofre particle to a 10-micron diameter. *Id.* He then calculated the dose for an adult at 13-15 mrem, a 10-year-old child at 15-18 mrem, and a 5-year-old child at 22-26 mrem. *Id.*

According to Connecticut Yankee, the Final Status Survey Plan was developed using the guidance of MARSSIM. Exh. 1, § 5.1 at 5-1. CY responds to CAN's challenge by asserting that the scan technique proposed in the LTP is consistent with the requirements of MARSSIM and has sufficient sensitivity to detect hot particles of a magnitude that is well within the dose release criteria of 10 C.F.R. § 20.1402, Subpart E. CY Proposed Findings at 9; CY Reply Findings at 1; Exh. 1, § 5.5 at 5-24 to -26, § 5.7.1.1 at 5-38 to -39 (Table 5-9), § 5.7.3.1, § 5.7.3.2.

CY proposes to use its surface soil survey methodology to detect any hot particles not previously detected and remediated. CY Proposed Findings at 9. This proposed methodology includes, first, dividing the land area of the site, per MARSSIM, into survey areas. *See* Exh. 45 (MARSSIM), § 4.4 at 4-11; Exh. 1, § 1.3.2. Survey areas are classified as Class 1, Class 2, Class 3, or Unaffected, based on their potential to bear residual radioactivity. Exh. 1, § 5.5 at 5-24 to -25, § 5.5.3.1 at 5-34 to -35; CY Panel Rebuttal at 10. For Class 1 areas, the surface soil survey methodology consists of fixed measurements of soil samples performed on a systematic grid, plus a 100% surface area scan. CY Panel Rebuttal at 10; Exh. 1, § 5.5 at 5-25. All other areas may be scanned with a lower fraction; however, judgment is used to determine the fractions and locations where 100% scan is performed within Class 2 and 3 survey units. The judgmental assessment includes a review of all historical information available for each survey unit and will include not only areas where particles are likely to be found, but also areas where it is possible they might be found. The process is a requirement of the ''Data Quality Objective (DQO) process committed to by the LTP for both characterization and final status surveys.'' CY Panel Rebuttal at 10; Exh. 1, § 5.5 at 5-24 to -25, § 5.5.3.1 at 5-34 to -35.

CY claims the sensitivity of the scan methodology it proposes in the LTP is adequate to meet the requirements of Subpart E. As described by the CY Panel,

> The scanning technique employed at the CY site for soils uses a gamma sensitive device (NaI detector) where the survey technique involves moving the detector from side-to-side at a rate of 0.5 m/sec as the surveyor slowly walks forward. This creates a serpentine detection pattern over the scanned soil. This scanning method is consistent with MARSSIM and sensitive to a level where the elevated measurement DCGL (or $DCGL_{EMC}$) is adequately detected as required by the LTP.

CY Panel Direct at 15-16; *see* MARSSIM at 6-13 to -15.

To determine whether this technique is sufficiently sensitive to detect a ''hot particle'' of significant dose potential, the CY Panel engaged in a two-step analysis. CY Panel Direct at 16. First, the panel calculated the sensitivity of

this scan technique. *Id.* This calculation is contained in Exh. 2, at 9, and was reviewed and concurred in by Dr. Chabot. Prefiled Direct Testimony of George E. Chabot, Ph.D., C.H.P. (Feb. 7, 2003), fol. Tr. 1443, at 10-12 [hereinafter Chabot Direct]; *see* Exh. 2 (Panel Attachment 2: ''Health Physics Department, Technical Support Document, HP Number: BCY-HP-0081 Rev. 4: Scan MDC of Land Areas Using a 2-inch by 2-inch Sodium Iodide Detector'' (2/03/03)). The result of the calculation is that the LTP surface soil scan technique has a sensitivity sufficient to detect a particle containing as little as 0.096 microcurie of Co-60. CY Panel Direct at 16.

Next, the CY Panel calculated the dose that a particle containing this level of Co-60 activity would impart if ingested. The calculated dose from the inhalation/ingestion of a particle containing 0.096 microcurie of Co-60 is 0.67 millirem. CY Panel Direct, at 16-17; Exh. 4 (Panel Attachment 4: ''Health Physics Department, Technical Support Document, HP Number: BCY-HP-0125 Rev. 0: Dose Estimate for an Ingested Particle'' (12/05/02)), at 7. Once again, this calculation was reviewed and concurred in by Dr. Chabot. Chabot Direct at 11-12.

To counter Dr. Resnikoff's calculation of dose from the Battelle No. 7 particle scaled to 10 microns, the CY Panel calculated the dose that might be imparted by the ingestion of an actual fuel fragment ''hot particle'' from the 1979-1980 event onsite, producing a calculated individual dose of ''less than one mrem.'' CY Panel Direct at 18; Exh. 5 (Panel Attachment 5: ''Health Physics Department, Technical Support Document, HP Number: BCY-HP-0075 Rev. 0: Evaluation of the 1980 Particulate Activity for Impact on the PSR Survey (9/20/01)), at 2, Attachment 1. CY also asserts errors in several key areas of Dr. Resnikoff's calculations. For example, CY challenged Resnikoff's use of a single 10-micron particle and showed that such a particle is very unlikely to be inhaled into the deeper regions of the lung. As CY expert Darois testified, the likelihood of deposition of a 10-micron particle in the deeper reaches of the lung is less than 1%. Tr. 1385-88; *see also* Exh. 14 at 139; Exh. 42 at 207-08. In addition, CY disputed Resnikoff's use of a particle from another power reactor without relating it specifically to the conditions found at the Haddam Neck Plant. CY Proposed Findings at 12-13. CY also challenged Resnikoff's use of ICRP-72 in his dose calculation without correcting for the parameters required by ICRP-72 in its modeling of lung dose. *Id.* at 11-19 & n.12; Exh. 14 (NCRP Report No. 130, Biological Effects and Exposure Limits for ''Hot Particles''); Exh. 42 (Health Effects of Exposure to Radon, BEIR VI); Exh. 46 (ICRP-72). Finally, upon cross-examination by CY counsel, Dr. Resnikoff admitted he was in error in his use of a 1-meter survey meter height in his calculation of the sensitivity of the technique CY proposes to use to detect hot particles. Tr. 1652-53, 1703-04.

According to the Staff, prior to conducting the Final Status Survey (FSS), CY must demonstrate that it has identified and remediated hot particles. Dehmel

Direct at 6-10. As decommissioning proceeds, the Staff will conduct in-process inspections to verify implementation of the commitments made by CY in the LTP and to review all aspects of the procedures, methodology, equipment, training and qualifications, and Quality Assurance and Quality Control measures. *Id.* at 9. With respect to hot particles, the Staff will evaluate CY's characterization and post-remediation data for survey units where there has been a history of hot particle contamination or where there is a possibility that hot particles may be found based on past, current, or future activities. *Id.* at 9-10. In addition, the Staff will conduct independent confirmatory surveys of such areas to confirm the results generated by CY, and conclusions on the post-remediation status presented by CY in final status survey reports. Staff Proposed Findings at 13; Dehmel Direct at 8-10. The Staff has reviewed the LTP and agrees that the LTP sufficiently describes CY's methodology to perform radiation and radioactivity surveys to detect hot particles. Staff Proposed Findings at 13-16; *see also* Dehmel Direct at 9-12.

For hot particles in particular, the survey method selected must take into account the specific radiological history of the survey unit, any remediation that may have been performed in the past and any specific technical challenges that may exist for the particular survey unit, given the physical condition of the area. Dehmel Direct at 9-10.

With regard to what is meant by ''detailed plans for the final radiation survey,'' the Staff argues as follows:

> While detailed plans are necessary in the LTP, they need not address each and every aspect of how the radiological survey program will be implemented. This is because the appropriate means for conducting the final radiation survey will depend in large part on information which is obtained during the decommissioning process. Throughout this process, the licensee will gain information on the extent and the nature of contamination at the various survey units that will be surveyed.

Staff Reply Findings at 1-2.

Finally, the NRC Staff has reviewed the information in the LTP for the Haddem Neck plant and believes that the ''radiation survey plan in the LTP provides assurance that residual radioactive contamination levels will meet the criteria specified'' in Subpart E for unrestricted use and the Licensee has conformed to 10 C.F.R. § 50.82(a)(9)(ii)(D). Exh. 44 (Safety Evaluation Report) at 26-27.

2. Surrogate Analysis

The controversy concerning CY's plan to use a surrogate analysis technique stems from the undisputed fact that the radiological characterization of the site reveals numerous radionuclides, some of which are easy to detect (ETD) and

some of which are hard to detect (HTD). CY Panel Direct at 6. According to Staff expert Dehmel, the term ''hard-to-detect nuclides'' refers to radioactive elements that are relatively difficult to measure using simple handheld portable radiation survey instruments because they emit radiation that is easily attenuated or shielded by surrounding media, such as soil, concrete, paint, metal, air, water, or other commonly found materials in waste. Dehmel Direct at 6. Hard-to-detect nuclides can be activation or fission products of nuclear fuel and may emit only beta particles, only alpha particles, or only low-energy x-rays. CY Panel Direct at 6. During operation of the Haddam Neck Plant, CY experienced fuel failures during some of its operation cycles, causing some of the contamination at the site to contain a higher than typical amount of hard-to-detect radionuclides. *Id.*; Dehmel Direct at 5.

Because of the difficulty of detecting this type of radiation, a common practice is to obtain samples, which are analyzed ''in a laboratory setting using specific equipment and procedural steps.'' Dehmel Direct at 6. For these samples, a relatively simple laboratory analysis is performed to detect gamma-emitting radionuclides, which are considered ''easy to detect'' in soil. CY Panel Direct at 7-8. The analysis for non-gamma-emitting radionuclides is more complex, thus the term ''hard to detect.'' *Id.* at 8. Sample preparation to detect these radionuclides generally involves chemical separation methods conducted in a laboratory, which require several steps and take substantial time to complete. *Id.* This radiological analysis is performed using radiation detection devices that are sensitive to beta particles, alpha particles, or very low-energy gamma rays which are incapable of being detected by gamma spectroscopy detection methods. *Id.*

Because these methods are time-consuming and costly, alternate methods are commonly used to account for the presence and dose contribution of hard-to-detect nuclides. *Id.* An alternate method is the use of surrogate analysis when there is a reasonably consistent ratio between the laboratory-determined hard-to-detect nuclide and an easy-to-detect nuclide at a particular location. *Id.* The LTP identifies twenty specific nuclides that ''may be considered at the time of the final status surveys . . . based on their potential for dose and a very conservative determination of their possible presence in contamination samples.'' *Id.* at 8-9. These are identified according to the type of energy they emit: alpha, beta, gamma, or low-energy x-ray. Additionally, they are each identified as either hard- or easy-to-detect. *Id.* at 9.

These nuclides were created within the reactor core region as fission products or activation products and were transported to areas outside the reactor coolant system or to other support systems by the reactor coolant system. *Id.* at 10. Generally, these are transported together into the environment. *Id.* For this reason, they may be present in consistent ratios. *Id.* at 8, 10. When, and if, this is the case, the easy-to-detect nuclide may be used to infer the presence of the hard-to-detect

nuclide. *Id.* at 8. This concept is used routinely by the nuclear industry in various applications. Dehmel Direct at 12.

There appears to be no conflict among the parties that hard-to-detect radionuclides have existed in the past and do exist now. CAN Proposed Findings at 9-10; Dehmel Direct at 11-13, CY Proposed Findings at 4-5. Nor does there appear to be a controversy about the use of a surrogate ratio technique to measure hard-to-detect radionuclides. Tr. 1654-56; Dehmel Direct at 12-13; CY Panel Direct at 10-11. CAN, however, contends that there is no evidence that consistent ratios between HTD and ETD radionuclides exist. CAN Proposed Findings at 10; Exh. 61 ([CY]'s Geoprobe Results); Exh. 62 (Surrogate Ratio Data Taken from Geoprobe Results). CAN claims that the data in Exhibits 61 and 62 do not demonstrate that ratios fall within the 25% criteria of the LTP. CAN Proposed Findings at 10; Exh. 1 (LTP), § 5.4.7.3 at 5-18 to -19. Since such information does not exist, CAN contends that the FSS does not meet the ''detailed'' requirements of 10 C.F.R. § 50.82(a)(9)(ii)(D). CAN Proposed Findings at 10-11 & n.6; CAN Reply Findings at 12-15. CAN complains that the LTP provides only a general roadmap for the use of surrogate analysis and fails to prescribe the methodology for direct measurements of HTD radionuclides if a surrogate cannot be employed in a given survey unit. CAN Proposed Findings at 10-11; CAN Reply Findings at 12-15. In support of its thesis, CAN suggests that elevated levels of Sr-90 have not been found in soil, even though it is present in groundwater. Resnikoff Direct at 7; Resnikoff Rebuttal at 5-6.

CY responds that the use of surrogate analysis during the final status survey is governed by observations of the variability in the relative abundance of HTDs in the soil for the survey area in question. CY Panel Direct at 12. If the variability is high, then CY will take appropriate action. *Id.* at 12-13. CY argues that LTP § 5.4.7.3, Exh. 1 at 5-19, provides the necessary actions to be taken if surrogate ratios do not meet the required consistency. CY Reply Findings at 3.

Recognizing that at the time of the hearing no site-specific data had been obtained for determining surrogate ratios, Staff expert Dehmel accepted that it is not possible for CY to produce a set of consistent ratios while remediation and characterization is ongoing. Dehmel Direct at 12-13. Therefore, at the time of the final status survey, the Staff will require CY to provide supporting data for use of surrogate ratios. *Id.* The Staff also takes issue with CAN's analysis of radionuclide ratios, pointing out that Dr. Resnikoff did not account for the variability of sample locations, and other temporal and spatial variations. NRC Staff Rebuttal Testimony of Jean-Claude Dehmel (Feb. 28, 2003), fol. Tr. 1756, at 14-15 [hereinafter Dehmel Rebuttal]; *see also* Can Direct at 8; Chabot Rebuttal at 4. The Staff contends that CY recognizes that Sr-90 exists and will be accounted for. *See* Exh. 1, § 2.3.3.4 at 2-122 (Table 2-12); Dehmel Rebuttal at 5-6, 14.

B. Contention 6.1

Contention 6.1 provides as follows:

> *Dose Modeling Calculation Methodology*
>
> Contrary to the requirements of 10 C.F.R. 50.82, the dose modeling calculation methodology CYAPCO employs in the LTP is not adequate to demonstrate that the LTP will assure the protection of the public health and safety.

See LBP-01-21, 54 NRC at 92. In LBP-01-25, this Board characterized the issue raised in Contention 6.1 as follows:

> What are the appropriate factors and considerations relating to the ''outdoors value,'' yearly intake of water by residents, and the nature of and extent to which the characteristics of children must be taken into account in calculating the TEDE to the ''average member of the critical group'' in the ''resident farmer scenario,'' for purposes of the Haddam Neck site License Termination Plan, in order that the LTP can ''demonstrate[ ] that the remainder of decommissioning activities . . . will not be inimical . . . to the health and safety of the public,'' as required by 10 C.F.R. § 50.82(a)(10)?

LBP-01-25, 54 NRC at 197.

In addition to questioning whether CY used the correct RESRAD dose modeling code (a computer modeling code relating to RESidual RADioactivity) in its LTP, CAN challenges various parameters used by CY in its dose modeling as being insufficiently conservative, including those related to outdoor farm labor exposure, drinking water intake and other pathway parameters, and the inclusion of children in the dose modeling calculations. LBP-01-21, 54 NRC at 93. The Board admitted the contention in part, excluding from litigation the issue of the different RESRAD versions. *Id.* at 93-94. As indicated above, the Board denied a CY motion for reconsideration of our ruling on this contention in LBP-01-25.

The evidence on Contention 6.1 includes the prefiled and hearing testimony of CY witnesses Mellor, Heider, McGrath, Darois, Tarzia, Chabot, and Jeremy D. Foltz, Ph.D.; CAN witness Resnikoff; and NRC Staff witnesses Christepher A. McKenney and Mark Thaggard. As with those witnesses testifying on Contention 1.5 (some of whom are the same), we have reviewed the qualifications of each listed witness and find each to be qualified to testify as an expert on Contention 6.1.

Staff witness McKenney provided an appropriate definitional summary of the concept of ''dose'' in the Staff's prefiled testimony. According to this testimony:

> Dose is a measure of the amount of radiation a person is exposed to. Dose is generally divided into two types: external exposure (i.e., the source of radiation is

> outside the body) and internal exposure (i.e., the source of radiation is inside the body). To get an external dose, a person needs to be around a source strong enough to penetrate the skin, generally, with gamma rays. Cobalt-60 is an example of a source of external exposure. External dose is directly related to how long and how close a person is to the source of external exposure. To get an internal dose, the person needs to inhale or ingest the radioactive material. Part of what a person inhales or ingests will be incorporated, as any element would, into the body. How long the material stays in the body and where is described by biological kinetic models, also known as dosimetry models.
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> . . . .
>
> . . . [Total Effective Dose Equivalent (TEDE)] . . . . is the total of the dose from external and internal sources of radiation. The internal doses are calculated using the organ weighting factors. . . .

NRC Staff Testimony and Professional Qualification Statements of Christepher A. McKenney and Mark Thaggard (Feb. 7, 2003), fol. Tr. 2074, at 4 [hereinafter McKenney/Thaggard Direct], at 4.

Mr. McKenney in his testimony cited various guidance documents that define intake-to-dose conversion factors. *Id.* The factors used to calculate internal exposures are found in Federal Guidance Report No. 11, ''Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion,'' U.S. Environmental Protection Agency (EPA-520/1-88-20). McKenney/Thaggard Direct at 4. External dose factors are found in Federal Guidance Report No. 12 (EPA, 1993). McKenney/Thaggard Direct at 4. The internal dose conversion factors are based on adults, the external ones on a set of values for physiological parameters developed by the International Committee on Radiological Protection (ICRP), which are collectively known as ''Reference Man.'' *Id.*

According to Mr. McKenney, although there are some relatively newer dosimetry models, contained in ICRP Publication 72, which are more sophisticated in that they can calculate dose based on age-specific physiology, called ''effective doses,'' relevant NRC regulations under 10 C.F.R. Part 20, ''Standards for Protection Against Radiation,'' are based on TEDE, which is derived from the dose modeling in an earlier ICRP document, Publication 30. McKenney/Thaggard Direct at 5. A licensee may obtain an exemption from the NRC to use the newer dosimetry models, but CY did not seek such an exemption. *Id.*

With regard to doses related to license termination, a licensee is required to calculate TEDE for ''the average member of the critical group.''[5] *Id.* According to Mr. McKenney, each individual in the hypothetical ''critical group'' will have ''slightly different habits and characteristics resulting in a range of doses,'' which range should be no greater than a factor of 3 from the lowest to highest doses in most cases, according to ICRP-43, ''Principles of Monitoring for the Protection of the Population'' (1984). McKenney/Thaggard Direct at 5. Further, states McKenney, in defining a ''critical group'' and applicable circumstances relating to such a group, the following questions should be considered:

> [O]ne must ask either: ''How could humans be exposed either directly or indirectly to residual radioactivity?'' or ''What is the appropriate exposure scenario?'' First, the appropriate land use for the site needs to be chosen. After that, the analyst can investigate various exposure scenarios to find the critical group. Each exposure scenario must address the following questions: (1) how does the residual radioactivity move through the environment?; (2) where can humans be exposed to the environment concentrations; and (3) what are the exposure group's habits that will determine exposure? (e.g., What is the land used for? What does the exposed population eat and where does the food come from? How much does the exposed population eat? Where do they get water and how much? How much time do they spend on various activities? etc.) By combining the answers to these scenario questions with the knowledge about the sources of residual radioactivity, the analyst can develop the critical group's scenario or ''applicable set of circumstances.''
>
> . . . .
>
> Based on the scenario, a composite individual is created using the average habits and characteristics for the group. By knowing the habits, such as how much water the average individual drinks, the analyst can calculate the dose from that exposure

[5] The ''average member of the critical group'' is the term used in 10 C.F.R. § 20.1402, regarding radiological criteria for unrestricted use after license termination, and the dose limit set therein is 25 mrem per year. This section provides as follows:

> A site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a TEDE to an *average member of the critical group* that does not exceed 25 mrem (0.25 mSv) per year, including that from groundwater sources of drinking water, and that the residual radioactivity has been reduced to levels that are as low as reasonably achievable (ALARA). Determination of the levels which are ALARA must take into account consideration of any detriments, such as deaths from transportation accidents, expected to potentially result from decontamination and waste disposal.

10 C.F.R. § 20.1402 (2003) (emphasis added). The words, ''critical group,'' are defined at 10 C.F.R. § 20.1003 as ''the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.''

> pathway. The exposure from each pathway is summed over all pathways. According to 10 C.F.R. § 20.1402 the total dose from all pathways cannot exceed 25 mrem/yr.

Id. at 6, *see supra* note 5.

Moreover, according to Mr. McKenney:

> [T]he average member of a critical group is not necessarily the same as the maximally exposed individual. The average member of the critical group is an individual who is assumed to represent the most likely exposure scenario based on prudently conservative exposure assumptions and parameter values within model calculations. In some operational situations, it is possible to actually identify with confidence the most exposed member of the public (through monitoring, time-studies, distance from the facility, etc.). But identification of the specific individual who might receive the highest dose some time (up to 1000 years) in the future is impractical if not impossible. Speculation on his or her habits, characteristics, age, or metabolism could be endless. The use of the ''average member of the critical group'' acknowledges that any hypothetical ''individual'' used in the performance assessment is based, in some manner, on the statistical results from data sets (i.e., the breathing rate is based on the range of possible breathing rates) gathered from groups of individuals. While bounding assumptions could be used to select values for each of the parameters (e.g., the maximum amount of meat, milk, vegetables, possible exposure time), the result could be an extremely conservative calculation of an unrealistic scenario and may lead to excessively low allowable residual radioactivity levels.

McKenney/Thaggard Direct at 6-7.

Connecticut Yankee in its LTP uses two primary scenarios for identifying the critical group: a residential farmer scenario for considering contamination in soil, groundwater, and concrete debris from demolished buildings; and a light-industrial building occupancy scenario for considering contamination in building structures. For both scenarios, CY used a hypothetical adult as the average member. *Id.* at 7. According to Mr. McKenney and Mr. Thaggard, the NRC Staff considers CY's use of an adult in the residential farmer and light-industrial scenarios as adequately representing the ''average member of the critical group'' at the site. A residential farmer was ''considered to appropriately represent the average member of the critical group based on demographic and economic data in the area,'' where an agricultural lifestyle is considered feasible. *Id.* Further, because it allows consideration of a large number of exposure pathways, the Staff views the residential farmer scenario as providing ''more restrictive

[Derived Concentration Guideline Levels (DCGLs)][6] than other scenarios that are plausible,'' and also considers the light-industrial building occupancy scenario to be appropriate ''based on the internal configuration of the buildings at the site, which was felt not to be suitable for residential use.'' *Id.* at 7-8. According to Mr. McKenney and Mr. Thaggard, the two selected exposure scenarios are ''the most conservative for the radionuclides at the site.'' *Id.* at 8.

According to Mr. McKenney, ''only in rare scenarios will a hypothetical infant or child receive a significantly higher calculated dose than an adult in a similar exposure scenario.'' *Id.* at 8-9. Such rare scenarios ''tend to be ones where someone could only get exposed to residual radioactivity through a much more limited set of pathways,'' one example of which is ''when the only pathway is through milk, since children generally drink more milk than adults.'' *Id.* Thus, according to Mr. McKenney, ''[i]f milk is the only pathway that could expose the individual to a dose, then the child would be a better representation of the average member of the critical group. But in most situations, especially ones involving multiple pathways and multiple radionuclides, the total dose of the adult is greater than or similar to that of a child.'' *Id.* at 9.

A central challenge put forth by CAN in this proceeding questions the use of an adult or a ''Reference Man'' in calculating the doses in question, asserting that children take up radiation at different rates than adults, CAN Proposed Findings at 19-20, disagreeing with the position of the Applicant and Staff that ICRP-72 and ICRP-60 are not applicable in this proceeding, and asserting that both EPA and DOE have used dose conversion factors from ICRP-72. Resnikoff Rebuttal at 6-9.

In support of its contention challenging these and other factors relating to dose, CAN expert witness Dr. Resnikoff in his prefiled testimony, using the ''family farm scenario'' posited by CY in its application, *see* LBP-01-25, 54 NRC 177, provided two sets of calculations of dose contributions, those from water pathways and those from all other pathways. Resnikoff Direct at 9-10. For the water component, he used a spreadsheet and the radionuclide that is the ''major contributor to radiation dose,'' Sr-90, in a concentration of 143 picocuries per liter, the maximum Sr-90 concentration found in one well, according to a June 2001 Quarterly Groundwater Monitoring Report. *Id.* at 10 & n.17. Applying certain assumptions regarding intake of water, milk, and meat, taken from EPA's August 1997 *Exposure Factors Handbook,* as well as input assumptions from RESRAD and dose conversion factors from ICRP-60 and ICRP-72, *id.* at 10 & n.18, Dr. Resnikoff calculated total radiation doses to an adult, a 5-year-old child, and a 10-year-old child, at 11.2, 14.4, and 18.5 millirem per year (mrem/yr),

[6] According to the LTP, ''[s]urface or volumetric concentrations that correspond to the maximum annual dose criterion are referred to as [DCGLs]. A DCGL established for the average residual radioactivity in a survey unit is called a $DCGL_w$. Exh. 1 at 5-2.

respectively, *id.* at 11. He then added these to the doses from ''water independent pathways calculated by RESRAD,'' assuming — unlike CY or the Staff — a level of ''feedback'' based on Sr-90 contaminated water being used to irrigate the land, causing a buildup of radionuclides in the soil, which he contends would ultimately produce a result of 4.576 picocuries per gram (pCi/g). *Id.* at 11, 18-19. He also used a different input parameter for time spent outdoors, based on 1999 New England Agricultural Statistics. *Id.* at 19 & n.21. In addition, Dr. Resnikoff applied different mass loading parameters and added 100 milligrams per day and 200 milligrams per day of incidental soil ingestion for an adult and child, respectively. *Id.* at 20.

Dr. Resnikoff's calculations produce total doses of from a minimum of 61.9 mrem/yr to a maximum of 147.1 mrem/yr for an adult, from 80.0 to 180.2 mrem/yr for a 10-year-old child, and from 44.0 to 142.8 mrem/yr for a 5-year-old child, all of which are ''much greater'' than the 25 mrem/yr allowed by 10 C.F.R. § 20.1402. *Id.* at 21 & Table 6. Pointing out that he did not include all radionuclides in his calculations, Dr. Resnikoff suggested that the Haddam Neck site must be remediated to a greater extent than provided in the LTP. *Id.* at 21.

CY expert witnesses disputed Dr. Resnikoff's calculations, noting among other things that he (and CAN) implicitly assume that the LTP proposes to release the site in its ''as is'' condition, when this is not what the LTP proposes. CY Panel Rebuttal at 17. Rather, the LTP proposes first to calculate the DCGLs that correspond to a yearly dose of 25 millirems for each radionuclide and each media separately. *Id.* Later, in performing the Final Status Survey for a land survey unit, as indicated above, sampling and the application of surrogate relationships will determine the concentrations of the various radionuclides present in soil and groundwater that will affect the survey unit. These concentrations will then be compared to the radionuclide- and media-specific DCGLs in the LTP to determine the fraction of the DCGL (fraction of 15 mrem/yr) contributed by each radionuclide for each relevant medium. *Id.* at 17-18. Finally, the sum of the fractions must be less than 1, according to the ''unity Rule described in MARSSIM and committed to in § 5.8.4 of the LTP.'' *Id.* at 18.

According to the CY Panel, the correct method of showing the effect upon a family consisting of two adults, one 10-year-old child, and one 5-year-old child, employing ''Reference-Man based DCGLs,'' would be to calculate ''children'' DCGLs utilizing input parameters that apply to children, calculating the family average DCGL, and then comparing that value to the Reference Man DCGLs contained in the LTP for the important radionuclides present at the site. *Id.* Dr. Resnikoff did not, however, do this, according to the panel. *Id.*

CY expert witnesses Chabot, *see* Chabot Rebuttal at 4-5, and Taylor also disputed Dr. Resnikoff's ''feedback'' theory, with Dr. Taylor stating that it ''violates fundamental physical laws and neglects key physical processes.'' In particular, according to Taylor, it ''does not conserve radionuclide mass, does

not consider radioactive decay, ignores the effects of precipitation, and neglects the discharge of groundwater to the Connecticut River.'' CY Panel Rebuttal at 13. Performing what he contends is the correct incremental Sr-90 burden to the soil under the ''feedback'' theory, Dr. Taylor produced a predicted value of less than 1% of Dr. Resnikoff's calculated value, a figure ''so small as to be captured entirely by the uncertainties and conservatism in the calculations done without regard to this value,'' producing a ''dose consequence of . . . zero.'' *Id.* at 14. Dr. Taylor in his own calculations used, among other things, a ''mass balance model''; equilibrium partitioning of Sr-90 between the water and solid phases, and radioactive decay; the application of natural precipitation that would bring uncontaminated water into the subsurface system; leaching of Sr-90 from soil in the unsaturated zone and subsequent transport to the saturated zone; and the transport of Sr-90 in the saturated zone. *Id.* at 13-14.

The resulting mathematical model, according to Dr. Taylor, takes the form of a system of differential equations, which are then solved for the soil concentration and groundwater concentrations as a function of time using the physical and chemical characteristics of the system. Using this calculation, a predicted peak value of 0.0419 pCi/g of Sr-90 would occur after 34 years of irrigation. *Id.* at 14. According to Dr. Taylor, this value is conservative in that it assumes that the land being irrigated with contaminated groundwater overlies the plume of the Sr-90 contamination, whereas if other land were being irrigated with contaminated groundwater, or if the well were installed outside the Sr-90 contaminant plume, then the ''feedback'' phenomenon would be diminished or eliminated. *Id.*

Dr. Resnikoff disagreed with Dr. Taylor's inputs, and also proposed breaking the saturated zone into three layers, with the top one, where plant roots are located, being contaminated more at first. Tr. 1961-70, 2013-14, 2046-49. Dr. Resnikoff also stated that in selecting his soil concentration values he used areas that are not close to the plant, which he assumed might not be remediated as those close to the plant might be, Tr. 2022-23, and questioned whether there were actual plans to clean up the water. Tr. 2025, 2084-85. He admitted that 95% of what he obtained from his soil dose comes from the ''feedback'' theory for the adult, Tr. 2049-50, that he had not calculated as part of this theory the time it would take for various radioactive elements to decay, and that decay time would lower his results, *id.* at 2053-54; *see* Tr. 2056-60. He maintained that the correct value would lie between his and that of Dr. Taylor, but he did not know where within that range. Tr. 2063.

After the hearing, in the late-filed exhibit submitted by CY, Dr. Taylor provided additional calculations on the ''Effects of Recycling Sr-90 Contaminated Groundwater as Irrigation Water.'' Exh. 60. These calculations support Dr. Taylor's testimony at the hearing to the effect that using Dr. Resnikoff's model and running the proper calculations according to Dr. Resnikoff's recommendations, including the division of the unsaturated layer into thirds, the resulting peak Sr-90 concentration would be 0.26 pCi/g, which peak would occur approximately 30

years after the onset of irrigation. *See* Tr. 2109. This value is, according to Dr. Taylor's calculations, approximately 5% of the value that Dr. Resnikoff used in his analysis. *Id.*

In CAN's Proposed Findings of Fact and Conclusions of Law, it states that it finds Dr. Taylor's calculations reasonable, implicitly admitting that its original proposed value of 4.576 pCi/g was greatly overstated, but still asserts that the dose significance of the feedback buildup phenomenon was not evaluated by the Applicant, and that the effect would be significant. CAN Proposed Findings at 15-16. As the Staff points out, however, the calculations provided to prove this do not take into account the decay of Sr-90 during the 30-year period used in the example. Staff Reply Findings at 4.

More generally with regard to Contention 6.1, according to the prefiled direct testimony of CY's witness panel of Mellor, Heider, McGrath, Darois, and Tarzia, prepared by all panel members collegially but with certain members taking the lead in certain areas, the LTP provides calculations for ''Derived Concentration Guideline Levels (DCGLs) for soil, buildings and groundwater,'' corresponding to ''a calculated amount of residual radioactivity at the time of unrestricted release of the site that could result in an average member of the critical group receiving the dose limit in Subpart E over some year within the next 1000 years, using a very conservative set of exposure assumptions and conditions.'' CY Panel Direct at 3, 19.[7]

According to its expert panel, CY in its calculations used an adult as representative of the ''average member of the critical group,'' which is appropriate as well as ''consistent with all applicable industry standards.'' *Id.* Further, according to the panel's testimony, if children were included in the critical group, the final DCGLs would be essentially identical to those presented in the LTP, because ''the conversion factors used to equate dose into risk are based on data from various populations exposed to very high doses of radiation, such as the atomic bomb survivors,'' which include individuals of all ages. *Id.* at 19-20. Therefore, the panel says, ''variation of the sensitivity to radiation with age and gender is built into the standards, which are based on a lifetime exposure from birth to old age.'' *Id.* at 20.[8] Although CY calculated its doses applying the metabolic parameters of the ''Reference Man'' discussed in ICRP-23, which are more representative of

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[7] *See supra* note 5.

[8] The standards the panel refers to are those found in 10 C.F.R. Part 20. Under Subpart D of Part 20, regarding radiation dose limits for individual members of the public, all licensees are to conduct their operations so that, among other things:

> [t]he total effective dose equivalent [TEDE] to individual members of the public from the licensed operation does not exceed 0.1 rem (1 mSv) in a year, exclusive of the dose contributions from background radiation, from any medical administration the individual has

(Continued)

an adult male, the panel asserts in its testimony that the ''conservatism in the dose conversion factors ensures that the calculated doses are protective of all groups and genders.'' *Id.*

The panel explains this conservatism by stating that the dose criterion for unrestricted use of 25 mrem/yr TEDE to the average member of the critical group[9] is a ''substantial margin of safety below the public dose limit of 100 mrem/yr. . . .''[10] *Id.* The panel also cites NUREG-1757 for the statement that ''only in rare cases will a non-adult individual receive a higher dose than an adult individual in a similar exposure scenario,'' providing as an example the same one described by Staff witness McKenney — an operating plant where radioiodine is a necessary consideration due to the absorption of radioiodine in milk, since children generally drink more milk than adults — in contrast to most situations involving multiple pathways, including the resident farmer scenario used in the LTP, in which the total intake for an adult would be greater than that of a child. *Id.* at 25-26 (*citing* NUREG-1757, Vol. 2, Consolidated NMSS Decommissioning Guidance).

According to the panel, even using other factors in the calculations, there would be no significant impact on calculated doses and DCGLs. *Id.* at 26. According to the panel's calculations, some doses for children would be higher, but these would be for radionuclides that are present at the site in very low quantities and have low dose impacts; indeed, some doses to children, from common radionuclides, would be lower. *Id.* at 27-28. Also, their analysis shows that while the dose to children would be 3% to 4% higher than for adults from soil — causing the average family dose to increase by 1.5% to 2% — the DCGL from groundwater would increase

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> received, from exposure to individuals administered radioactive material and released under § 35.75, from voluntary participation in medical research programs, and from the licensee's disposal of radioactive material into sanitary sewerage in accordance with § 20.2003.

10 C.F.R. § 20.1301(a)(1).

As support for its statement that ''variation of the sensitivity to radiation with age and gender is built into the standards, which are based on a lifetime exposure,'' the panel cites the Commission's statement in a different context (relating to spent fuel storage casks) at 64 Fed. Reg. 48,259, 48,263 (Sept. 3, 1999). There, the Commission went on to state:

> Consequently, the unrestricted release limit of 0.25 mSv (25 mrem), a small fraction of the annual public dose limit, is protective of children as well as other age groups because the variation of sensitivity with age and gender was accounted for in the selection of the lifetime risk limit, from which the annual public dose limit was derived.

Id. (cited by CY Panel Direct at 23. The panel also cites, among other things, the Commission's statement to a similar effect at 65 Fed. Reg. 25,241, 25,245 (May 1, 2000), as well as an EPA statement that ''the assumptions exemplified by Reference Man adequately characterize the general public, and a detailed consideration of age and sex is not generally necessary.'' CY Panel Direct at 25 (citing a document described as ''EPA's Draft Guidance for Exposure of the General Public [EPA 1994]'').

[9] *See supra* note 5.

[10] *See supra* note 8.

by 7% and 69%, respectively, for 5- and 10-year-old children, meaning that the dose to children of these ages would decrease by the same amount. *Id.* at 29; Exh. 6 (Panel Attachment 6, ''Summary and Analysis of Soil and Groundwater DCGLs for Different Age Groups'').

In addition, Dr. Chabot stated, among other things, that the 25-mrem dose level is sufficiently low that the dose differential that might accrue to any individual member of the ''critical group'' other than the ''Reference Man'' will ''not be a significant concern.'' Chabot Direct at 8. As examples of this, Dr. Chabot noted that allowances for releasing patients who have received therapeutic administration of radionuclides include the requirement that the projected dose to another individual with whom the patient might be in contact does not exceed 500 mrem, 20 times greater than the 25-mrem dose relevant in this proceeding, and that in many parts of the country, including New England, the annual variation in background dose can exceed 25 mrem. *Id.* at 9. Dr. Chabot stated that it is ''not realistic to expect a child to receive *more* than 25 mrem/yr from a site that would give reference man exactly 25 mrem/yr.'' *Id.*

The panel in its prefiled testimony also addressed the mass loading factors relating to inhalation and water consumption, in which CY used the parameter range provided in NUREG/CR-6697, and the methods provided in NUREG/CR-6676, suggesting that the upper-range values in NUREG/CR-5512 that were utilized by CAN are not appropriate for determining yearly dose. CY Panel Direct at 30-35 (*citing* NUREG/CR-6697, Development of Probabilistic RESRAD 6.0 and RESRAD-BUILD 3.0 Computer Codes, ANL (December 2000); NUREG/CR-6676, Probabilistic Dose Analysis Using Parameter Distributions Developed for RESRAD and RESRAD Build, ANL (July 2000); NUREG/CR-5512, Residual Radioactive Contamination from Decommissioning-Parameter Analysis, Sandia National Labs (Oct. 1999); U.S. Nuclear Regulatory Commissioning Preliminary Guidelines for Evaluating Dose Assessment in Support of Decommissioning (Sept. 23, 1999).

With regard to the water consumption parameter used in the LTP, i.e., 478.5 liters per year, the panel defended this and disputed CAN's use of a 2-liter-per-day value, *id.* at 37-39 (*citing* NUREG/CR-5512, Vol. 3, at 6-126), noting that the EPA *Exposure Factors Handbook* from which CAN's figure appears to have been taken itself describes this as an ''upper-percentile'' rate corresponding to the 84th percentile of intake rate distribution among adults in a 1989 study, *id.* at 39-40. The panel notes that the handbook also describes a 1-liter-per-day intake for children as an upper percentile intake rate, and suggests a ''Recommended Drinking Water Intake Rate for Adults — 50th percentile'' of 1.3 liters per day, which is equivalent to 474.8 liters per year. *Id.* at 40 (*citing* EPA *Exposure Factors Handbook* at 3-1, 3-26). The panel also notes that the distinction in the EPA handbook between less active and more active adults is that the latter consume only about 14% more water. Also relevant, according to the panel, was

another study cited in the EPA handbook that showed 14% lower water intake in the northeast than in the other three regions of the country. *Id.* (*citing* EPA Handbook at 3-3, 3-8).

Specifically with regard to children, the panel challenged the intake rates used by Dr. Resnikoff, namely, 1.5 liters per day for 5- and 10-year-old children, which correspond to the 90th and 95th percentiles, respectively, in the EPA *Exposure Factors Handbook.* CY Panel Rebuttal at 20 (*citing* EPA Handbook at 3-26). CY also challenged values used by Dr. Resnikoff for water intake through cow's milk and meat, as well as dose conversion factors he used for ingestion and inhalation, and soil ingestion rates. Additionally, the panel produced calculations showing that correcting Dr. Resnikoff's errors would produce results such that a family average dose (including a 5-year-old child and a 10-year-old child) would be equal to slightly over 99% of the ''Reference Man'' dose used in the LTP. *Id.* at 21-25.

Dr. Chabot testified largely to the same effect, stating that taking the average of the doses calculated by Dr. Resnikoff for a family of two adults, one 10-year-old child, and one 5-year-old child, and then expressing that as a function of the adult dose, the result is a ratio of 1.05 to the adult dose, not significantly different, thereby effectively tending to disprove the theory that Reference Man is not an appropriate standard to use. Chabot Rebuttal at 8. According to Dr. Chabot, Dr. Resnikoff's dose values are ''based on erroneous and/or arbitrary assumptions and, as such, cannot be used to draw informative conclusions.'' *Id.* at 9.

The CY panel, as well as its witness Foltz, also challenged CAN's assumptions about time spent outdoors in the family farm scenario, i.e., 2190 hours per year, which is the default input parameter for the RESRAD computer program. CY Panel Direct at 46; *see also id.* at 34, 42-47; Prefiled Direct Testimony of Jeremy D. Foltz, Ph.D., fol. Tr. 1845 [hereinafter Foltz Direct]; Prefiled Rebuttal Testimony of Jeremy D. Foltz, Ph.D., fol. Tr. 1845 [hereinafter Foltz Rebuttal]. The panel challenged reliance on the default input without any justification, and argued that its own figures are more consistent with NRC and EPA guidance and research on farms in the lower Connecticut River area. CY Panel Direct at 46-47. Specifically, the panel cites NUREG/CR-5512 for the guidance that performance of dose calculations is to be done in ''a prudently conservative (*not worst case*) manner . . . .'' CY Panel Rebuttal at 20 (*citing* NUREG/CR-5512, Vol. 1, at xiii). Dr. Foltz went so far as to challenge the likelihood that the land would ever be used for farming, based on his own research on agriculture both in the Connecticut area and worldwide, as well as the sloping and swampy character of the land at the Haddam site, and plans to bury concrete debris on the site, which would render the soil unproductive for farming. Foltz Direct at 1-4.

The LTP uses a value of 11.81% of a year for time spent outdoors, which corresponds to 1035 hours per year, equivalent to 20 hours per week on a whole-year basis or 46 hours per week during the 156-day growing season in the

Haddam, Connecticut area. CY Panel Direct at 43. This corresponds to the sum of time spent outdoors and time spent gardening provided in NUREG/CR-5512, which uses figures relating to men, who, according to various studies, spend more time outdoors than women. *Id.* (*citing* NUREG/CR-5512, Vol. 3, Table 6.11, § 6.2.3, and authorities cited therein). While agreeing that increasing the time-spent-outdoors parameter will increase the dose received by a modeled individual, the panel noted that this affects dose from each radionuclide differently, with the most significant impact occurring with radionuclides such as cobalt-60 and cesium-137, which cause whole-body exposure to gamma radiation. *Id.* at 42. With these, a 20% increase in time spent outdoors, while maintaining a constant time spent indoors (thereby increasing total time spent at the site), will result in decreased cobalt-60 and cesium-137 DCGLs of 7% and 3%, respectively, while reducing time spent indoors by the same amount as the increase in time spent outdoors will result in comparable DCGL decreases of 4% and 2%. *Id.*

CY witness Foltz did an analysis based on a posited 156-day growing season, and found that full-time vegetable farmers would spend a maximum of 1100 hours outdoors per year, while dairy farmers would spend 600 hours per year, and hay and/or horse farmers would spend 300 hours per year. *Id.* at 44 (*citing* Exh. 48 (Report: ''Potential Farming Activities in the Lower Connecticut River Valley'' (1/14/02)). Dr. Foltz stated that he believed the LTP 11.81% figure to be too high and ''extremely unlikely of occurrence in the real world.'' Foltz Direct at 5. He also asserted that CAN's outdoors values are based upon an incorrect reading of New England Agricultural Statistical Service data, taking farm work as being all outdoors when in fact it is based on both outdoor and indoor work, such as milking cows. Foltz Rebuttal at 1.

CAN challenged Dr. Foltz's testimony about the length of the growing seasons, eliciting through cross-examination that he had used the same growing season as that for the town of Colchester, located in the hills 10.5 miles from Haddam and not on the same river as that on which Haddam is located. CAN also established that Chester, a town on the Connecticut River just south of Haddam, has a growing season that is 39 days longer — 195 days — than Colchester's 156-day season. Tr. 1853-58. Further, on cross-examination by CAN, Staff witness Thaggard agreed that if a person spent more time outdoors than that estimated by CY, the dose would increase, Tr. 2099, and that some of CY's data was based on time that people spend gardening, or ''light farming and gardening,'' as opposed to farming. Tr. 2095-96.

As CY points out in its Reply Findings, however, CAN did not provide any calculations on the effect of the longer growing season as compared with the shorter one, whereas CY did offer testimony that increasing time spent outdoors would have a ''relatively low overall effect on dose.'' CY Reply Findings at 8.

With regard to the ''time spent outdoors'' issue, the Staff's determination was that CY's use of NRC default behavioral and metabolic parameters was acceptable, based on its use of the generic residential farmer scenario as the basis for determining dose to the critical group. McKenney/Thaggard Direct at 12. The NMSS Decommissioning Standard Review Plan (NUREG-1727) permits a licensee who chooses to use a generic exposure scenario, such as the resident farmer or building occupancy scenario, also to use the default behavioral and metabolic parameter values of NUREG/CR-5512, Volume 3, which postdate the default values from RESRAD that Dr. Resnikoff used and are therefore considered to be more up-to-date. *Id.* at 12-13. Moreover, in its prefiled rebuttal testimony, the Staff also notes that NUREG-1727 states that default parameter values in RESRAD (used by CAN expert Resnikoff) ''are not considered acceptable for performing dose assessments in support of decommissioning because some of these parameter values do not have a strong technical basis.'' McKenney/Thaggard Rebuttal at 6-7 (*citing* NUREG-1727 at C79). The value used by Dr. Resnikoff is ''considered to be extremely conservative as it would only be representative [of] the average attributes of someone using the site as a residential farmer in circumstances in which the time spent outdoors is within the top 10 percent of farms nationally.'' *Id.* at 7. Instead, as in NUREG/CR-5512, the Staff recommends using a mean, which is considered to be ''representative of the average attributes of the critical group.'' *Id.*

The Staff took a similar approach to its evaluation of the ''time spent outdoors'' issue in considering CY's drinking water consumption rate parameter. Because both are behavioral parameters, generic NRC-recommended default values are considered by the Staff to be permissible to use, in accordance with the guidance of NUREG-1727. McKenney/Thaggard Direct at 13-14. Moreover, the LTP value of 478.5 liters per year is consistent with the value recommended in NUREG/CR-5512, the statistical distribution for which was developed after reviewing and considering several sources of information, including the EPA value and the RESRAD value of 510 used by CAN expert Resnikoff. *Id.* at 14. The Staff believes that additional water pathways suggested by CAN, including inhalation and absorption through bathing, showering, and swimming, ''would not provide any significant contribution to dose and therefore does not affect the conservatism of the modeling assumptions.'' *Id.*

Also according to Mr. Thaggard, under Dr. Resnikoff's ''feedback'' theory, ''it would take over 700 years to accumulate enough activity of Sr-90 in the soil, based on the assumed irrigation rate used in Dr. Resnikoff's analysis,'' to obtain his results, when in actuality the Sr-90 will have essentially decayed away during such a 700-year period. McKenney/Thaggard Rebuttal at 3-4. Mr. Thaggard also questioned Dr. Resnikoff's estimates of soil concentrations of Co-60 and Cs-137, because ''[t]hey may not be representative of soil conditions at or after the time of site release,'' and ''are also not appropriate values to represent the average

concentration over a 15,600 m^2 area,'' which is ''the maximum allowable size of a survey unit.'' *Id.* at 4. According to Mr. Thaggard, Dr. Resnikoff's assumption that an area would be allowed to remain with an average concentration of Co-60 that would exceed the permissible DCGL and release limits is unreasonable, as is his assumption that any individual would be exposed to Co-60 and Cs-137 at the same time as to Sr-90 concentrations, because of varying decay rates. *Id.* at 4-5.

Further, although Dr. Resnikoff relied on a water consumption rate that was previously used by the NRC in a 1994 guidance document in which ''[d]ose calculations focused on the maximum exposed individual,'' with the promulgation of the current license termination rule in 1997 the ''focus [was changed] to the average member of the critical group.'' *Id.* at 5. From that time to the present, relevant NRC guidance has been located in NUREG-1727, with ''[s]upporting documentation on specific parameters . . . contained in NUREG/CR-5512, Volume 3. *Id.* at 6. According to Mr. Thaggard and Mr. McKenney:

> The intent of the screening analyses was to ensure a high level of assurance that someone using a site released using the screening analysis would not receive a dose greater than the release limit. In the implementing guidance, Staff developed statistical distributions for parameters used in the screening analysis. These included parameters that were characterized as one of three types; physical, behavioral or metabolic. Physical parameters are those that describe the environment (e.g., rainfall, type of soil, size of the site, etc.). Behavioral and metabolic parameters describe the activities and characteristics of the critical group. These include matters such as how much drinking water is consumed, how much food is eaten, and the individual's breathing rate. Because the purpose of the calculation is to ascertain dose to the average member of the critical group, for behavioral and metabolic parameters the mean of the statistical distribution is selected for use in the screening analysis. Because the water consumption rate is classified as a behavioral type parameter in Staff guidance, the mean of the distribution is considered appropriate for evaluating impacts to the average member of the critical group. The statistical mean value for the drinking water ingestion rate for a resident farmer in the Staff's guidance, in NUREG-5512, Volume 3 at p. 6-30, Section 6.2.6, is approximately 1.3 Liters per day or a total of 478 liters per year.

Id.

In response to Dr. Resnikoff's prefiled testimony, the Staff in its rebuttal prefiled testimony also noted the inappropriateness of his calculations being based on doses that would result if the site were released in its present state of contamination, since further remediation would remedy this. *Id.* at 2. Staff expert Thaggard stated further as follows:

> The purpose of the decommissioning process is to ascertain the extent of contamination and perform remediation to clean up the contamination to the point that the

> regulatory release criteria are met. The fact that the site may currently be contaminated beyond that criteria only means that further remediation is necessary. The only time when this type of calculation would be meaningful is after all remediation has been completed and the area for which the dose is calculated is being released.

Id.

When the Staff reviewed the LTP with regard to the dose modeling issue and children, it considered whether different doses to infants and children would be appropriate. McKenney/Thaggard Direct at 9. In its screening analysis it determined that ''the primary residual radioactivity (e.g., Co-60 and Cs-137) at the Haddam Neck site results in external radiation being the most important route of exposure.'' *Id.* Primarily using ''default probabilistic parameter values in RESRAD version 6.2,'' the Staff in its analysis modified the dose conversion factors to use the ''appropriate age-specific dose conversion factors from International Commission on Radiological Protection (ICRP) ICRP-72 (ICRP, 1995) to calculate internal dose to an adult, infant or child in the comparison, as appropriate.'' *Id.* The Staff also ''modified the amount of soil ingestion, breathing rate, and food intake to correspond to an infant or child based on the age-specific information in NCRP Report No. 129 (NCRP, 1999) and Federal Guidance Report No. 13.'' *Id.* In addition, the Staff ''increased the external dose calculated by RESRAD by 30 percent for an infant and 20 percent for a child, as suggested by NCRP Report No. 129, as a conservative estimate of the effect of properly accounting for the effective height of the infant or child.'' *Id.* In the opinion of Staff expert McKenney:

> Because the external exposure is the most important pathway, a more detailed and realistic analysis that would likely reduce the assumed outdoor exposure time for an infant or child would result in lower total doses than the screening analysis. Also, a more detailed analysis would refine the external dose factors for children. To see if more detailed calculations would be necessary, the NRC staff maintained the same exposure time for an infant or child as that used for the adult. This assumption would skew the outcome since the exposure time for an adult would normally be significantly greater than that for a child. The results of the screening approach by the NRC staff found that the results for infant or child were similar to more detailed modeling done for the adult. Because the results of a more detailed calculation would be expected to be lower, since the exposure time for a child would be adjusted downward, the NRC staff did not calculate further the dose to an infant or a child. Therefore, the use of the adult as the average member of the critical group provides reasonable assurance that any actual doses will be less than the unrestricted release limit.

Id. at 10.

According to Staff expert Thaggard, the Staff also reviewed the approach and results of the sensitivity analysis used by CY to ''identify key parameters and the selection of appropriate parameter values for those parameters,'' conducted a sensitivity analysis ''in order to determine the impact of a particular parameter on dose,'' verified ''that appropriate parameter values were used for those parameters that were not included within the sensitivity analysis,'' and performed its own independent probabilistic calculations to verify that the DCGLs calculated by CY are conservative. *Id.* at 11. The Staff determined that CY had carried out ''an acceptable approach for identifying sensitive parameters, and assigning parameter values for these parameters.'' *Id.* It found the approach used by CY for conducting its sensitivity analysis to be consistent with that used by Argonne National Laboratory in NUREG/CR-6676, a document produced under contract with the NRC to develop the probabilistic version of the RESRAD computer code. *Id.* The Staff also found that for those parameters that were not included in the sensitivity analysis, CY had used parameter values consistent with those recommended by NRC guidance. *Id.* at 11-12. Further, the Staff's own independent assessment showed that the DCGLs calculated by CY are conservative. *Id.*

Thus, although the relative differences shown by Dr. Resnikoff are in fact comparable to the results of the Staff's screening analysis, more realistic calculations of exposure would reduce differences between exposure to children and adults, according to Staff experts McKenney and Thaggard, and the conservative nature of the overall family farm scenario, along with factors such as decay times, and the rule's focus on the ''average'' member of the critical group, lead the Staff to view the LTP's use of an adult to be appropriate. McKenney/Thaggard Rebuttal at 8-9. In this regard, the Staff noted that a 5-year delay in a family moving onto the site to farm would reduce the dose from Co-60 by approximately 48% and the dose from Cs-137 and Sr-90 by approximately 10% each. *Id.* at 9.

The Staff adds that the 25-mrem/yr dose limit itself, which refers to the ''total dose from all pathways and all radionuclides,'' supports the LTP dose calculations. According to Mr. McKenney, the Commission in establishing the rule recognized that ''a dose of this limit would result in a lifetime fatal cancer risk of approximately 0.05%, assuming the linear no-threshold hypothesis and that the individual would be exposed for a period of 30 years at the dose limit,'' but ''[b]ecause of their half-lives, the use of a 0.25 mSv/y (25 mrem/y) limit overestimates the lifetime risk for Co-60 by a factor of 4 and Cs-137 and Sr-90 by approximately a factor of 50%.'' *Id.* at 9-10. Continuing, Mr. McKenney states:

> Overall, based on understanding that the screening analysis overstated the differences, the conservative nature of the scenario, previous staff experience with the inherent uncertainties involved in dose modeling, and the risks associated with the 0.25 mSv/y (25 mrem/y) unrestricted release limit for these radionuclides, the

> staff has reasonable assurance that the licensee's use of an adult was an adequate representation of the dose that the average member of the critical group may receive. A difference of approximately 30% or less, as calculated in the screening analyses, in the selection of the critical group is not deemed to be significant in relation to the overall assessment.

Id. at 10.

IV. CONCLUSIONS OF LAW

The governing standards in a license termination proceeding such as this one are found in 10 C.F.R. §§ 50.82(a)(9) and (10). Section 20.1402, regarding ''Radiological criteria for unrestricted use'' (a section found under 10 C.F.R. Part 20, Subpart E, which defines the ''Radiological Criteria for License Termination'') is also relevant.

Section 50.82(a)(9) provides in pertinent part as follows:

> All power reactor licensees must submit an application for termination of license. The application for termination of license must be accompanied or preceded by a license termination plan to be submitted for NRC approval.
>
> . . . .
>
> (ii) The license termination plan must include —
>
> (A) A site characterization;
>
> (B) Identification of remaining dismantlement activities;
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> (C) Plans for site remediation;
>
> (D) Detailed plans for the final radiation survey;
>
> (E) A description of the end use of the site, if restricted;
>
> (F) An updated site-specific estimate of remaining decommissioning costs; and
>
> (G) A supplement to the environmental report, pursuant to § 51.53, describing any new information or significant environmental change associated with the licensee's proposed termination activities.

10 C.F.R. § 50.82(a)(9)(ii).

Section 50.82(a)(10) establishes the following standard for approval of an LTP:

> If the license termination plan demonstrates that the remainder of decommissioning activities [1] will be performed in accordance with the regulations in this chapter, [2] will not be inimical to the common defense and security or to the health and safety of the public, and [3] will not have a significant effect on the quality of the environment and after notice to interested persons, the Commission shall approve the plan, by license amendment, subject to such conditions and limitations as it deems

appropriate and necessary and authorize implementation of the license termination plan.

10 C.F.R. § 50.82(a)(10).

Section 20.1402, as noted above, provides in relevant part as follows:

> A site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a TEDE to an *average member of the critical group* that does not exceed 25 mrem (0.25 mSv) per year, including that from groundwater sources of drinking water, and that the residual radioactivity has been reduced to levels that are as low as reasonably achievable (ALARA). [Emphasis added.]

As indicated by the Commission in an earlier license amendment application proceeding involving proposed approval of an LTP, the license termination plan approval process has the ''important *future* consequence'' of being petitioners' ''one and only chance to litigate whether the survey methodology is adequate to demonstrate that the site [will ultimately be] brought to a condition suitable for license termination,'' given that petitioners are precluded from participation in the final actual license termination stage.[11] *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 206-07 (1998) (emphasis in original). According to the Commission, the purpose of the LTP process is ''to ensure that the property will be left in such a condition that nearby residents . . . can frequent the area without endangering their health and safety.'' *Id.* at 208.

We thus take very seriously our responsibility to consider all of the evidence presented fully and fairly. All parties proffered evidence that was relevant to the matters at issue, persuasive in parts, and straightforwardly presented. We note in particular the very effective presentation of CAN's case through Ms. Bassilakis and its other nonattorney representatives, who provided a good-faith and strong presentation of their case, which involves serious matters of concern to those they represent, the residents who live near the Haddam Neck site. We also note the effective presentation of limited appearance statements by many of these residents, which we found to be representative of the best in citizen participation in the public arena.

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[11] As the Commission noted in *Yankee,* 10 C.F.R. § 50.82(a)(11) provides that:

> The Commission shall terminate the license if it determines that —
>
> (i) The remaining dismantlement has been performed in accordance with the approved license termination plan, and
>
> (ii) The terminal radiation survey and associated documentation demonstrates that the facility and site are suitable for release in accordance with the criteria for decommissioning in 10 CFR part 20, subpart E.

Yankee, CLI-98-21, 48 NRC at 206 n.9.

With the above standards and guidance in mind, and based on the evidence presented in this proceeding, we reach the following conclusions in this proceeding:

A. Contention 1.5

With regard to Contention 1.5, the Board majority finds that Connecticut Yankee's LTP satisfies the requirements of 10 C.F.R. §§ 50.82(a)(9) and (10), a conclusion not joined by Administrative Judge Young with regard to the specific issue of CY compliance with the requirement of section 50.82(a)(9)(ii)(D) for ''[d]etailed plans for the final radiation survey.''

1. Hot Particles

Regarding Contention 1.5 and hot particles, the Board considers, first, CAN's testimony challenging the ability of the plan proposed in the LTP to detect hot particles. In challenging the sensitivity of the LTP proposal for scanning, Dr. Resnikoff departed in his dose calculations from accepted scientific information concerning the low probability of a 10-micron particle depositing in the lung; used the radiological properties of a particle from another reactor without demonstrating its relevance to the Haddem Neck plant; and used, in error, a 1-meter detector scanning height. Moreover, Dr. Resnikoff conceded at the hearing that a 10-micron particle would only get deep in the lungs with less than a 5% efficiency. Tr. 1746-51; Exh. 42. Given this concession, the Board believes that Dr. Resnikoff's dose calculations should be modified to a 5% probability of occurring, leaving his calculation at a small fraction of the dose limits.

Dr. Resnikoff's calculations also improperly use the inhalation dose conversion factors in ICRP-72, which are not intended to be used to calculate dose from a single, relatively large particle, but instead assume inhalation of an aerosol consisting of small particles, having an activity median aerodynamic diameter (AMAD) of 1 micron. Tr. 1642-46. This error alone results in Dr. Resnikoff greatly overstating the potential effective dose. Prefiled Rebuttal Testimony of George E. Chabot, Ph.D., C.H.P. (Feb. 28, 2003), fol. Tr. 1443, at 2-3 [hereinafter Chabot Rebuttal]. As explained by Dr. Chabot, the mathematical model used in ICRP-72 assumes that a large number of particles are inhaled and distributed evenly throughout the whole respiratory tract. Tr. 1570-72, 1579. Further, because the particles are small, they are assumed to be subject to dissolution in the lung fluids and thereby transported to the blood system and from there to other internal organs. *Id.* at 1570-71. If a single particle is inhaled, none of those assumptions would apply. *Id.* at 1571, 1579. Instead, the dose delivered would

be very localized, and the dose consequences would be entirely different. *Id.* The Board is not persuaded by Dr. Resnikoff's testimony in this regard.

Since it is CY's intent to completely dismantle the Haddam Neck Plant, with the exception of the separately considered fuel storage facilities, what will remain at the site will essentially be a ''green field'' condition, assuming all relevant inspections are done and all requirements met during the final survey. Under these requirements, it will be incumbent on CY to demonstrate in the FSS — the final radiation survey performed after an area has been fully characterized and remediation has been completed — that this green-field condition will meet the release criteria for unrestricted use of Subpart E. With respect to hot particles, CY's soil sampling techniques are critical to making this showing and must be capable of detecting hot particles, and the NRC Staff will be responsible for assuring that they are so capable and do in fact detect any hot particles.

With regard to the requirement at 10 C.F.R. § 50.82(a)(9)(ii)(D) for ''detailed plans for the final radiation survey,'' the majority of the Board reasons that because the final radiation survey is not expected to be conducted until CY has completed remediation, it cannot, of necessity, be required to include details of its survey implementation unknown at the time the LTP is submitted to the Staff. As argued by CY and the Staff, what CY is required to provide in the LTP is as much detail of its proposed methodology for the final radiation survey as it can reasonably provide before it has the necessary data to conduct the survey. Indeed, the Staff recognizes this necessity in its guidance to Staff reviewers in NUREG-1727, NMSS Decommissioning Standard Review Plan.

> Note to the NRC staff: NRC regulations require that decommissioning plans include a description of the planned final radiological survey. However, the Multi-Agency Radiological Survey and Site Investigation Manual (MARSSIM) appproach requires that certain information needed to develop the final radiological survey be developed as part of the remedial activities at the site. As such, a complete description of the planned final radiological survey may not be available at the time the licensee or responsible party submits the decommissioning plan.

Exh. 55 at 14.1-14.2.

Although not specifically identified as a process to identify hot particles, the use of the LTP scanning technique in LTP § 5.7.1.1, Exh. 1 at 5-38, as described by the CY Panel, is consistent with MARSSIM as a process to identify elevated areas of radioactivity. CY Panel Direct at 15-16; Exh. 45, § 6.4 at 6-13 to -15. The Board finds that the preponderance of the evidence supports CY's calculations of the sensitivity of this process. CY Panel Direct at 11-18; Exh. 2; Exh. 4; Exh. 5. As described in MARSSIM, scanning is performed to identify areas of elevated activity that may not be detected by other measurement methods. Exh. 45, § 6.4 at 6-10. Finally, the Board notes the Staff's recognition that all the

information required to completely design the FSS was not available at the time the Staff did its review of the LTP, and that it will therefore conduct performance-based, in-process inspections of CY's program to verify implementation of the commitments made by the Licensee in the LTP. Exh. 44 (Safety Evaluation Report) at 21.

Based on the above circumstances, the majority of the Board finds the LTP to be sufficiently detailed with regard to the detection of hot particles to assure that CY can demonstrate that it can meet the requirements of Subpart E and that the public health and safety can be protected, and sees no reason to condition the license on including in the LTP a procedure to detect hot particles, which by all indications would be identical to the scanning technique that CY now uses to meet the FSS requirements and the requirements of MARSSIM.

2. Surrogate Analysis

CAN's chief concern is that there are no data that have been presented that existing ratios between HTDs and ETDs are sufficiently consistent to permit use of the surrogate ratio technique. At this point, however, and until CY has completed remediation, it cannot, of necessity, include unknown details of its survey implementation. Therefore, what CY is required to provide in the LTP is as much detail of its proposed methodology for the final radiation survey as it can reasonably provide before it has the necessary data to conduct the survey. We expect in addition that the LTP should contain sufficient detail to describe the methodology CY proposes for use of surrogate ratio analysis.

We find that the LTP need not depend on a consistency of ratios being found, a priori. Whether or not such ratios exist or have been demonstrated at the moment, or will exist in the future (when the final status surveys are performed), is not relevant to the sufficiency of the LTP on the issue of ''hard to detect'' nuclides. The LTP proposes using the surrogate ratio technique only when survey data demonstrate that the necessary consistency of ratios between ETD and HTD radionuclides is present. Tr. 1808-11. We find that CAN's analysis of the sparse data from the site, *see* Exhs. 61, 62, which shows no reasonable correlation in surrogate ratios, to be premature.

We also find that the LTP, Exh. 1, § 5.4.7.3 at p. 5-18, bolstered by the requirements of MARSSIM, Exh. 45, § 4.3.2 at 4-4, adequately describes the methodology CY proposes for its final radiation survey. Specifically, the LTP specifies the process that will be followed to identify the radionuclides for which surrogate analysis will be needed, the steps that will be followed in determining whether additional samples are needed to generate a robust ratio, the investigative steps that would force the reexamination of the characterization data providing the basis for the ratio, and general survey considerations regarding the design of the final status surveys. Dehmel Direct at 13; Exh. 1 at 5-18. At the time

of the final status survey, the Staff must be satisfied with the basis of the ratios used. Dehmel Direct at 13. This will require that the Staff examine, among other things, whether an appropriate number of samples have been taken, whether the samples are similar in physical and chemical properties to the surrounding media or materials, and the variability of the data. *Id.* Further, the Staff must assure that the technical basis for any surrogate ratios be fully documented. *Id.* at 13-14. These issues will be the subject of Staff scrutiny during the in-process inspections and the Staff review of the final status surveys. *Id.* at 14.

Finally, we observe that, in effect, CAN's objection to the LTP on ''hard to detect'' nuclides appears to be based on a misunderstanding as to what the LTP proposes to do. Where sufficient consistency of ratios does not exist, the LTP proposes to use the very methodology that CAN expert Resnikoff recommends. *See* Tr. 1730. In his testimony at the hearing, Dr. Resnikoff recommended the following:

> DR. RESNIKOFF: Well, obviously if they don't find consistent ratios in a survey area they might try to break down the survey area into areas that where they do find consistent ratios.
>
> But if that can't be done, then they will have to individually measure hard to detect nuclides. Each soil sample will have to be analyzed for some of these hard to detect nuclides. That would be increasingly expensive to the characterization in the final status survey.

Tr. at 1730. When the ratios are not sufficiently consistent, and where sufficient consistency of ratios has been demonstrated, the LTP proposes to use a methodology that Resnikoff finds not only ''acceptable,'' but also ''fairly standard.'' Tr. 1654; Exh. 1 at 5-18 to -19. There thus appears to be no controversy between the parties for this Board to resolve on this point, and we find that the LTP has adequately described the techniques CY will use for determining surrogate ratios and is adequate to demonstrate that the public health and safety will be protected.

With regard to CAN's request that the record be supplemented with a June 25, 2003, filing by CY to the NRC to the effect that recent Sr-90 and H-3 groundwater contamination data, of 138 and 27,000 pCi/L, respectively, has been detected onsite, this appears to be part of CY's ongoing remediation effort and not evidence of groundwater contamination proposed to be in place at the time of site release. Staff Opposition to CAN's Motion To Supplement at 1,2. We find admitting this information does not add to our evaluation or understanding of the methodology CY plans to employ in releasing the site under the requirements of Subpart E. As indicated above, the surrogate ratio technique can be used only when survey data demonstrate that the necessary consistency of the ETD and the HTD radionuclides is present. We see no advantage in our evaluation of the LTP to burden CY

with having to upgrade the record with information that is only evidence of the Licensee's rate of progress toward final release.

B. Contention 6.1

With regard to Contention 6.1, notwithstanding a lack of complete clarity on the ''average member of the critical group'' and ''Reference Man'' concepts, *see, e.g.,* McKenney/Thaggard Rebuttal at 5, CY Panel Direct at 20, *cf.* LBP-01-25, as well as on the appropriate ICRP and NRC guidance documents to use in the context of license termination and decommissioning, *see, e.g.,* McKenney/Thaggard Rebuttal at 5-10, we likewise find the LTP to meet applicable requirements at issue in this proceeding.

Balancing all the evidence presented in this proceeding on this contention, we find the testimony of the CY and Staff witnesses in this proceeding to be, overall, more thorough and persuasive than that of CAN witness Dr. Resnikoff. One exception that we note is that we find that Dr. Foltz understated the growing season in the Haddam area, and that the season is likely more similar to that in Chester, which is closer to Haddam and also near the river. We find, however, that the preponderance of the evidence is that this difference is not significant to a degree to place in question the adequacy of CY's dose modeling calculation methodology to protect the public health and safety, or such that it would cause there to be a ''significant effect on the quality of the environment,'' 10 C.F.R. § 50.82(a)(10), as these requirements are, in practical effect, defined in 10 C.F.R. § 20.1402, regarding radiological criteria for unrestricted use after license termination — namely, that the TEDE to the *average member* of the critical group does not exceed 25 millirem (0.25 mSv) per year.

Nor do we find any other differences in Dr. Resnikoff's calculations to have been shown to have a level of significance that they would warrant a different ruling than we make herein. Section 20.1402 specifically uses the word ''average'' in defining what the NRC views as a dose that protects the public health and safety, and persuasive evidence was presented that the average for a family of two adults and two children aged 5 and 10 years would be very close to that for the ''Reference Man'' utilized by CY. Other evidence, summarized above, provides context illustrating the reasonableness of the 25-mrem per year dose standard set in section 20.1402. *See, e.g.,* discussion of testimony comparing pathways including through milk, *supra* pp. 279-80, and testimony of Dr. Chabot, *supra* p. 285.

Applying the relevant regulatory standards, we conclude that Connecticut Yankee has shown by a preponderance of the evidence in this proceeding that its LTP should be approved under 10 C.F.R. § 50.82(a)(10).

V. ORDER

1. Based on the foregoing discussion, the entire evidentiary record, and the parties' arguments in this proceeding, it is, this 15th day of October 2003, ORDERED that the LTP proposed by Connecticut Yankee be approved, and that this proceeding be terminated.

2. This Memorandum and Order is effective immediately and, in accordance with 10 C.F.R. § 2.760 of the Commission's Rules of Practice, shall become the final action of the Commission forty (40) days from the dates of its issuance, or on November 24, 2003, unless any party petitions the Commission for review in accordance with 10 C.F.R. § 2.786 or the Commission takes review on its own motion.

3. Within fifteen (15) days after service of this Memorandum and Order, any party may seek review by filing a petition for review with the Commission on the grounds specified in 10 C.F.R. § 2.786(b)(4). The filing of a petition for review is mandatory for a party to exhaust its administrative remedies before seeking judicial review. 10 C.F.R. § 2.786(b)(1).

4. Any petition for review shall be no longer than ten (10) pages and shall contain the information set forth at 10 C.F.R. § 2.786(b)(2). Any other party may, within ten (10) days after service of a petition for review, file an answer supporting or opposing Commission review. Any such answer shall be no longer than ten (10) pages and, to the extent appropriate, should concisely address the matters in 10 C.F.R. § 2.786(b)(2). 10 C.F.R. § 2.786(b)(3). A petitioning party shall have no right to reply, except as permitted by the Commission. *Id.*

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD[12]

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

Dr. Peter S. Lam
ADMINISTRATIVE JUDGE

Thomas D. Murphy
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 15, 2003

Additional Statement of Administrative Judge Ann Marshall Young, Dissenting from One Portion of Preceding Decision

Although I join with my colleagues in the previous decision in the main, I differ on one point, regarding whether the Licensee has fulfilled the requirement found in 10 C.F.R. § 50.82(a)(9)(ii)(D) that the LTP include ''[d]etailed plans for the final radiation survey.'' Notwithstanding Connecticut Yankee's ''judgmental'' sampling process, *see, e.g.,* Tr. 1409, 1413-14, 1432-45, 1448, 1454, 1475, 1479, and use of the data quality objective process described by Staff expert Dehmel, Dehmel Direct at 7, 12-13; *see also* Tr. 1438-39, 1510-12, Mr. Dehmel, testifying for the Staff, also stated as follows:

> MS. BASSILAKIS: . . . . Does the company provide detailed final status survey plan[s] for hot particles in the LTP? Yes or no?
>
> MR. DEHMEL: No.

Tr. 1792. Although Staff counsel argued to the effect that this does not mandate a legal conclusion that the requirement of 10 C.F.R. § 50.82(a)(9)(ii)(D) for ''[d]etailed plans for the final radiation survey'' has not been met, *see* Tr. 1792-

[12] Copies of this Memorandum and Order were sent this date by Internet e-mail or facsimile transmission, if available, to all participants or counsel for participants.

93, the plain meaning of ''detailed plan'' as a factual matter — the context in which expert Dehmel presumably responded to the above questions — suggests to the contrary.

To be sure, as also quite effectively articulated by Mr. Dehmel, the NRC Staff will be doing continuing technical evaluation and scrutiny as part of the in-process inspection program before the final survey. Mr. Dehmel in addition described very well the sorts of instrumentation and measurement issues that must be addressed. Dehmel Direct at 9-10. And, as my colleagues observe, certain provisions of MARSSIM bolster requirements of the LTP in this regard in some respects. *See supra* pp. 274, 277; *see also* Dehmel Rebuttal at 12-13, 16; Tr. 1782-91.

The LTP itself is, however, under 10 C.F.R. § 50.82(a)(9)(D), required to have ''[d]etailed plans for the final radiation survey,'' and according to the plain meaning of the words of this requirement, as apparently understood by Staff expert Dehmel in part of his candid and persuasive testimony, the LTP does not have such detailed plans with regard to the methods relating to detection and cleanup of hot particles, nor indeed, as argued by CAN, of hard-to-detect nuclides. Much is left up to future judgment and discretion. This lack of detailed plans appears to me to be significant enough to require more than is currently included in the LTP, given the history of incidents at the Haddam Neck plant involving releases of radiological materials, the purpose of the LTP process ''to ensure that the property will be left in such a condition that nearby residents . . . can frequent the area without endangering their health and safety,'' the requirement that the Licensee demonstrate that the remainder of decommissioning activities ''will not be inimical . . . to the health and safety of the public, and will not have a significant effect on the quality of the environment,'' and finally, given that this proceeding is the petitioners' ''one and only chance to litigate whether the survey methodology is adequate to demonstrate that the site [will ultimately be] brought to a condition suitable for license termination.'' *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 206-08 (1998).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
Dr. Charles N. Kelber
Lester S. Rubenstein

In the Matter of **Docket Nos. 50-369-LR**
50-370-LR
50-413-LR
50-414-LR
(ASLBP No. 02-794-01-LR)

DUKE ENERGY CORPORATION
(McGuire Nuclear Station, Units 1 and 2;
Catawba Nuclear Station, Units 1
and 2) **October 16, 2003**

In this license renewal proceeding under 10 C.F.R. Part 54, the Licensing Board denies the Request of Intervenors Nuclear Information and Resource Service (NIRS) and Blue Ridge Environmental Defense League (BREDL) to Reinstate Contention 1, regarding the environmental impacts of possible mixed oxide (MOX) fuel use in the McGuire and Catawba plants, and, because there are no other contentions pending, terminates the proceeding.

RULES OF PRACTICE: CONTENTIONS, ADMISSIBILITY

Under the authority of the Commission's ruling in CLI-02-14, 55 NRC 278, 295 (2002), that ''to bring NEPA into play, a possible future action must at least constitute a 'proposal' pending before the agency (i.e., ripeness) and must be in some way interrelated with the action that the agency is actively considering (i.e.,

nexus),'' the Licensing Board finds no current proposal to use mixed oxide (MOX) fuel during the license renewal period and thus no ''ripeness'' or ''nexus,'' and denies Intervenors' request to reinstate a contention relating to environmental impacts of possible MOX fuel use in the McGuire and Catawba plants.

TECHNICAL ISSUE DISCUSSED

The following technical issue is discussed: Use of plutonium/mixed oxide (MOX) fuel in reactors.

MEMORANDUM AND ORDER
(Ruling on Intervenors' Request for Reinstatement of Contention 1)

This proceeding concerns the license renewal application (LRA) of Duke Energy Corporation (Duke), seeking approval under 10 C.F.R. Part 54 to renew the operating licenses for its McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2. In this Memorandum and Order, the Licensing Board rules on Blue Ridge Environmental Defense League's [BREDL's] and Nuclear Information and Resource Service's [NIRS's] Request for Reinstatement of NIRS Contention 1 Regarding Environmental Impacts of MOX Fuel Use (April 11, 2003) [hereinafter Intervenors' Request]. For the reasons set forth below, we conclude that we must deny the Intervenors' request. Because no other contentions are pending, we terminate this proceeding.

I. BACKGROUND

In its June 13, 2001, application, Duke seeks to renew the licenses for its McGuire Nuclear Station, Units 1 and 2, located some 17 miles north-northwest of Charlotte, North Carolina, for additional 20-year periods commencing in 2021 and 2023, respectively, and to renew the licenses for its Catawba Nuclear Station, Units 1 and 2, located in South Carolina some 18 miles southwest of Charlotte, North Carolina, for additional 20-year periods commencing in 2024 and 2026, respectively. By Memorandum and Order dated January 24, 2002, LBP-02-4, the Board admitted two contentions submitted by the Intervenors, one relating to severe accident mitigation alternatives (SAMAs) and station blackout risks in plants with ice condenser containments, and one relating to the anticipated use of plutonium mixed oxide (MOX) fuel in the Duke plants. Memorandum and Order (Ruling on Standing and Contentions), LBP-02-4, 55 NRC 49, 88-107, 118-30 (2002). After admission of the SAMA-related contention was affirmed in part and

reversed in part in July 2002, *see* CLI-02-17, 56 NRC 1 (2002), as subsequently clarified in CLI-02-28, 56 NRC 373 (2002), the Licensing Board ruled the original SAMA contention to be moot, and, on October 2, 2003, denied admission of the Intervenors' Amended Contention 2, also relating to SAMAs, Order (Ruling on Duke Motion to Dismiss, Setting Briefing Deadlines, and Scheduling Oral Argument on Amended Contention 2) (Feb. 4, 2003); LBP-03-17, 58 NRC 221 (2003).

The contention having to do with the anticipated use of MOX fuel, designated Contention 1 in LBP-02-4, as originally admitted by us, read as follows:

> Anticipated MOX fuel use in the Duke plants will have a significant impact on aging and environmental license renewal issues during the extended period of operations in the Duke plants, through mechanisms including changes in the fission neutron spectrum and the abundances of fission products, and must therefore be considered in the license renewal application and addressed in the Supplemental EIS.

LBP-02-4, 55 NRC at 107. Our admission of this contention was reversed by the Commission in CLI-02-14, 55 NRC 278 (2002).

The Intervenors now bring their Request for Reinstatement of the contention, based on Duke's February 2003 license amendment application (LAA) seeking approval ''to use MOX lead test assemblies in the Catawba or McGuire reactor, various statements by Duke that clarify its intention to proceed with the use of MOX fuel in the . . . reactors, and statements by the U.S. Department of Energy ('DOE') to the effect that (a) international plutonium disposition agreements depend on the use of MOX fuel in U.S. reactors, and (b) the amount of surplus plutonium committed to the MOX program has doubled.'' Intervenors' Request at 2.

II. ANALYSIS

A. Intervenors' Arguments

Intervenors do not seek reinstatement of the safety-related aspects of Contention 1, *id.* at 4 n.2, but do contend that the environmental claims of the contention should be reinstated, *id.* at 4. Citing the Commission's statement in CLI-02-14 that ''[t]o bring NEPA [the National Environmental Policy Act] into play, a possible future action must at least constitute a 'proposal' pending before the agency (i.e., ripeness), and must be in some way interrelated with the action that the agency is actively considering (i.e., nexus),'' *id.* at 3 (*citing* 55 NRC at 295), Intervenors contend that their request should be granted because the new events they describe ''now demonstrate that the issues raised by NIRS Contention are ripe for consideration, and that a nexus between license renewal and MOX

use is sufficiently established to warrant consideration of the contention,'' *id.* at 1-2.

Noting that Duke's LAA proposal is for the use of ''only four MOX fuel lead assemblies,'' Intervenors assert that this nonetheless ''constitutes the first concrete step toward full use of MOX fuel in the reactors,'' quoting, in support of this argument, from a February 27, 2003, Duke press release, as follows:

> ''We plan to use four MOX fuel assemblies (out of 193 total fuel assemblies) in one of the McGuire or Catawba nuclear reactors beginning in 2005. This process is designed to confirm the acceptable fuel performance we have already seen in European reactors, and allow us to request regulatory approval for larger-scale use of MOX fuel beginning around 2008,'' said Steve Nesbit, MOX fuel project manager.

Id. at 5 (*citing* Exhibit 1 to Intervenors' Request; and the following internet address:

http:www.dukepower.com/content/news/article/2003/feb/2003022703.html [hereinafter Duke 2/27/03 Press Release]).

In addition, Intervenors rely on a DOE announcement ''that it had decided to drop immobilization as a strategy for disposing of 17 tons of surplus weapons-grade plutonium'' and DOE's statement that its ''current disposition strategy involves a MOX-only approach . . . [to] dispose of up to 34 t of surplus plutonium,'' implementation of which is ''key to the successful completion'' of a U.S.-Russian agreement for disposition of surplus weapons-grade plutonium. *Id.* at 5-6 (*citing* Surplus Plutonium Disposition Program; Department of Energy, National Nuclear Security Administration: Amended Record of Decision, 67 Fed. Reg. 19,432 (Apr. 19, 2002).

Quoting statements from Duke's LAA and February 27, 2003, Press Release referring to the U.S.-Russian agreement,[1] Intervenors argue that ''[b]ecause Catawba and McGuire are the only plants that have been designated for MOX use, it is implicit that the participation of these reactors in the MOX program is

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[1] Intervenors provide the following Duke statements from, respectively, Duke's LAA and 2/27/03 Press Release:

> This license amendment request is being made as part of the ongoing United States-Russian Federation plutonium disposition program. The goal of this nuclear nonproliferation program is to dispose of surplus plutonium from nuclear weapons by converting the material into MOX fuel and using that fuel in nuclear reactors.
>
> MOX fuel is a mature technology in Europe where 35 reactors currently use the fuel to generate electricity. Applying the technology in the United States is a key element of the international program to dispose of surplus plutonium from nuclear weapons, and thereby reduce the risk of terrorist groups or rogue nations obtaining the material.

Intervenors Request at 7 & n.6 (emphasis omitted).

considered 'key' to the successful completion of the U.S.-Russian agreement.'' *Id.* at 7. Thus, they maintain:

> License renewal and MOX use therefore are inextricably interrelated, because use of MOX fuel in the Catawba and McGuire plants, for an extended time into the future, is the only available avenue for disposal of the 34 tons of MOX that is to be produced under the U.S.-Russian agreement. If the Catawba and McGuire licenses are renewed without provision for use of MOX fuel, then the overall governmental policy of disposing of surplus weapons-grade plutonium will not be fulfilled. Thus, the renewal of the Catawba and McGuire licenses is inextricably tied to the MOX program.

Id. at 7-8. In a footnote, Intervenors state that ''the goal of disposing of 34 tons of plutonium by using it in reactors could not be fulfilled by using MOX during the remaining terms of the Catawba and McGuire licenses. . . .'' *Id.* at 8 n.7.

Intervenors argue in addition that a balancing of the criteria in 10 C.F.R. § 2.714(a)(1)(i)-(v) for consideration of late-filed contentions weighs in favor of admitting Contention 1 at this point, stating that they filed their request within 30 days of March 18, 2003, when Duke's LAA became publicly available; that they have no other ''means for protecting their interest in ensuring that the Supplemental EIS for the Catawba and McGuire nuclear plants provides a thorough discussion of reasonably foreseeable environmental impacts''; that there is no other party to represent their interests; that through the testimony of Dr. Edwin Lyman they may reasonably be expected to assist in the development of a sound record; and that any broadening or delay is ''not due to any lack of diligence on the Intervenors' part.'' *Id.* at 8-9.

B. Duke Response

Duke argues that Intervenors' Request is without merit, because as a procedural matter it should have been brought as a motion for reconsideration of CLI-02-14, directed to the Commission, and because, substantively, the issue of possible future MOX fuel use at McGuire or Catawba is ''still beyond the limited scope of this license renewal proceeding,'' as there is ''still no 'nexus' between present and future MOX fuel amendment requests and the license renewal application,'' nor are environmental issues relating to ''possible long-term use of MOX fuel at Duke nuclear plants now 'ripe' for review in this renewal proceeding under the standard articulated by the Commssion and the courts.'' Response of Duke Energy Corporation to Intervenors' Request for Reinstatement of the Environmental Aspects of the Previously Dismissed Contention 1 Concerning Mixed Oxide Fuel (April 21, 2003), at 2; *see id.* at 7-19.

Duke points out that ''[t]o use significant, or 'batch,' quantities of MOX fuel at one of its reactors, Duke would eventually be required to submit another amendment request seeking the appropriate authority,'' and that any batch utilization of MOX fuel at Duke facilities is ''currently not anticipated to commence before 2008.'' *Id.* at 5. According to Duke, based on information in its February 4, 2002, ''Memorandum of Law in Support of Appeal of Duke Energy Corporation from Atomic Safety and Licensing Board Memorandum and Order LBP-02-04 (Ruling on Standing and Contentions) [hereinafter Duke Appeal Brief],'' it was ''well-understood that an amendment request for MOX fuel lead assemblies would precede an amendment request for batch use, and that the lead assembly request would be filed in the near future,'' at the time the Commission issued CLI-02-14. *Id.* at 5 (*citing* Duke Appeal Brief at 4-6). And further, Duke states, the lead assemblies ''will be utilized entirely within the initial 40-year license terms for either McGuire or Catawba.'' *Id.* at 6.

Notwithstanding Duke's arguments concerning the proper forum for the Intervenors' Request, it also ''requests that Intervenors' claim be addressed in the manner and in the forum most likely to facilitate its quick resolution. . . .'' *Id.* at 7 n.14. Finally, Duke argues that the Intervenors have not provided any ''material new information that would support a timely 'late-filed contention,' '' or otherwise shown its admissibility as such. *Id.* at 9-11.

C. Staff Response

The NRC Staff argues that, to the extent the Intervenors' Request can be interpreted as a late-filed contention, it fails to satisfy the late-filing criteria of 10 C.F.R. § 2.714(a)(1)(i)-(v), (b)(1), primarily because ''there are other means whereby the petitioners' interest will be protected,'' referring to the possibility of a future license amendment request for the full-scale use of MOX at Catawba and McGuire. NRC Staff's Response to Intervenors' Request for Reinstatement of NIRS's Contention Regarding Environmental Impacts of Mixed Oxide Fuel Use (Apr. 21, 2003), at 4 [hereinafter Staff Response]. The Staff also asserts that, under the Commission's ruling in CLI-02-14, MOX is beyond the scope of this proceeding, and that no new information has been provided to satisfy the ''ripeness'' and ''nexus'' tests discussed in CLI-02-14, wherein the Commission referred to uncertainties including ''actions by the U.S. Department of Energy, including the consummation of certain international agreements, the outcome of the current licensing proceeding for the proposed MOX fuel fabrication facility in South Carolina, and plutonium disposition activities in Russia.'' *Id.* at 3, 5-8.

III. BOARD RULING

In reversing the Licensing Board's admission of Contention 1, the Commission (1) found the contention inadmissible under the ''AEA-based license renewal regulations,'' CLI-02-14, 55 NRC at 292-94; in addition, (2) stated that it considered ''Duke's potential filing of a MOX application'' to be ''simply too inchoate to rise to the level of a 'proposal' within the meaning of *Kleppe* [*v. Sierra Club*] and its progeny,'' and consequently concluded that ''the possible MOX application fails the 'ripeness' test,'' *id.* at 296 (citing *Kleppe v. Sierra Club,* 427 U.S. 390, 406 (1976)); and, finally, (3) stated that it saw ''no 'interdependence' *at all* between Duke's license renewal application and any potential fuel-related amendment application,'' and concluded that the ''nexus test'' under NEPA was not satisfied, *id.* at 297 (emphasis in original).

In reaching its conclusion with regard to ''nexus,'' the Commission noted:

> License renewal obviously can go forward without reference to the MOX issue. The Catawba and McGuire plants could operate throughout their current licensing term plus an additional 20-year renewal term (if license renewal is approved) without using MOX fuel, just as they have to date. Likewise, assuming Commission authorization, the plants could use MOX fuel during the remainder of their current operating licenses regardless of whether Duke had sought any license renewals. License renewal and MOX use are, in short, separate questions.

Id. (footnote omitted).

The Commission in reaching its ruling stated that ''to bring NEPA into play, a possible future action must at least constitute a 'proposal' pending before the agency (i.e., ripeness) and must be in some way interrelated with the action that the agency is actively considering (i.e., nexus).'' *Id.* at 295 (footnote omitted).

We note Intervenors' argument that ''the goal of disposing of 34 tons of plutonium by using it in reactors could not be fulfilled by using MOX during the remaining terms of the Catawba and McGuire licenses,'' and that as a result, ''[i]f the Catawba and McGuire licenses are renewed without provision for use of MOX fuel, then the overall governmental policy of disposing of surplus weapons-grade plutonium will not be fulfilled.'' Intervenor's Request at 7, 8 & n.7. It is not certain, however, what will happen with regard to the DOE proposal, as noted by the Commission in CLI-02-14. *See* 55 NRC at 296. And use of MOX lead test assemblies in any Duke plant does not necessarily mean that MOX will be used in any Duke plant thereafter on a full-scale basis, as argued by the Staff. Staff Response at 6-8.

Under the authority of CLI-02-14, we find no current proposal to use the MOX fuel during the renewal period and thus no ''ripeness'' or ''nexus,'' as required therein. Therefore, the Intervenors' request must be denied. We note, however,

as stated by the Commission, ''NIRS and BREDL are of course free to raise MOX-related safety and environmental issues (including the question whether the use of MOX fuel will aggravate any aging effects) when and if Duke submits a license amendment application seeking permission to possess and use MOX fuel.'' CLI-02-14, 55 NRC at 297.

IV. ORDER

1. Based on the foregoing discussion, the Intervenors' Request for Reinstatement of NIRS Contention 1 Regarding Environmental Impacts of MOX Fuel Use is *denied.* Because this is the only remaining contention awaiting our ruling, this proceeding must now be and is hereby *terminated.*

2. This Memorandum and Order is effective immediately and, in accordance with 10 C.F.R. § 2.760 of the Commission's Rules of Practice, shall become the final action of the Commission forty (40) days from the dates of its issuance, or on November 25, 2003, unless a party petitions the Commission for review in accordance with 10 C.F.R. § 2.786 or the Commission takes review on its own motion.

3. Within fifteen (15) days after service of this Memorandum and Order, any party may seek review by filing a petition for review with the Commission on the grounds specified in 10 C.F.R. § 2.786(b)(4). The filing of a petition for review is mandatory for a party to exhaust its administrative remedies before seeking judicial review. 10 C.F.R. § 2.786(b)(1).

4. Any petition for review shall be no longer than ten (10) pages and shall contain the information set forth at 10 C.F.R. § 2.786(b)(2). Any other party may, within ten (10) days after service of a petition for review, file an answer supporting or opposing Commission review. Any such answer shall be no longer than ten (10) pages and, to the extent appropriate, should concisely address the matters in 10 C.F.R. § 2.786(b)(2). 10 C.F.R. § 2.786(b)(3). A petitioning party shall have no right to reply, except as permitted by the Commission. *Id.*

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

Dr. Charles N. Kelber
ADMINISTRATIVE JUDGE

Lester S. Rubenstein
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 16, 2003[2]

[2] Copies of this Memorandum and Order were sent this date by Internet e-mail or facsimile transmission, if available, to all participants or counsel for participants.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael C. Farrar, Presiding Officer
Dr. Charles N. Kelber, Special Assistant

In the Matter of **Docket No. 30-36239-ML**
(ASLBP No. 03-814-01-ML)
(Materials License)

CFC LOGISTICS, INC. **October 29, 2003**

RULES OF PRACTICE: SERVICE

A request for hearing must be properly served by personal delivery or by mail both to the Applicant and to the Staff (by delivery to the General Counsel at NRC headquarters). *See* 10 C.F.R. § 2.1205(f). Because the Licensee did not attempt to show that it had been materially prejudiced in some manner by the Petitioners' failure to comply with the service rules of 10 C.F.R. § 2.1205(f), the Licensing Board declined to reject Petitioners' hearing request on this technical ground rather than consider its substance, particularly in light of the informal nature of Subpart L proceedings. *See Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 649 (1979).

RULES OF PRACTICE: STANDING

In ruling on a Subpart L request for hearing, a presiding officer is required by 10 C.F.R. § 2.1205(h) to determine whether a petitioner meets the judicial standards for standing and to consider, among other factors: (1) the nature of the petitioner's right under the Atomic Energy Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's interest in the proceeding;

and (3) the possible effect of any order that may be entered in the proceeding upon the petitioner's interest.

Under Commission case law applying judicial concepts of standing, to establish the requisite interest to intervene in a proceeding, a petitioner ''must allege a concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a favorable decision.'' *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995). While the petitioner bears the burden of demonstrating standing, the petition or hearing request is to be construed in the petitioner's favor. *See id.*

RULES OF PRACTICE: STANDING (PRESUMPTION BASED ON GEOGRAPHICAL PROXIMITY)

Because the Commission has held that proximity alone is not sufficient to establish standing in materials licensing cases, *see International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 117 n.1 (1998), a presumption of standing based on geographical proximity may be applied in these proceedings only when the activity at issue involves a ''significant source of radioactivity producing an obvious potential for offsite consequences.'' *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994).

RULES OF PRACTICE: STANDING (PRESUMPTION BASED ON GEOGRAPHICAL PROXIMITY)

In materials licensing proceedings, if petitioners wish to base their standing on the geographical proximity of their homes to the facility, they are not required to prove causation or traceability as they must under the judicial standards of standing, *see Virginia Electric and Power Co.* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 56 (1979); but they must nonetheless demonstrate that the radioactive source at issue presents an obvious potential for offsite consequences. *Sequoyah Fuels,* CLI-94-12, 40 NRC at 75 n.22.

RULES OF PRACTICE: STANDING (PRESUMPTION BASED ON GEOGRAPHICAL PROXIMITY)

Applying the reasoning of the Commission in *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111 (1995), and of the Appeal Board in *Armed Forces Radiobiology Research Institute* (Cobalt-60 Storage Facility), ALAB-682, 16 NRC 150 (1982), the Licensing

Board found that petitioners residing approximately one-third of a mile from a facility licensed to possess up to 1 million curies of cobalt-60 could avail themselves of the proximity presumption to establish their standing to intervene.

RULES OF PRACTICE: AREAS OF CONCERN (GERMANENESS)

For Subpart L proceedings, all that is required of the petitioners is to demonstrate that an ''area of concern'' is ''germane.'' *See* 10 C.F.R. § 2.1205(h). NRC jurisprudence makes it clear that what is in issue under the threshold germaneness obligation is not whether petitioners have put forward comprehensive pleading of, or demonstrated extrinsic support for, their areas of concern; rather, the issue is only whether they have pointed to relevant areas specifically enough to be permitted to move forward toward a written presentation of their supporting evidence. *See, e.g., International Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-02-6, 55 NRC 147, 151-52 (2002), *aff'd by* CLI-02-10, 55 NRC 251, 252, 257 (2002); *U.S. Army* (Jefferson Proving Ground Site), LBP-03-2, 57 NRC 39, 42 (2003); *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 16-17 (2001).

RULES OF PRACTICE: SETTLEMENT

Commission policy strongly favors settlement of adjudicatory proceedings. *See* 10 C.F.R. § 2.759; *Rockwell International Corp.* (Rocketdyne Division), CLI-90-5, 31 NRC 337, 340 (1990); Policy Statement on Alternative Means of Dispute Resolution (57 Fed. Reg. 36,678 (Aug. 14, 1992)).

MEMORANDUM AND ORDER
(Ruling on Petitioners' Request for an Evidentiary Hearing)

SUMMARY

We have before us the petition of some twenty-five individual residents of Quakertown, Pennsylvania (the Petitioners), for a hearing that would give them the opportunity to present evidence challenging the application of CFC Logistics, Inc. (the Company), for an NRC license to operate a cobalt-60 irradiator at the Company's food processing warehouse in Quakertown. For the reasons stated below, we find that (1) the Petitioners' hearing request was timely filed, notwithstanding the irregularity of its original service on the Company; (2) at least some of the Petitioners have established their standing to seek relief here;

and (3) a number of the Petitioners' proffered ''areas of concern'' are germane to this proceeding. As a result, we GRANT the Petitioners' hearing request.

BACKGROUND

We previously had occasion to recount much of the background that led to this point. Specifically, after the petition was filed, the NRC Staff completed its review of the application and, on August 27, as NRC rules permit it to do in Subpart L (informal) proceedings, issued the Company the license it sought, subject to the outcome of this proceeding.[1] That led to our issuing a September 23 Memorandum and Order denying the Petitioners' motion for an interim stay of the effectiveness of that license, in which we necessarily covered much of the background relevant here. *See* LBP-03-16, 58 NRC 136, 138-40 (2003). Accordingly, we need summarize only briefly here the steps that have led to this point.

On February 25, 2003, the Company filed an application for an NRC materials license to operate at its Quakertown cold storage facility a self-contained, underwater cobalt-60 irradiator to irradiate food products and other materials. Following the Petitioners' filing of a hearing request on June 23, a number of somewhat diffuse filings were made by both the Petitioners and the Company.

In an effort to bring more focus to the proceeding, we held a telephonic prehearing conference on August 7. During that conference call, we directed the Petitioners to file additional documents indicating the actual distances of each Petitioner's residence from the facility and briefly restating the ''areas of concern'' they sought to raise. *See* Aug. 7 Tr. at 42-45.[2]

During that same conference, we instructed the NRC Staff — which up to that point had elected not to submit any papers to us — to respond to the Petitioners' upcoming filing by briefing the questions of the Petitioners' standing and the germaneness of their areas of concern. *See* Aug. 7 Tr. at 74-75; Aug. 13 Order at 2. The other litigants were then to respond to the Staff's position.

As we moved forward on the adjudicatory front, the NRC Staff continued its efforts on the regulatory front, eventually disclosing at an August 21 public meeting in Quakertown that it intended to issue the CFC license within the next

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[1] *See* 10 C.F.R. §§ 2.1205(m), 2.1263. In that regard, this tribunal, while part of the NRC, exercises a judicial function that operates independently of the NRC Staff's regulatory function.

[2] The numbering of both the August 7 and August 26 Transcripts began with page 1; thereafter, page numbering of new transcripts took up where the previous one had ended. *See also* Prehearing Order (Scheduling Additional Filings and Possible Oral Argument) (Aug. 13, 2003) at 1-2.

few days. In response to that announcement, Petitioners filed the following day a motion to stay the issuance of the license.

In an August 27 Order memorializing determinations made during a conference call held the previous day, we denied the Petitioners' stay request as premature, without prejudice to its later renewal after the issuance of the license. *See* Further Scheduling Order (Aug. 27, 2003) at 1. As anticipated, the Staff issued CFC its license on August 27, prompting the Petitioners, on September 4, to renew their stay motion.

At an oral argument held during the evening of September 10 in the Historic Lehigh County Courthouse in Allentown, Pennsylvania, we heard argument from counsel on three issues: whether Petitioners have standing to challenge the application/license; whether their ''areas of concern'' are germane to matters we have authority to consider; and whether they were entitled to a stay of the effectiveness of the license. As indicated above, we denied Petitioners' stay motion in our September 23 Memorandum and Order, without prejudice to its renewal as to future shipments of cobalt-60 if circumstances change or (if their request for hearing were granted) when they file their written evidentiary presentation. *See* LBP-03-16, above, 58 NRC at 137-38.

The issues debated at the oral argument were tied closely to governing NRC regulations, which call upon us to determine, in considering Petitioners' request for hearing, whether (1) their petition was timely filed and properly served; (2) they have standing; and (3) their specified areas of concern are germane. *See* 10 C.F.R. § 2.1205(d)(2), (f), and (h). In Parts I (pp. 315-17), II (pp. 317-23), and III (pp. 323-34) of this opinion, below, we address whether the Petitioners have satisfied each of these required elements. Determining that they have, we go on to set out in Part IV (pp. 334-36) a plan for the future course of this proceeding.

I. TIMELINESS AND SERVICE OF REQUEST FOR HEARING

In a materials license proceeding, petitioners requesting a hearing on a pending application must abide by the filing and service requirements set out in 10 C.F.R. § 2.1205. Under section 2.1205(d)(2), if — as occurred in the instant proceeding — the NRC Staff elects not to publish in the *Federal Register* at the outset a formal notice of opportunity for a hearing, a request for hearing must be filed within the earliest of the following periods: (1) 30 days after the requester receives actual notice of a pending application; (2) 30 days after the requester receives actual notice of an agency action granting an application in whole or in part; or (3) 180 days after the agency action granting an application in whole or in part.

As we noted above, Petitioners filed their request for hearing on June 23, 2003 (but, as we note below, did not serve it on the Company until July 15). According to the request, two of the twenty-five named petitioners had become aware of

the pending application on May 23, 2003, while the remaining twenty-three petitioners learned of it later, on or before June 19.[3] In challenging the timeliness of a document Petitioners filed on July 17 that the Company calls Petitioners' ''second hearing request,'' the Company argues that given the number of public meetings held and the amount of media coverage regarding the planned irradiator, it is reasonable to assume that Petitioners received actual notice of the pending license application at some point before June 19, 2003.[4] Consequently, the Company asserts, the Petitioners' ''second hearing request'' should have been filed ''well before July 19, 2003'' and should therefore be rejected as untimely. CFC Response to Petitioners' Reply at 13.

The Company's argument is misdirected. Because the Petitioners' July 17 filing was not a second hearing request, but rather a reply to the Company's July 10 response (*see* note 4, above), the only hearing request before us is the one filed by Petitioners on June 23 (which it admittedly served initially only on the Staff, serving the Company late, on July 15). Petitioners represent that they each received actual notice of the CFC application between May 23 and June 19. For its part, the Company has failed to proffer any evidence demonstrating that Petitioners received actual notice prior to May 23, 2003, which would put their hearing request outside the prescribed 30-day period. Accordingly, on the record currently before us, the Petitioners' request for hearing was timely filed on June 23 (June 22 fell on Sunday).[5]

In addition to requiring timely filing, NRC regulations dictate that a request for hearing must be properly served by personal delivery or by mail both to the Applicant and to the Staff (by delivery to the General Counsel at NRC headquarters). *See* 10 C.F.R. § 2.1205(f). Relying on advice assertedly given by counsel for the NRC Staff's Region I office, Petitioners filed their June 23 request for hearing not only with the NRC General Counsel but also with the Region I

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[3] *See* Letter from Robert J. Sugarman, Counsel for Petitioners, to John Kinneman, NRC Region I Nuclear Materials Safety Branch 2 Chief (June 23, 2003) at 1-2 [hereinafter Hearing Request]; and Exh. C to Reply of Requestors to CFC Logistics, Inc. Response Regarding the Application for a Materials License (July 17, 2003) [hereinafter Petitioners' Reply to CFC Response].

[4] *See* Response of CFC Logistics, Inc. to Petitioners' Second Request for a Hearing Regarding the Application for a Materials License (Docket No. 30-36239-ML) (July 28, 2003) at 10-12 [hereinafter CFC Response to Petitioners' Reply]. Although the Company repeatedly refers to the Petitioners' July 17 filing as ''Petitioners' Second Hearing Request,'' what the Petitioners actually submitted on that date was a reply to the Company's July 10 response to their June 23 hearing request.

[5] We note that, in promulgating the Subpart L procedural rules, the Commission expressly rejected the suggestion that the *actual notice* requirement be changed to one turning on whether the petitioner *knew or should have known* of the pending application based on factors such as newspaper accounts. *See* Final Rule, ''Informal Hearing Procedures for Materials Licensing Adjudications,'' 54 Fed. Reg. 8269, 8272 (Feb. 28, 1989).

Nuclear Materials Safety Branch 2 Chief.[6] Failing to observe all the tenets of section 2.1205(f), however, Petitioners did not at that juncture serve a copy of their request on the Company.

It was not until a week later, on June 30, that CFC was notified of the hearing request by the NRC's Region I office. Thereafter, on July 10, the Company filed its answer to the Petitioners' hearing request, noting the absence of direct service upon it. Subsequently, on July 15, Petitioners filed a ''Contingent Motion for Waiver of Section 2.1205(f)'' and themselves served CFC with their June 23 hearing request.

Notwithstanding the Company's concern that overlooking Petitioners' failure to comply with applicable service requirements may encourage litigants in future NRC proceedings to attempt to circumvent procedural rules,[7] we are not inclined to reject Petitioners' hearing request on this technical ground rather than consider its substance, particularly in light of the informal nature of Subpart L proceedings like this one.[8] We would have considered reaching a different result had the Company shown that it was materially prejudiced in some manner by not receiving service of the request on June 23. Perhaps not surprisingly, no such showing has been attempted, much less made.

Having declined to deny the Petitioners' hearing request on procedural grounds, we now consider the substance of that request. This involves us in the issues of Petitioners' standing and the germaneness of their areas of concern.

II. STANDING OF PETITIONERS TO SEEK HEARING

In ruling on a Subpart L request for hearing, a presiding officer is required by section 2.1205(h) to determine whether a petitioner meets the judicial standards for standing and to consider, among other factors: (1) the nature of the petitioner's right under the Atomic Energy Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's interest in the proceeding; and (3) the possible effect of any order that may be entered in the proceeding upon the petitioner's interest. Under Commission case law applying judicial concepts of standing, to establish the requisite interest to intervene in a proceeding, a petitioner ''must

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[6] *See* Petitioners' Reply to CFC Response at 8.

[7] *See* Response of CFC Logistics, Inc. to Petitioners' Request for a Hearing Regarding the Application for a Materials License (Docket No. 03036239) (July 10, 2003) at 8 [hereinafter CFC Response to Hearing Request].

[8] *See also Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 649 (1979) (declining in a Subpart G proceeding to reject intervention petition that was arguably filed late because ''[i]t is neither Congressional nor Commission policy to exclude parties because the niceties of pleading were imperfectly observed. Sounder practice is to decide issues on their merits, not to avoid them on technicalities.'').

allege a concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a favorable decision.'' *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995). And while the petitioner bears the burden of demonstrating standing, the petition or hearing request is to be construed in the petitioner's favor. *See id.*

Under NRC jurisprudence, a petitioner may be presumed in some instances to have fulfilled the judicial standards of standing based on the petitioner's geographical proximity to a facility or source of radioactivity. *See Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994). The Commission has held that in materials licensing cases (in contrast to reactor licensing proceedings), proximity *alone* is not sufficient to establish standing. *See International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 117 n.1 (1998).

Rather, a presumption of standing based on geographical proximity may be applied in materials cases only when the activity at issue involves a ''*significant source of radioactivity producing an obvious potential for offsite consequences.*'' *Sequoyah Fuels,* CLI-94-12, 40 NRC at 75 n.22 (citing *Armed Forces Radiobiology Research Institute* (Cobalt-60 Storage Facility), ALAB-682, 16 NRC 150, 153-54 (1982); and *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-90-3, 31 NRC 40, 45 (1990) (emphasis added)). How close a petitioner must live to the source for this ''proximity plus'' presumption to come into play ''depends on the danger posed by the source at issue.'' 40 NRC at 75 n.22.

In the matter before us, each of the twenty-five named petitioners resides in Quakertown, with the individuals closest to the CFC facility living approximately one-third of a mile (1700 feet) away and the farthest living approximately 3 miles (16,100 feet) away.[9] Relying on the Appeal Board's *Armed Forces* ruling, Petitioners contend they have standing *per se* because they live in close enough proximity to the facility to have their health, safety, and property threatened. *See* Petitioners' Reply to CFC Response at 10-13 (citing *Armed Forces Radiobiology Research Institute* (Cobalt-60 Storage Facility), ALAB-682, 16 NRC 150 (1982)).

For the Company's part, its written responses prior to the oral argument opposed the standing of all twenty-five Petitioners. *See* CFC Response to Hearing Request at 9-15; CFC Response to Petitioners' Reply at 13-27. In contesting Petitioners' claim to have standing *per se,* CFC maintains that *Armed Forces* is not controlling here in light of subsequent rulemaking proceedings and Commission decisions holding that proximity alone is not sufficient to demonstrate standing in materials licensing cases. *See* CFC Response to Petitioners' Reply at 16-17.

[9] *See* Location of Residents Signing Affidavits and accompanying Table and affidavits (Aug. 14, 2003). The Company has not challenged any of the distances provided by Petitioners.

Thus, while the Company concedes that the 1 million curies it would possess under the license is a ''significant source of radioactivity,'' *see* Tr. at 145, it asserts that Petitioners cannot avail themselves of what we call the ''proximity-plus presumption'' because they failed to allege a viable potential pathway for a release of radiation from the cobalt-60 sealed source. *See* CFC Response to Petitioners' Reply at 18.[10]

Given the import to materials licensing cases of the language in the Commission's *Sequoyah Fuels* decision establishing the governing test, i.e., a ''significant source of radioactivity producing an obvious potential for offsite consequences,'' we asked the Staff on two occasions to address the meaning and applicability of that test in the context of this proceeding. In its initial brief, the Staff supported Petitioners' standing based on the traditional judicial standards of standing, i.e., injury-in-fact, traceability, and redressability.[11]

It was unclear from its subsequent filing addressing the *Sequoyah Fuels* test, however, whether the Staff supported Petitioners' standing based on the proximity-plus presumption. In that September 3 response, the Staff asserted that while the amount of cobalt-60 authorized for use at the CFC irradiation facility — up to 1 million curies — represented a significant source of radioactivity, there was no obvious potential for offsite consequences because of the passive nature of the facility's protective systems.[12] At the oral argument, the Staff initially supported Petitioners' claim of standing based on both theories, *see* Tr. at 127, but then later appeared to take a position of supporting standing based only on the proximity theory, *compare* Tr. at 139.

In any event, it is acknowledged by all litigants that the cobalt-60 inventory the Company has been authorized to use at its facility is a ''significant source of radioactivity'' for purposes of the Commission's *Sequoyah Fuels* test. Accordingly, it appears the central issue to be resolved is whether that source produces an ''obvious potential for offsite consequences.''

At the outset, we point out an important distinction between what Petitioners must show to avail themselves of the proximity-plus presumption in materials cases and what they must show under the judicial standards of standing. If Petitioners wish to base their standing on their geographical proximity to the

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[10] At the September 10 oral argument, however, the Company conceded that Petitioners may have standing to raise security concerns related to terrorist activities. *See* Tr. at 172.

[11] *See* NRC Staff Brief on Standing and Areas of Concern (Aug. 27, 2003) [hereinafter Staff Brief] at 3-4.

[12] *See* NRC Staff Answer to Presiding Officer's Question on Whether Facility Constitutes a Significant Source with Obvious Potential for Off-site Consequences (Sept. 3, 2003) at 1-3.

facility, they are not required to prove causation or traceability;[13] but they must nonetheless demonstrate that the CFC cobalt-60 inventory presents an obvious potential for offsite consequences. On this point, we find the Commission's *Georgia Tech* decision particularly instructive.

Although *Georgia Tech* involved an application for a renewal license of a research reactor rather than an application for a materials license for an irradiator, the Commission applied the *Sequoyah Fuels* test for materials licensing proceedings to the nonpower reactor before it. *See Georgia Tech,* CLI-95-12, 42 NRC at 116. In upholding the Licensing Board's grant of standing to the petitioner, the Commission in that case declined to disturb the Board's finding that it was ''neither 'extravagant' nor 'a stretch of the imagination' to presume that some injury, 'which wouldn't have to be very great,' could occur within $^1/_2$ mile of the research reactor.'' *Id.* at 117. Notwithstanding the University's assertion that any hypothetical scenarios involving the dispersion of noble gases during a reactor core meltdown were ''incredible'' because they would require the combined failure of ''three independent redundant safety systems,'' the Board found that such a combined failure did not ''altogether strain[ ] credibility.'' *Id.*

Applying that *Georgia Tech* reasoning to the matter before us, we conclude — at this preliminary stage of the proceeding — that here too it would be neither ''extravagant'' nor ''a stretch of the imagination'' to presume that some injury to neighbors could occur within the vicinity of the CFC irradiation facility. Just as it was possible to imagine a plausible scenario, albeit a highly unlikely one, in which three independent redundant safety systems — all designed to function perfectly under normal circumstances — could simultaneously fail in a research reactor, it is equally possible to envision an equally unlikely, yet plausible, scenario in which an accident of some sort could damage the armored pool containing the cobalt-60 at the CFC facility. Even the Company appeared to acknowledge that what it would call a very strained accident scenario could result in the dispersion of radioactive material into (or the transmission of gamma radiation through) the air (*see* Tr. at 153);[14] we can also visualize a sequence of failures whereby radioactive particles could enter the water, escape a defective or damaged pool (*see* p. 330, below), and affect the surroundings.

We recognize, as did the Appeal Board in *Armed Forces,* that further analysis on the *merits* may reveal that there is, in fact, no credible pathway through which radiation from the CFC source could be released to the public. *See* ALAB-682, 16 NRC at 155. But we cannot say definitively at this threshold *standing* stage

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[13] *See Virginia Electric and Power Co.* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 56 (1979) (petitioner relieved of having to demonstrate causation if the proximity presumption applies).

[14] Although the transcript attributes this statement to the Presiding Officer, it was actually spoken by Mr. Thompson, counsel for CFC.

that by no ''stretch of the imagination'' could such exposure possibly occur. *See Georgia Tech,* CLI-95-12, 42 NRC at 117. Accordingly, we find that the cobalt-60 inventory that the license would authorize the Company to possess would be a significant source of radioactivity that produces an obvious potential for offsite consequences. On that basis, we hold that it is appropriate to make the ''proximity-plus presumption'' available in this proceeding.

Having found that that presumption may be employed here, we next consider whether any or all of the twenty-five named Petitioners may indeed base their standing on that presumption, i.e., whether their homes are located close enough to the CFC facility for that purpose. The requisite distance, as the Commission observed in *Sequoyah Fuels,* ''depends on the danger posed by the source at issue.'' CLI-94-12, 40 NRC at 75 n.22.

For further guidance on this point, we turn to the Appeal Board's *Armed Forces* decision, over which there was considerable disagreement between the Company and Petitioners regarding its applicability to the instant proceeding. At issue in *Armed Forces* was the renewal of a Part 30 byproduct materials license that authorized the applicant to possess up to 320,000 curies of cobalt-60 in a water-shielded irradiation facility. *See* ALAB-682, 16 NRC at 150. The Appeal Board there reversed the Licensing Board's decision denying the petitioner organization standing to intervene. In finding that the organization's standing did exist, the Appeal Board disagreed with the Licensing Board's determination that the petitioner — some of whose members lived within 3 to 5 miles of the facility — was required to show specifically how the radiation would be released from the facility to the public. *See id.* at 152, 153.

In addition, we note that, although the Appeal Board did discuss at some length its earlier *North Anna* opinion, in which it had held that in a reactor licensing proceeding proximity alone was sufficient to establish the requisite interest,[15] it also made much of the size of the cobalt-60 inventory at the *Armed Forces* facility, referring to it as a ''substantial source of radioactive material.'' *See Armed Forces,* ALAB-682, 16 NRC at 154. In that connection, the Appeal Board further noted that at least one member of the petitioner's organization lived as close as 3 miles from the 320,000-curie source (then described as being one of the largest cobalt-60 inventories in the country), and that ''[t]his proximity to a large source of radioactive material establishes petitioner's interest.'' *Id.*

Thus, as we see it, the Appeal Board reversed the Licensing Board's finding, not *solely* on the basis of the member's proximity to the facility, but rather, on the basis of the member's proximity to such a ''substantial source'' of radioactive material. Our reading of *Armed Forces* — and its continued validity — is

[15] *See North Anna,* ALAB-522, 9 NRC at 56.

confirmed by more recent Commission decisions on point, including *Sequoyah Fuels* and *Georgia Tech,* both of which cite *Armed Forces* with approval.[16]

In addition to asserting that *Armed Forces* is not controlling in this proceeding, the Company attempts to distinguish it factually from the instant case by arguing (1) that the Armed Forces facility was merely a cobalt-60 storage facility, rather than an irradiation facility,[17] and (2) that the Armed Forces facility used a panoramic source that exposed the cobalt to the air, rather than an underwater source.[18] Clearly, the Company's first argument is not accurate. *See Armed Forces,* ALAB-682, 16 NRC at 152. And although the Company is correct that the Armed Forces facility operated in different fashion, the difference in design — even if CFC's underwater design is ''better'' — does not preclude either the Commission's *Georgia Tech* ''stretch of the imagination'' rationale from applying here or the Appeal Board's *Armed Forces* decision from providing valuable guidance for our purposes.

On that score, three Petitioners in the proceeding before us, namely, Andrew Ford, Tom Helt, and Kelly Helt, live approximately one-third of a mile from the CFC facility. In contrast, the closest petitioner in *Armed Forces* lived *nine times farther* from that facility. The CFC facility would be licensed to hold up to 1 million curies of cobalt-60, over *three times more* than the *Armed Forces* inventory. When we combine these distance and source factors, the above-named Petitioners before us are seen — for standing purposes — to be significantly more susceptible to being affected by the CFC facility than were the *Armed Forces* petitioners by that facility. To be sure, there may be improvements in the CFC facility design over that of the Armed Forces facility that may reduce that susceptibility somewhat. But this is of insufficient moment — for we have already indicated it is possible to visualize pathways for the nearest CFC Petitioners actually to be affected (*see* p. 320, above), and we thus find that at least these three Petitioners have demonstrated their standing to intervene in this proceeding.

In the course of establishing their standing, these Petitioners have also provided information showing that the other factors weighing on the grant or denial of a hearing request (*see* pp. 317-18, above) support their participation. It would add nothing to this opinion to belabor those obvious points.

Our finding that at least some of the Petitioners have standing enables us to move on to the next step in ruling on the hearing request, i.e., the germaneness of their concerns. As a practical matter, then, because the matter can move forward

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[16] *See Sequoyah Fuels,* CLI-94-12, 40 NRC at 75 n.22; *Georgia Tech,* CLI-95-12, 42 NRC at 116, 117.

[17] *See* CFC Response to Hearing Request at 11 n.12.

[18] *See* Tr. at 156; *see also* CFC Logistics, Inc.'s Supplement to the Presiding Officer's Questions at Oral Argument (Oct. 7, 2003) at 1-2.

based on the standing of the three, we need not decide at this time whether *all* the Petitioners have standing.

There is a further reason not to rule on the standing of all the Petitioners. Because the Staff did not previously issue a formal notice of hearing, the NRC Rules of Practice (section 2.1205(j)) require us now to publish a formal notice of hearing in the *Federal Register.* This could lead to additional persons or entities with affected interests filing petitions to intervene in this proceeding. In light of the possibility that additional individual parties or organizations may later seek to join,[19] we think that rather than ruling on the standing of all current Petitioners at this time, it is more sensible to await further developments. Accordingly, we now move forward to considering the ''germaneness'' of the ''areas of concern'' that these Petitioners presented.

III. GERMANENESS OF PETITIONERS' CONCERNS

Having determined that at least some of the Petitioners have the requisite standing to pursue a request for a hearing before us, we must analyze the ''areas of concern'' they have presented to determine whether they are ''germane'' to the matter before us and thus can be the trigger for a hearing. Before turning to the particulars of the concerns presented, we pause to set out our understanding of the ''germaneness'' test.

A. The Applicable Standards

Even cursory examination of the Subpart L Rules makes clear that they set out a relatively simple process for triggering informal hearings on matters such as the materials license we have before us. For a Subpart L proceeding like this one, all that is required is to demonstrate that an ''area of concern'' is ''germane.'' *See* 10 C.F.R. § 2.1205(h). NRC jurisprudence confirms the existence and sets out the workings of that relatively simple ''germaneness'' standard, and explains why that standard is appropriate.

The minimal pleading standard a hearing requestor must meet is perhaps best understood in terms of the corresponding level of burden placed on an applicant/licensee to respond when a Subpart L hearing is triggered. For example, triggering a Subpart L hearing does not lead to prehearing discovery — for none is permitted. 10 C.F.R. § 2.1231(d). Nor does it require preparing to present or to cross-examine live witnesses — for no live trial is mandated. *See* 10

[19] The Rules do permit us, in managing the hearing process, to take steps ''in the interest of avoiding repetitive factual presentations and arguments.'' 10 C.F.R. §§ 2.1205(n), 2.1209. These could include, for example, consolidating presentations by petitioners/intervenors having similar concerns.

C.F.R. § 2.1233 (*compare* 10 C.F.R. § 2.1235). Instead, the applicant/licensee may need only eventually to prepare a written testimonial response to whatever written testimony is later submitted by the petitioner/intervenor (*see* 10 C.F.R. § 2.1233(a), regarding sequencing of presentations).

In practice, efforts to avoid even that level of burden to respond have not been easy to sustain. For example, in *International Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-02-6, 55 NRC 147 (2002), the Presiding Officer noted that, in opposing a hearing, the licensee was ''vigorously insist[ing]'' that the petitioner's ''concerns are not well founded.'' *Id.* at 151. The Presiding Officer conceded (*ibid.*) the following:

> That position may well ultimately be upheld. Further exploration of the matter may indeed produce the necessary conclusion that, in point of fact and contrary to [petitioner's] claim, [the propounded concern] does not pose a real threat to [petitioner's] health and well-being . . . .

Nonetheless, he went on to hold (*id.* at 151-52) that

> That consideration is, however, of no present moment. As the terms of section 2.1[2]05(e) and (h) make clear, at this seminal stage of an informal Subpart L proceeding, it is enough that the hearing requestor has set forth with sufficient particularity one or more germane areas of concern . . . . *Whether the concern(s) advanced are also meritorious is for later determination. See* 10 C.F.R. § 2.1233. [Emphasis added, footnote omitted.]

In a more recent proceeding, the same Presiding Officer (Judge Rosenthal) elaborated on his earlier rationale:

> Not surprisingly . . . the Licensee does not regard any of the claims to be meritorious. And it might well turn out that, in fact, none of them has substance. But, to reiterate what was said in LBP-00-9, that consideration is entirely irrelevant at this stage of the proceeding. *It is enough that a hearing requestor present at least one area of concern that bears upon the matter at hand . . . leaving the question of the justification for that concern to the hearing stage.* [Emphasis added.]

U.S. Army (Jefferson Proving Ground Site), LBP-03-2, 57 NRC 39, 42 (2003).

In affirming the *White Mesa* decision that the petitioners ''have standing, have asserted a germane area of concern, and can proceed to hearing,'' the Commission addressed the licensee's ''claims that the Presiding Officer accepted [petitioner's] areas of concern without analyzing how detailed, 'concrete[ ],' or 'particulari[zed]' those concerns were.'' CLI-02-10, 55 NRC 251, 252, 257 (2002). Rejecting those claims, the Commission held that the conclusion below that petitioner had ''set forth with particularity one or more germane areas of

concern'' was ''plainly . . . reasonable'' because those ''*concerns on their face relate to the subject matter of the license amendment at issue . . . .*'' (*Id.* at 257, emphasis added.)

Going on, the Commission held that a statement of concerns ''need not be extensive, but [need only be] sufficient to establish that the issues the requester wants to raise regarding the licensing action *fall generally* within the range of matters that properly are subject to challenge in such a proceeding.'' (*Ibid.,* emphasis in original.) As the Commission saw it, the purpose of presenting areas of concern is simply to ''provide the Presiding Officer with the *minimal information* needed to ensure the intervenor desires to litigate issues germane to the licensing proceeding and therefore should be allowed to take the additional step of making a full written presentation under § 2.1233.'' (*Ibid.,* emphasis in original.)

In another proceeding, the Commission rejected a licensee's claims that the petitioner's ''hearing request is so vague and so broad as to potentially cover all questions under review by the NRC Staff,'' such that ''the Presiding Officer could not have made a proper determination that these areas of concern were actually germane.'' *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 16 (2001). In support of this argument, the licensee had objected to the Presiding Officer's alleged laxity in allowing the parties to delay ''identify[ing] 'issues for litigation' [until] prior to the hearing.'' *Id.* In this regard, the licensee thought that the Presiding Officer should not, ''while finding several broad areas of concern to be germane,'' have ''also stated that 'specific issues' may be further 'particularized' prior to the hearing.'' *Ibid.* As the Commission put it, the licensee was arguing ''that if it is necessary for [petitioner] to narrow its concerns prior to the hearing, they must not be specific enough to trigger a hearing.'' *Ibid.*

In response, the Commission — noting that the Presiding Officer had ''examined each of [petitioner's] concerns carefully, accepting some and rejecting others'' — held (*ibid.*) that he

> *rightly did not insist on comprehensive pleading or extrinsic support,* for Subpart L itself does not. *Compare* 10 C.F.R. § 2.1205(e)(3) *with* 10 C.F.R. §§ 2.714(b)(2) (Subpart G). Under Subpart L, the intervenor's pleading burden is modest. The would-be intervenor must only state his areas of concern with enough specificity so that the Presiding Officer may determine whether the concerns are truly relevant — i.e., ''germane'' — to the license amendment at issue. *See, e.g., Babcock and Wilcox Co.* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-4, 39 NRC 47, 52 (1994); *International Uranium (USA) Corp.* (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137, 142-43 (1998). [Emphasis added.]

As additional justification for so holding, the Commission explained (*ibid.*) that an

> intervenor cannot be expected to substantiate its concerns exhaustively before it has access to the hearing file: ''It would not be equitable to require an intervenor to file its written presentation setting forth all its concerns without access to the hearing file. Of course, the intervenor is required to identify the areas of concern it wishes to raise in the proceeding, which will provide the presiding officer with the minimal information needed to ensure the intervenor desires to litigate issues germane to the licensing proceeding . . . .'' Statement of Consideration, ''Informal Hearing Procedures for Materials Licensing Adjudication,'' 54 Fed. Reg. 8,272 (Feb. 28, 1989).

Similarly, the Commission rejected (*id.* at 17) the licensee's

> argument that the Presiding Officer improperly deferred the requirement for [petitioner] to further specify its areas of concern until the prehearing conference. The applicable regulations authorize the Presiding Officer to order the parties to narrow the issues prior to the hearing. *See* 10 C.F.R. § 2.1209(c). As this is specifically authorized in the regulations, it does not amount to a concession that [petitioner's] original concerns were stated with insufficient specificity.

The upshot was a holding that ''the Presiding Officer properly permitted [petitioner] to move forward with its case'' (*ibid.*), and further confirmation that it is indeed a very limited threshold pleading obligation that is imposed upon a Subpart L hearing requester.

Put simply, then, the Commission has made it clear that what is in issue now under that threshold obligation is *not* whether Petitioners have put forward comprehensive pleading of, or demonstrated extrinsic support for, their areas of concern; rather, the issue is only whether they have pointed to relevant areas specifically enough to be permitted to move forward toward a written presentation of their supporting evidence.[20] In the next section, we apply this test to the areas of concern they presented, which were grouped in seven overall categories containing some sixteen specific concerns, seven of which the NRC Staff argued

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[20] We do not understand what the Commission had to say just the other day, on an analogous subject in a Subpart G case, to detract from what it has previously held about Subpart L's minimal pleading requirements. *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213, 219 (2003).

were legitimate subjects for hearing but all of which the Company argued were not germane.[21]

Before turning to those questions, we address three overarching — but misdirected — arguments that appear to underlie the Company's position that we cannot entertain *any* of the areas of concern propounded by Petitioners.[22] The first is straightforward: the Company frequently appeared to rely upon its view — based on its belief that its facility is quite well designed — that each area of concern can be shown to be nonmeritorious. As is clear from the foregoing, however, that is a test for another day. For now, all that we need determine is whether the area of concern is relevant to the license application being considered, and is subject to being addressed in this proceeding.

The Company's second general argument is a variation of the first. The Company points to Part 36 of the agency's regulations and argues that those regulations embody rejection of the points the Petitioners are raising. This argument misconstrues the role of regulations in a proceeding before us. To be sure, the regulations set the standards that must be applied to a facility like CFC's, but they do not embody a determination that the facility meets those standards. That the Company believes that its facility complies with those regulations, and that it has the Staff's endorsement of that view, does not remove the issue from our purview. *See* notes 1, above, and 32, below.

Nor does the Company prevail by conflating the concepts of germaneness and standing. That is, in some instances the Company seems to assert that a concern cannot be germane unless the Petitioners have shown a clear radiological pathway for that concern to have an impact upon them. But where the issue of standing has already been settled in Petitioners' favor by allowing them to rely upon the proximity-plus presumption, there is no requirement that Petitioners reestablish or particularize their standing as to each stated concern, so long as that concern bears upon the specific status (for example, ''neighbor'') upon which their overall standing is based.

The Company's final generalized argument is a two-step one: that Petitioners can raise only those concerns that deal with threats that go ''above and beyond previously approved activities,'' and that the Part 36 regulations approve what

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[21] As we noted above (p. 314), the litigants filed a number of early, somewhat diffuse pleadings. On August 7, we directed them to file additional pleadings that would better focus the issues. In framing this decision, we have drawn upon the arguments the litigants made in those additional pleadings (looking specifically at the areas of concern as restated by the Petitioners on August 14, and at the responses thereto filed on August 27 and September 5 by the NRC Staff and by the Company, respectively) and at the September 10 oral argument. The germaneness of matters presented in later pleadings, involving amended or supplemental concerns, will be addressed at future prehearing conferences (see p. 335, below).

[22] *See, generally,* CFC Logistics, Inc.'s Response to NRC Staff's Brief on Standing and Petitioners' Areas of Concern (Sept. 5, 2003) [hereinafter CFC Response to Staff Brief], at 27-50.

the Company is doing. *See, e.g.,* CFC Response to Staff Brief at 15; *see also id.* at 14, 27. We have already seen that reliance upon the regulations for this purpose is misplaced. More importantly, the ''previously approved'' premise involves a misreading of the *White Mesa* holdings, which are the only authority cited (*id.* at 15) to provide justification for the remarkable principle the Company is attempting to induce us to adopt. *International Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-02-19, 56 NRC 113 (2002).

Insofar as is relevant here, *White Mesa* involved not an initial license but a series of license *amendments* sought by a uranium reprocessor. In passing on amendments under which the reprocessor sought to acquire new uranium streams, both the Presiding Officer and the Commission held repeatedly that the only matter about the pending license amendment subject to challenge was the *new* waste stream, not the ''previously approved'' underlying operation itself or any of the ''previously approved'' waste streams.[23] CLI-01-21, 54 NRC 247, 251 (2001) (''a petitioner's challenge must show that the amendment will cause a ' ''distinct new harm or threat'' apart from the activities already licensed,' '' *citing* CLI-01-18, 54 NRC 27 (2001); *see also* LBP-02-6, 55 NRC 147, 151 (2002) (directing that a hearing be held because the new material for reprocessing cannot ''be equated with material previously received at and processed by the Mill.'')

In other words, all *White Mesa* stands for in our context is that in a license *amendment* proceeding, the underlying nature of the business or of activities that previously won approval in the licensing process cannot be reopened; rather, only the incremental impact of the activity that is the subject of the amendment can be challenged. Put another way, it seems abundantly clear that the Commission's and the Presiding Officer's use of ''previously approved'' in that context involved an underlying license, or a prior license amendment, that *had already been subject to the NRC hearing process* and had passed muster, either because no hearing was sought or granted, or because the reprocessor prevailed on the merits of a hearing. The adjudicators were simply, and unremarkably, refusing to permit a retrial of matters previously litigated.

The Company's attempt here to stretch that holding — so as to call its proposal ''previously approved'' to the extent there exist general regulations against which the NRC Staff has measured that proposal — ignores that, in sharp contrast to the *White Mesa* situation, *the initial license proposal before us has not yet been tested against those regulations in the hearing process.* Nothing about the Company's proposal, then, can be regarded as ''previously approved'' within the meaning of the *White Mesa* line of cases.

[23] See also the colloquy on this subject at the oral argument (Tr. at 207-09).

B. The Petitioners' Concerns

Applying the proper standard, and putting aside the Company's overall arguments that we have found unavailing, we need provide only abbreviated additional reasoning to reach the following conclusions as to each of the areas of concern presented.[24] Because the Petitioners encountered some difficulty in obtaining documents in timely fashion for review by their expert advisor (*see* LBP-03-16, 58 NRC at 143 n.13), we have construed their pleadings liberally. In those pleadings, the Petitioners furnished for each concern a statement of (1) the ''event'' of concern; (2) the projected ''impact'' of that event; (3) ''substantiation'' in terms of a chain of causation that could be a trigger for, or the result of, the event in question; and (4) a ''source'' in terms of scientific literature or expert opinion. We also do not perceive a need for present purposes to recap the content of either the Petitioners' pleadings or the Company's and the Staff's responses.

1. ''Air Dispersion''

Petitioners advanced seven specific concerns related to their overall concern about inadequate planning ''to assure against air dispersion,'' presumably of radioactive material or gamma radiation.

1.1.[25] *Vessel Cracking.* In the circumstances of late document disclosure, we read this concern about cracking of ''the vessel containing the cobalt-60'' from ''loss of coolant'' as fairly embracing a concern about an accident — for example, one caused by dropping a heavy weight (such as a transfer cask) while it is suspended above the pool — damaging the structure of the pool holding the water in which the cobalt-60 sources would sit, possibly releasing the pool water into the ground and thus affecting the surroundings (while also losing the pool water's capacity to shield the surroundings from the sources' gamma radiation). That the Company believes this scenario far-fetched (and thus defeatable on the

[24] There is more than a suggestion in a number of NRC precedents discussed above that we need only find one or more concerns to be germane to trigger a hearing, and thus need not address at this stage all of those that are pending. Given that an immediate appeal by the Company is permissible, however (*see* p. 337, below), and given the extent of the review we previously undertook in resolving the stay motion issues, we think it more prudent here to cover all, or at least most of, the concerns, lest a Commission reversal on the one concern discussed leave the ultimate result — that a hearing is in order — subject to repetitive reevaluation as additional concerns are discussed *seriatim.* On the other hand, we think it not a good use of our resources at this stage — in light of the modest test the Petitioners must meet and the stricture to avoid premature discussion of the merits — to address each of the concerns in great detail. *Compare Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), LBP-99-46, 50 NRC 386, 396-406 (1999) with *Molycorp, Inc.* (Washington, Pennsylvania), LBP-00-10, 51 NRC 163, 171-75 (2000).

[25] Misnumbered ''1.2'' in August 14 pleading.

merits) does not make it nongermane. The NRC Staff believes it germane, and we agree.[26]

1.2. *Air Circulation.* This concern is about radiation being emitted into the ''air circulati[ng] around the vessel containing the cobalt-60'' and thus being transported into surrounding neighborhoods. The cobalt-60 sources would sit inside a plenum immersed in a pool of water, with the only air circulation within the plenum itself. As framed, this concern about air circulation is not applicable or relevant to an underwater irradiator and thus cannot be considered germane, notwithstanding the Staff's willingness to agree that it is.

1.3. *Radioactive Waste.* This concern is about radiation emission from ''storage of radioactive waste at the facility.'' Although the Company urges that no waste as such will be ''stored'' there, the concern is framed broadly enough to cover emissions from materials collected periodically during ''water chemistry controls,'' which will take place as part of the facility's operation. As so understood, the concern is germane, as the Staff agrees.

1.4. *Rod Mishandling.* Concern about the mishandling of the cobalt-60 sources during transportation, loading, and removal is plainly germane, as the Staff agrees. The Company's arguments to the contrary are entirely merits-based and thus not cognizable at this juncture.[27]

1.5. *Electricity Loss.* In expressing concern about a loss of power, the Petitioners mistakenly refer to ''a bell containing cobalt-60'' being stuck underwater with damaging consequences. As they learned thereafter, including during the facility visit the day of oral argument, the immersible bells contain only the food and other products to be irradiated, while the cobalt-60 sources remain at the bottom of the pool. The Company argues that the specific problem is thus not applicable or relevant to the application for this irradiator. But there are other problems that could stem from the concern about loss of facility electricity, and on this basis we find that broad concern germane (as does the Staff), subject to its being stated more specifically at the proper juncture (*see* p. 326, above, citing the Commission's reliance, in *Sequoyah Fuels,* on 10 C.F.R. § 2.1209(c) conferences to specify and narrow the issues).

1.6. *Air-Line Damage.* We discussed in LBP-03-16 the role of the air lines, both of which are subject to damage. 58 NRC at 146. Although we there accepted the Company's arguments about the lack of sufficient showing of probability of success on the merits or of irreparable injury, that is not the test here (*see* note

[26] For the Staff's views on each of the areas of concern, *see* Staff Brief at 5-11.

[27] We should note that our earlier ruling on the stay motion required us to take the standard look at whether the Petitioners had carried the heavy burden of demonstrating ''probability of success on the merits'' and ''irreparable injury.'' As we indicated then (LBP-03-16, 58 NRC at 144-45, 148, no conclusions we reached there against the Petitioners are determinative on the questions now before us, dealing with whether they have carried the less rigorous burden of demonstrating ''germaneness.''

27, above), and we agree with the Staff that concerns about damaged air lines are germane.

1.7. *Ozone Dispersion.* As the Company points out, ozone generation is a characteristic of panoramic irradiators, in which the source operates in air and can thus convert oxygen to ozone. This is not the case with an underwater irradiator, and thus this concern is not germane, being inapplicable or irrelevant to the application under consideration.

1.8. *Untried Installation/Assembly.* The Company believes its design is state-of-the-art and thus should present less concern to nearby residents than older designs. The Petitioners see the converse: an untried design. Although this concern is lacking in particulars, Petitioners point to the difficulty and delay they encountered in obtaining trade secret material — a view we have already indicated we share (*see* LBP-03-16, 58 NRC at 143 n.13) — that they needed to review in order to be more precise in their pleadings. On that basis, we are unwilling at this juncture to find this concern lacking in germaneness. We note, however, that a challenge to the facility design as untried or untested, uncoupled with a claim that the design fails to meet the applicable regulations, might be viewed as an impermissible collateral attack on NRC regulations. 10 C.F.R. § 2.1239. If so, it would not be within our jurisdiction to entertain, and accordingly would not be germane to the proceeding before us. In any event, to the extent this matter does move forward, it should be combined with concern 6, below.

2. ''Neighbors' Security''

Under this general heading, Petitioners advance two specific concerns.

2.1. [*Untitled*]. To the extent this concern puts forward an overly generalized claim of ''inadequate regulation,'' it seems to present a challenge to the Commission's regulations that may not be entertained in our proceedings. 10 C.F.R. § 2.1239. Accordingly, this concern is not germane to any issues that can be addressed, or to any relief that can be granted, in this proceeding. To the extent, however, that this concern mentions security planning, it is germane, but should be combined with 2.2 and 5.2, below.

2.2. *Security Plan Inadequacy.* Notwithstanding the opposition of the Company, this concern, on which the Staff is willing to defer judgment, is plainly germane. The lack of specificity accompanying it was due to the Petitioners' inability to obtain the relevant documents — which were being withheld under various and changing claims of secrecy — in timely fashion. As with concern 2.1, above, this concern should be combined with 5.2, below, whose precise contours remain to be defined (*see* p. 332, below, and LBP-03-16, 58 NRC at 145).

3. Worker Exposure

Under this general area, Petitioners present a single specific concern (numbered 3.1) about the potential for worker exposure to radiation. In apparent recognition, however, that nearby residents may lack standing to raise concerns about worker health and safety, Petitioners specify a concern about a worker becoming contaminated with radioactive particles that later contaminate neighboring people and structures. Given that the concern as stated provides ''substantiation'' only by reference to cesium-137 sources, we are constrained to accept the Company's and the Staff's arguments and to find it nongermane as to the doubly encapsulated cobalt-60 sources that are the subject of this application.

4. Neighbors' Water

Petitioners express concern over possible cobalt-60 contamination of the public water system, particularly in light of the alleged closeness of the local water table to the surface. At oral argument, they expressed concern that the largely underground pool could be damaged in some kind of accident, releasing its (possibly contaminated) water into the water table, thus contaminating local wells. And in their pleadings they referred to prior incidents in which contaminated pool water was introduced into the public sewer system. The Company's and the Staff's protestations that such accidents and incidents elsewhere are not credible given the facility's design go to the merits, not to the germaneness, of the concerns, and we will therefore allow them to be considered.

5. Transportation Hazards

In expressing their concern about the hazards associated with transporting the cobalt-60 sources, Petitioners have focused on both accidental and deliberate causes.

5.1. *Accidents.* Petitioners note the absence in the application of emergency procedures for responding to loading and unloading accidents. The Company's and Staff's objection that the concern is stated in generalized fashion is not adequate to defeat the obvious germaneness of this concern, particularly in light of the difficulties and delays encountered by Petitioners in obtaining documents related to the application.

5.2. *Sabotage or Terrorism.* As indicated in 2.2 above, this concern is germane and the two should be addressed together.

6. Experimental Design

Although the Staff did not agree that the similar concern already discussed in 1.8 above was germane, it does concede that the Petitioners' concern that

this irradiator is ''atypical, . . . experimental and unprecedented'' is sufficiently germane. We agree with the Staff here and will direct that the two concerns be considered together.

7. General

Under this heading, the Petitioners express a concern about the sufficiency of the decommissioning bond and the absence of a decommissioning plan. The latter concern is clearly factually germane, but the Staff argues that the former is ''legally inapplicable'' to this facility in that the amount of the bond — $75,000 — is preordained by existing regulations. With this concern otherwise germane, we believe that the resolution of whether the matter is precluded by Commission regulation may properly be deferred for now. Before ruling on whether the matter of bond adequacy is precluded from consideration in this proceeding by 10 C.F.R. § 2.1239(a),[28] we will want the parties to address the significance, if any, of (1) the apparently multi-million-dollar cost recently incurred under NRC and Environmental Protection Agency auspices to remediate a site elsewhere in the Commonwealth on which was located an abandoned cobalt-60 irradiator,[29] and (2) an apparently impending NRC rule change regarding the size of decommissioning bonds.[30]

As has been seen, a number of the areas of concern presented by the Petitioners are germane to the Company's application and to the outcome of this proceeding.[31] That being so, it will be necessary to hold a hearing to address those concerns and to determine whether the facility can maintain its license and, if so, under what conditions.[32]

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[28] *See also* 10 C.F.R. § 2.1239(b).

[29] *See* ''Radioactive Material Removed from Bankrupt Central Pa. Site,'' NRC News Release, September 29, 2003, and the related September 29 news release issued by the Pennsylvania Department of Environmental Protection.

[30] *See* ''NRC Proposes Changes to Regulations on Decommissioning Funding,'' NRC News Release, September 27, 2002, and Proposed Rule, 67 Fed. Reg. 62,403 (Oct. 7, 2002).

[31] To recap, we find the *germane* areas of concern to be as follows: 1.1 (pool cracking); 1.3 (waste collection); 1.4 (rod mishandling); 1.5 (electricity loss); 1.6 (air-line damage); 1.8 and 6 (untested design); *2.1,* 2.2, and 5.2 (security planning); 4 (neighbors' water); 5.1 (transportation accidents); and 7 (decommissioning bond/plan). The *nongermane* areas are: 1.2 (air circulation), 1.7 (ozone dispersion), *2.1* (inadequate regulation), and 3 (worker exposure).

[32] As we pointed out on September 23 — when we denied the Petitioners' motion to block the facility's receipt of the radioactive sources — the receipt of those sources, and any other steps taken under the license, are at the Company's risk pending the outcome of this proceeding, in which the license application will be evaluated and the awarded license could be invalidated. LBP-03-16, 58 NRC at 147-48.

Under Subpart L, that hearing will, at least initially, be based on written presentations only.[33] In its responses to whatever written material the Petitioners may present to support their concerns,[34] the Company will have full opportunity to put forward its various arguments that those concerns lack merit, arguments we have held were premature at this stage.[35] In the next portion of this opinion, we discuss briefly the path we will follow to get to that hearing.

IV. FURTHER PROCEEDINGS AND SETTLEMENT DISCUSSIONS

How soon the requisite hearing will take place remains to be seen. Because the NRC Staff did not publish a notice of hearing at the outset (*see* p. 315, above), the Rules of Practice governing materials licenses require us — having allowed these Petitioners to become parties and having directed that a hearing be held — now to issue a formal notice of hearing providing 30 days for prospective additional intervenors to file petitions. *See* 10 C.F.R. § 2.1205(d)(2)(i), (j), (k). A notice to that effect will be published in the *Federal Register* shortly.

Given the effort that these Petitioners have put into the matter, and our authority under the NRC's Rules of Practice to ''condition or limit participation in the interest of avoiding repetitive factual presentations and argument'' (10 C.F.R. § 2.1205(n)), it might in some circumstances be permissible, as well as prudent and efficient — while awaiting responses to that notice from potential new petitioners — to begin the written presentation process as to the existing Petitioners. Rather than follow that course, however, we think it would be more

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[33] *See* 10 C.F.R. § 2.1233, first sentence. *But see id.,* second sentence, and sections 2.1209(h) and 2.1235(a), providing the Presiding Officer the authority not only to present questions to be addressed in writing but, if need be, to summon particular witnesses to appear in person to respond to oral questions.

[34] As indicated above, the Petitioners pointed to some sixteen ''areas of concern'' to justify their hearing request. In presenting their written arguments in support of a stay, they focused on five key concerns: (1) the inadequacy of security measures; (2) the risk of accidental dispersion of radioactive material in air and water during loading, unloading, and transportation; (3) the absence of emergency procedures for dealing with a prolonged loss of electricity or for the range of accidents that could be caused by such a loss; (4) the absence of emergency procedures for accidents involving a break in the compressed air line; and (5) the inadequacy of the $75,000 bond to cover post-accident cleanup costs. (At oral argument, they placed primary emphasis on the first four items (Tr. at 228, 237, 240, 241-42)). Each of the five areas emphasized in the stay motion has now been found to be germane.

[35] The Staff's original election not to participate in the proceeding having been reinstated (*see* LBP-03-16, 58 NRC at 148), the hearing will, barring further developments, involve only the Company and the Petitioners. *It is likely, however, that we will consider directing the Staff to participate as to the legal issues and the factual aspects related to both the security and the decommissioning concerns. See* 10 C.F.R. § 2.1213, last sentence, and note 42, below.

effective here to embark upon prehearing activities that might well result in a more efficient and focused hearing.

That period will allow the resolution or the handling of matters like the following. As we have indicated, in some respects Petitioners were hampered by their inability to obtain documents associated with the application in a timely fashion. And it is now time for the Staff to prepare the hearing file called for by the Rules (10 C.F.R. § 2.1231). The Petitioners have filed additional papers with us since shortly after the oral argument, seeking various kinds of relief involving acquisition and use of documents, and filing of amended or supplemental statements of concerns.[36] We intend to use the response period provided by the formal Notice of Hearing, as well as the concurrent period for the Staff to prepare the hearing file, to address all these and any other appropriate matters.

In that regard, although formal discovery is forbidden, the Company elected before the oral argument to provide the Petitioners and the Board (along with the Staff, which is entitled to access to the facility in the course of its regulatory duties) the opportunity to tour its facility. Unfortunately, Petitioners' expert was not available to take advantage of that opportunity. At the Company's option, an additional opportunity for Petitioners' expert to tour the facility might result in greater efficiency in narrowing, reshaping, and focusing the issues for hearing.

To that end, we would like to couple such a site visit with a prehearing conference, to be attended not only by counsel but by representatives of the Company and the Petitioners, as well as by their experts, including, if possible, experts from the irradiator manufacturer. The key purposes of the conference will be (1) to clarify and to focus the issues and (2) to resolve — or to establish a plan for resolving — any pending requests for relief. If for any reason the Company is unwilling or unable to host a site visit in conjunction with a prehearing conference, or if for any reason the Petitioners object to holding such a conference at what might be perceived as a nonneutral site, we will hold the conference at some nearby location.

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[36] The Rules of Practice make it clear that ours is a ''motion practice,'' and that informal letter or e-mail filings are ordinarily not appropriate. 10 C.F.R. §§ 2.1203 and 2.1237 (incorporating § 2.730). In that regard, we recently advised the parties — in an e-reply that same morning to an October 16 incoming e-mail message — ''it is now time to insist that all counsel adhere to the formal motion practice set out in the agency's Rules . . . . Otherwise, as has occurred here, communications . . . may not be sufficiently particularized to allow fair evaluation; there is no set mechanism for obtaining the response of opposing counsel; the official NRC docket maintained by the Office of the Secretary will not reflect the filings that are being made; and any Commission or judicial review . . . will be based on an incomplete record.'' In our upcoming prehearing conference with the parties (*see* pp. 335-37, below), we will explore how to convert any matters upon which relief is still being sought to formal motions.

We have another purpose in mind for the conference. In promulgating the Rules of Practice which generally govern our proceedings, the Commission included a separate section promoting the value of settling disputes, which we think worth reciting here:

> The Commission recognizes that the public interest may be served through settlement of particular issues in a proceeding or the entire proceeding. Therefore, . . . the fair and reasonable settlement of contested initial licensing proceedings is encouraged. It is expected that the presiding officer and all of the parties to those proceedings will take appropriate steps to carry out this purpose.

10 C.F.R. § 2.759[37] (*compare* § 2.1241).[38] The Commission did not leave it at that, but reemphasized the point in *Rockwell International Corp.* (Rocketdyne Division), CLI-90-5, 31 NRC 337, 340 (1990), by noting that ''Commission policy strongly favors settlement of adjudicatory proceedings.'' *See also* Policy Statement on Alternative Means of Dispute Resolution (57 Fed. Reg. 36,678 (Aug. 14, 1992)).[39]

Certainly, this Commission viewpoint is consistent with the universal notion that reaching consensus is a valuable endeavor. We sense that a lack of communication and a consequent lack of understanding may have contributed to some of the differences among the parties that we have observed. *See* LBP-03-16, 58 NRC at 148 n.19 and accompanying text. Perhaps not all of those differences are amenable to resolution — indeed, perhaps none of them are — but we will use the conference to explore whether further settlement efforts would be fruitful.[40]

For the reasons expressed herein, we find that at least some of the Petitioners have standing and that some of the ''areas of concern'' they advanced are germane to this proceeding. Accordingly, their request for an evidentiary hearing

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[37] Made applicable to Subpart L by 10 C.F.R. §§ 2.2 and 2.3.

[38] *See also* 10 C.F.R. § 2.718(h) (Subpart G) and § 2.1209(c) (Subpart L), authorizing the presiding officer to hold settlement conferences.

[39] The Commission's two major policy statements on the conduct of hearings, although directed primarily to other subjects, both encourage attempts to reach settlements. *Statement of Policy on Conduct of Licensing Proceedings,* CLI-81-8, 13 NRC 452, 456 (1981), and *Statement of Policy on Conduct of Adjudicatory Proceedings,* CLI-98-12, 48 NRC 18, 19 (1998).

[40] We recognize that in *Rockwell* (CLI-90-5, 31 NRC at 340) the Commission endorsed the Appeal Board's placing of restrictions on the Presiding Officer's settlement efforts. In that regard, we will remain conscious of the obvious concerns that arise when a judicial tribunal that will eventually be called upon to decide a matter gets too heavily involved in the merits in the course of settlement discussions. If progress is made, we will be prepared at an early stage to recommend the appointment of a settlement judge, as has been done in other proceedings pursuant to the Commission's *Rockwell* suggestion (*ibid.*).

is GRANTED. Pursuant to 10 C.F.R. § 2.1231(a), the Staff shall prepare and file the hearing file within 30 days (i.e., by Friday, November 28, 2003), in the manner prescribed by that Rule and in the form prescribed in the margin.[41] We will cause to be published in the *Federal Register* a Notice providing potential additional intervenors the opportunity to participate in that hearing.

Further proceedings herein will be in accordance with the discussion in Part IV of this opinion. In that regard, the Presiding Officer intends to hold a telephone conference with the parties at 2:00 p.m. Eastern Standard Time on Wednesday, November 12, 2003, to discuss setting forth a schedule and directives for the conduct of the proceeding.[42]

Appeal Rights. Pursuant to 10 C.F.R. § 2.1205(o), CFC Logistics may, within 10 days of the service of this Memorandum and Order, take an appeal, in the format prescribed, to the Commission on the question whether the hearing request ''should have been denied in its entirety.'' Under that same provision, responses to any such appeal will be due within 15 days thereafter.

It is so ORDERED.

BY THE PRESIDING OFFICER

Michael C. Farrar
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 29, 2003

Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) CFC Logistics, (2) Petitioners, and (3) the NRC Staff.

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[41] The hearing file shall be chronologically arranged and prefaced with a numbered index of each item therein, which index shall reflect the name (or in lieu thereof a brief indication of the substance) and the date of each item. Each item in the hearing file shall be separated from the other hearing file items by a substantial colored sheet of paper, to which colored sheet shall be attached the numbered tab for the hearing file item that follows it. The hearing file shall be contained in binders that allow for ready inclusion of any supplements to the original material that may later be located. Any subsequent additions to the hearing file shall contain an index and be organized in the same manner as the original.

[42] The cover message transmitting the electronic service of this opinion to the parties will contain the information necessary to participate in that planning call. Each of the parties should respond by return e-mail to the Board as to which of its representatives will be participating. Notwithstanding our previous reinstatement of its election not to participate in the proceeding (*see* LBP-03-16, 58 NRC at 148), *the NRC Staff is welcome to participate in the call by responding in the same fashion* (*see* note 35, above).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman
Dr. Charles N. Kelber
Dr. Peter S. Lam

In the Matter of **Docket No. 70-03098-ML**
(ASLBP No. 01-790-01-ML)

DUKE COGEMA STONE & WEBSTER
(Savannah River Mixed Oxide Fuel Fabrication Facility) **October 31, 2003**

In this Commission-modified, Subpart L proceeding concerning the construction authorization request of Duke Cogema Stone & Webster (DCS) to build a mixed oxide fuel fabrication facility, the Licensing Board grants DCS's motion for summary disposition of consolidated contention 11 dealing with the impacts of the high-alpha liquid waste stream from the aqueous polishing process.

RULES OF PRACTICE: SUMMARY DISPOSITION

The Commission's Rules of Practice, 10 C.F.R. § 2.749, authorize motions for summary disposition for all or any part of the matters at issue in a proceeding. The summary disposition section is one of the many provisions of Subpart G in Part 2 of the Commission's Rules. Section 2.2 of Part 2 specifically provides that ''Subpart G sets forth general rules applicable to all types of proceedings except rule making, and should be read in conjunction with the subpart governing a particular proceeding,'' while section 2.3 of that same part provides that in the event of a conflict between a general Subpart G rule and a special rule in another

Part 2 subpart, the special rule governs. Although Subpart L makes no provisions for summary disposition, the generally applicable Subpart G summary disposition provision of 10 C.F.R. § 2.749 is nevertheless apposite pursuant to 10 C.F.R. § 2.2 because it presents no conflict with any provision of Subpart L.

RULES OF PRACTICE: SUMMARY DISPOSITION

It is not enough that the nonmoving party merely allege an ''issue of fact''; rather, the issue of fact must be ''genuine.'' In order to be ''genuine,'' the factual record, in its entirety, must ''be enough in doubt so that there is a reason to hold a hearing to resolve the issue.'' *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), LBP-83-46, 18 NRC 218, 223 (1983); *see generally* James Wm. Moore et al., *Moore's Federal Practice* ¶ 56.11[3] (3d ed. 1999).

MEMORANDUM AND ORDER
(Granting Duke Cogema Stone & Webster's Motion for Summary Disposition on Consolidated Contention 11)

We have before us the motion of the Applicant, Duke Cogema Stone & Webster (DCS), filed pursuant to 10 C.F.R. §§ 2.749 and 2.1237 for summary disposition of consolidated contention 11.[1] As consolidated and admitted, contention 11 claims, *inter alia,* that DCS's environmental report (ER) understates the impacts of the waste stream from the aqueous polishing process and fails to analyze the impacts of the high-alpha liquid waste transfer line.[2] Intervenor, Georgians Against Nuclear Energy (GANE), opposes the motion, arguing that the procedural rules applicable to this Commission-modified Subpart L informal proceeding do not permit summary disposition and, in any event, the motion is without merit.[3] The NRC Staff supports DCS's motion.[4] For the reasons set forth below, we grant the motion for summary disposition of consolidated contention 11.

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[1] *See* Duke Cogema Stone & Webster's Motion for Summary Disposition on Consolidated Contention 11 (July 9, 2003) [hereinafter DCS Motion].

[2] *See* LBP-01-35, 54 NRC 403, 442-44, 451-52 (2001); *see also* Board Memorandum and Order (unpublished) (Apr. 30, 2002) at 2 (consolidating Georgians Against Nuclear Energy's Contention 11 and Blue Ridge Environmental Defense League's Contention 1E). As the designated Lead Intervenor, GANE is responsible for litigating consolidated contention 11.

[3] *See* Georgians Against Nuclear Energy's Opposition to Duke Cogema Stone & Webster's Motion for Summary Disposition on Consolidated Contention 11 (July 29, 2003) [hereinafter GANE Response].

[4] *See* NRC Staff's Response to DCS Motion for Summary Disposition on MOX Waste Contention (July 29, 2003) [hereinafter Staff Response].

I. BACKGROUND

This proceeding involves DCS's construction authorization request to build a Mixed Oxide Fuel Fabrication Facility (MOX Facility) at the Department of Energy's (DOE) Savannah River Site. As noted in our ruling admitting the contention, DCS's ER indicated that DCS planned to pipe high-alpha liquid waste from the proposed facility a short distance to the F-Area tank farm at the Savannah River Site.[5] DCS's revised ER now states that this waste will not be transferred to the tank farm but instead will be transferred to a new DOE waste solidification building.[6] In DCS's original ER, Table 3-3 shows the estimated annual volume of the waste stream.[7] Subsequently, in revisions to the ER, DCS amended this table twice.[8] In February 2003, the Staff issued a draft Environmental Impact Statement (EIS) for the proposed facility containing, *inter alia,* Table 4.11, which estimates the total waste, both solid and liquid, generated by the proposed MOX facility. The figures in these tables are at the center of controversy over consolidated contention 11.

DCS argues that summary disposition is appropriate because contention 11 presents no genuine issues of material fact and it is entitled to judgment as a matter of law.[9] In its motion, DCS first sets out the various stipulations and ER revisions that have had the effect of reducing consolidated contention 11 to a single claim that ''the ER understates the impacts of the aqueous polishing stream to remove gallium.''[10] With respect to this single issue, DCS argues that GANE has no substantive basis for its claim, but instead only suspicion and conjecture. As support, DCS points to the deposition of GANE representative Glenn Carroll, who, when asked to explain why GANE believes DCS has underestimated its liquid waste stream from the aqueous polishing system, stated that, ''[w]e don't trust you and you haven't shown us anything and we don't trust that. That is the basis for our belief.''[11] According to DCS, it is entitled as a matter of law to the grant of its motion for summary disposition of consolidated contention 11 because mere suspicion cannot create a genuine issue of material fact.

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[5] *See* LBP-01-35, 54 NRC at 443.

[6] *See* MOX Hearing File item #161 (ER Rev. 3), § 3.3.2.2.

[7] *See* MOX Hearing File item #23 (original ER), Table 3-3, *reproduced in* GANE's Response, Exhibit 1.

[8] *See* MOX Hearing File item #109 (ER Rev. 2), *reproduced in* GANE Response, Exhibit 2; MOX Hearing File item #161, reproduced in GANE Response, Exhibit 4.

[9] *See* DCS Motion; DCS's Reply to GANE's Opposition to Motion for Summary Disposition of Consolidated Contention 11 (Aug. 11, 2003) [hereinafter DCS Response].

[10] *See* DCS Motion at 6.

[11] *Id.,* Exhibit 3, at 88:06–88:12.

In response to DCS, GANE claims that the motion should be denied because it is both procedurally prohibited and without merit.[12] GANE first argues that the motion is procedurally prohibited because, in its order referring the proceeding to the Licensing Board, the Commission set forth a number of additional procedures to be followed in the interest of effective adjudication, but did not include summary disposition.[13] Thus, GANE argues the Commission's silence regarding summary disposition procedures was intentional and meant to exclude such motions.

GANE also argues that DCS has not met the standards for summary disposition of consolidated contention 11 because there exist several genuine issues of material fact relating to the failure of DCS adequately to address the environmental impacts of the liquid high-alpha waste stream.[14] GANE does not challenge DCS's reduction of consolidated contention 11 to the single proposition that the ER underestimates the impacts of the aqueous polishing stream. According to GANE, its

> position is based on a commonsensical reading of the Environmental Report (''ER'') and draft Environmental Impact Statement (''EIS'') for the proposed MOX Facility, for which expert testimony is not necessary. GANE believes that the ER and draft EIS for the proposed MOX Facility are missing basic and generally comprehensible information that is necessary for the public to be able to understand and evaluate the environmental impacts of the proposed MOX Facility.[15]

Specifically, GANE offers four arguments as to why the environmental impacts have been insufficiently addressed: (1) revision 3 of Table 3-3 of the ER is not credible; (2) it is not clear how the NRC derived EIS Table 4.11 from ER Table 3-3; (3) ER Table 3-3 and EIS Table 4.11 are incomplete because the 84,000 curies of radioactivity from the liquid americium stream do not appear to account for plutonium which is also a component of the waste stream; and (4) ER Table 3-3 and EIS Table 4.11 do not provide enough data on how they were derived for the public meaningfully to refute their results.[16]

II. ANALYSIS

Contrary to GANE's assertion, there is no Commission prohibition in this informal Subpart L proceeding to resolution of contested issues by summary

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[12] *See* GANE Response.

[13] *See* CLI-01-12, 53 NRC 478, 480-82 (2001).

[14] *See* GANE Response at 8.

[15] *Id.* at 2.

[16] *See id.* at 9-14.

disposition. The Commission's Rules of Practice, 10 C.F.R. § 2.749, authorize motions for summary disposition for all or any part of the matters at issue in a proceeding. The summary disposition section is one of the many provisions of Subpart G in Part 2 of the Commission's Rules. Section 2.2 of Part 2 specifically provides that ''Subpart G sets forth general rules applicable to all types of proceedings except rule making, and should be read in conjunction with the subpart governing a particular proceeding,''[17] while section 2.3 of that same part provides that in the event of a conflict between a general Subpart G rule and a special rule in another Part 2 subpart, the special rule governs.[18] Although GANE is correct that Subpart L makes no provisions for summary disposition,[19] the generally applicable Subpart G summary disposition provision of 10 C.F.R. § 2.749 is nevertheless apposite pursuant to 10 C.F.R. § 2.2 because it presents no conflict with any provision of Subpart L. Nor does the Subpart G summary disposition provision create any conflict with the additional procedures the Commission grafted onto the proceeding in its referral order.[20] Accordingly, 10 C.F.R. § 2.749 is fully applicable to the modified Subpart L proceeding and DCS's motion for summary disposition is entirely appropriate.

Pursuant to 10 C.F.R. § 2.749, summary disposition of all or any part of the matter involved in a proceeding is warranted ''if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.''[21] In order to succeed on a motion for summary disposition, the movant must demonstrate that there is no genuine issue of material fact.[22] Because the movant bears the burden of proof, any evidence must be construed in favor of the nonmoving party.[23] In response, the nonmoving party must set forth specific facts showing that there is a genuine issue of fact.[24] It is not enough that the nonmoving party merely allege an ''issue of fact''; rather, the issue of fact must be ''genuine.'' In order to be ''genuine,'' the factual record, in its entirety,

[17] 10 C.F.R. § 2.2.

[18] 10 C.F.R. § 2.3.

[19] *See* GANE Response at 5-6.

[20] *See* CLI-01-13, 53 NRC at 480-82.

[21] 10 C.F.R. § 2.749(d).

[22] *See Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993).

[23] *See Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-17, 39 NRC 359, 361, *aff'd* CLI-94-11, 40 NRC 55 (1994).

[24] 10 C.F.R. § 2.749(b).

must ''be enough in doubt so that there is a reason to hold a hearing to resolve the issue.''[25]

GANE offers several arguments in support of its assertion that a genuine issue of material fact exists as to whether DCS's ER addresses the environmental impacts of the liquid high-alpha waste stream. As will be seen, however, none of GANE's arguments presents a genuine issue of material fact that precludes granting DCS's motion for summary disposition.

GANE first claims, in effect, that ER Table 3-3 is inaccurate because the alternate feed stock (AFS) listing in revision 3 of ER Table 3-3 represents the AFS and the pit disassembly and conversion facility (PDCF) waste combined, and therefore, the values for the AFS estimate should always be larger than the PDCF estimate.[26] For the excess acid stream, GANE cites from the table the value for PDCF as 2378 gallons and the value for AFS as 1321 gallons. According to GANE, these values make no sense.[27]

GANE's assertions are based upon a misapprehension of Table 3-3. In revision 3 of ER Table 3-3, the AFS and PDCF labels identify two different waste streams. GANE's assumption that the AFS category represents the combined PDCF and AFS is simply incorrect. As seen in column two of the revised Table 3-3, the maximum annual volume of excess acid stream for PDCF is 2378 gallons while that for AFS is 1321 gallons. There is no inconsistency between these two numbers and, contrary to GANE's assertion, the two waste streams are distinct and should not be combined. GANE's argument thus is without merit, although DCS's reference errors in its summary disposition motion, and its labeling and arithmetical errors in various changes to Table 3-3 in two subsequent revisions to the ER, likely has not helped GANE's understanding of the information contained in the chart.[28]

GANE's second assertion likewise fails to raise a genuine issue of material fact. GANE asserts that the relationship between Table 3-3 of the ER and Table 4.11 of the EIS is unclear. Because the EIS is based upon DCS's ER and, pursuant to the Commission's referral order, GANE has not yet had the opportunity to conduct discovery against the NRC Staff, it argues that summary disposition regarding the basis for the estimates in EIS Table 4.11 should not be granted.[29]

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[25] *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), LBP-83-46, 18 NRC 218, 223 (1983); *see generally* James Wm. Moore et al., *Moore's Federal Practice* ¶ 56.11[3] (3d ed. 1999).

[26] *See* GANE Response at 9-10.

[27] *See id.*

[28] *Compare* Duke Cogema Stone & Webster's Corrections Regarding Motion for Summary Disposition on Consolidated Contention 11 (July 22, 2003) *with* DCS Motion, Exhibit 2, ¶ 5, *and* Supplemental Affidavit of Mary Birch, ¶ 3 (July 28, 2003).

[29] *See* GANE Response at 10-11.

Again, GANE apparently misapprehends the relationship between the numbers in revision 3 of ER Table 3-3 and EIS Table 4.11, which chart two different things. As DCS correctly states, the two charts are ''apples and oranges.''[30] ER Table 3-3 lists the maximum annual volume of the aqueous polishing waste streams produced by the PDCF and the AFS. The chart addresses only the liquid wastes produced by the MOX Facility aqueous polishing process. On the other hand, EIS Table 4.11 identifies the waste volumes of the entire MOX Facility, in addition to wastes generated by the PDCF and the DOE waste solidification building. GANE's unilateral misunderstanding of Table 3-3 and Table 4.11 neither creates a genuine issue of material fact nor provides any basis for deferring ruling on DCS's motion until GANE can conduct discovery against the NRC Staff.

GANE's third and fourth grounds for seeking a denial of summary disposition likewise fail to establish a genuine issue of material fact. GANE declares that ER Table 3-3 is incomplete because it fails to detail all of the radioactivity contained in the liquid waste stream. According to GANE, the table only provides a value of 84,000 curies for liquid americium, but this figure gives neither the radioactivity for the plutonium-component noted in the table nor the radioactivity of the excess acid and alkaline waste streams.[31] GANE also claims that ER Table 3-3 is unsupported because it fails to furnish any information regarding the assumptions or calculations for the waste stream volume estimates.[32] Further, GANE claims that EIS Table 4.11 needs to account for the radioactivity levels of each component of the waste stream in addition to providing their volumes.[33] These arguments are unpersuasive.

While Table 3-3 does not provide a measurement of the radioactivity of the plutonium present in the liquid americium stream, GANE is incorrect in assuming that the amount of plutonium is large enough to affect significantly the radioactivity level of the stream or its environmental impacts. As ER Table 3-3 indicates, the amount of americium-241 in the liquid americium stream is 24.5 kilograms per year and contributes 84,000 curies of radioactivity.[34] The quantity of plutonium, however, is only 205 grams per year and therefore contributes a very small and insignificant amount of radioactivity compared to the americium-241. Indeed, as DCS points out in the uncontroverted affidavit of its expert, Mary Birch, supporting the motion for summary disposition, the 84,000 curies of radioactivity from americium is over 99% of the radioactivity of the high-alpha waste stream.[35]

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[30] *See* DCS Response at 5.

[31] *See* GANE Response at 12-13.

[32] *See id.* at 13-14.

[33] *See id.*

[34] *See* MOX Hearing File item #161 (ER Rev. 3), Table 3-3, *reproduced in* GANE Response, Exhibit 4.

[35] *See* DCS Motion, Exh. 2, ¶ 6.

The revised ER also states that 99.7% of the total annual radioactivity in the waste streams would come from the liquid americium waste stream.[36] Therefore, the 84,000 curies of radioactivity in the waste stream accounted for in ER Table 3-3 necessarily identifies the 24.5 kilograms of americium-241 as the only radioactive isotope that significantly contributes to environmental impacts. Additionally, as both DCS and the Staff note, the quantity of radioactive material in a given waste stream may be expressed in a number of reasonable units, including mass as well as radioactivity.[37] Therefore, this claim presents no genuine issue of material fact.

As noted by GANE, Table 3-3 does not list the radioactivity of the excess acid and alkaline waste streams, the other two components of the high-alpha waste stream. Rather, the table provides only the mass of the radioactive isotope-components of each of those streams, including 14 milligrams of americium in the acid waste as well as 16 grams of plutonium and 13 grams of uranium in the alkaline waste. According to DCS, these radioactivity levels are not included in the table because both streams produce only a nominal amount of radioactivity. Specifically, DCS's expert affiant states that the acid stream accounts for 0.04 curie of radioactivity while the alkaline stream accounts for 18 curies of radioactivity.[38] Thus, like the plutonium in the waste stream, the acid and alkaline waste stream components contribute an insignificant amount of radioactivity to the high-alpha liquid waste stream compared to the 84,000 curies of radioactivity from americium. Hence, this issue also does not present the Board with an issue of material fact to adjudicate.

GANE's argument that ER Table 3-3 is unsupported because it fails to furnish the assumptions and calculations used to derive the volume estimates is belied by the voluminous information found in the ER. For example, the ER describes the entire MOX fuel fabrication process in section 3.2 and supplements this description with several figures and tables, including Figure 3-4, which illustrates the flow of plutonium through such a process; Figure 3-5, which schematically represents the plutonium polishing process; Table 3-2, which lists the annual chemical consumption and onsite inventory; and Table 3-4, which lists the solid wastes produced by the dry subprocesses illustrated in Figure 3-7.[39] The ER then continues in sections 3.3, and G.1.2 to describe the breakdown of the waste management system and provides Tables 3-3 and 3-4, which summarize the waste volumes; Figure 3-6, which illustrates the primary source of liquid waste generated by the aqueous polishing process; Figures 3-10, 3-11, and 3-12, which summarize the treatment of airborne, liquid, and solid waste, respectively; and Table G-1, which looks at the liquid waste streams processed by the Waste

[36] *See* MOX Hearing File item #161 (ER Rev. 3), Appendix G.

[37] *See* NRC Response, Exh. 1, ¶ 8; DCS Motion at 9.

[38] *See* DCS Motion, Exh. 2, ¶ 6; Supplemental Affidavit of Mary Birch, ¶ 3 (July 28, 2003).

[39] *See* MOX Hearing File item #161 (ER Rev. 3).

Solidification Building.[40] As the ER states, these processes are based on actual experience from other facilities.[41] Additionally, there is no requirement that ER Table 3-3 must synthesize all other information in the ER. Indeed, such a feat would not be practicable. There is thus no foundation for GANE's claim that the ER lacks support. Because ''bald assertions'' such as those put forth by GANE do not create a genuine issue of material fact, summary disposition of this matter is appropriate.[42]

Lastly, GANE claims that the EIS Table 4.11 should provide the radioactivity figures of the waste streams in addition to providing their volumes. This claim, however, is outside the scope of consolidated contention 11 and untimely asserted. On April 30, 2002, the Board issued an order establishing a 30-day time period in which to file contentions in situations where a newly filed document gave rise to either a late-filed contention or an amendment to an already admitted contention. Specifically the Board stated:

> Any party filing a late-filed contention must, in addition to meeting the requirements of 10 C.F.R. § 2.714(b)(2), address each of the five factors set forth in 10 C.F.R. § 2.714(a)(1). All late-filed contentions shall be filed within 30 days of the initiating action, event, or document underlying the late-filed contention . . . . Absent extraordinary circumstances, a late-filed contention filed beyond the 30-day period will be found to lack good cause for the untimely filing. Finally, the Board reminds the Intervenors that they may need to file a late-filed contention or a late-filed amendment to an admitted contention if, for example, the scope, data, or conclusions set out in the draft EIS or the draft SER differ significantly from DCS's environmental report or construction authorization request. Failure to file a new late-filed contention or a late-filed amendment to an admitted contention may, upon a proper motion, result in the dismissal of an admitted contention.[43]

Further, the Commissions regulations, 10 C.F.R. § 2.714(b)(2)(iii), provide that a late-filed contention must be filed ''if there are data . . . in the NRC draft or final environmental impact statement . . . that differ significantly from data . . . in the applicant's document.'' Here, because DCS's ER Table 3-3 included data on the radioactivity of the contributor of over 99% of the radioactivity of the high-alpha waste stream, but the draft EIS excluded the same information, the data in the draft EIS necessarily differed significantly from that in the ER. Thus, pursuant to the Rules of Practice and the Board's earlier order, GANE was required to file a late-filed contention asserting the deficiency in the draft EIS within 30 days of the

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[40] *See id.*

[41] *See id.* at ES-4 and ES-6.

[42] *See Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-94-6, 39 NRC 285, 306-07 (1994), *aff'd, Advanced Medical Systems, Inc. v. NRC,* 61 F.3d 903 (6th Cir. 1995).

[43] Board Memorandum and Order (unpublished) (Apr. 30, 2003) at 3.

publication of that document. Having failed to proffer such a late-filed contention, GANE's attempt to expand consolidated contention 11 to address a deficiency in the draft EIS in order to defeat DCS's motion for summary disposition is both untimely and improper.

For the foregoing reasons, DCS's motion for summary disposition of consolidated contention 11 is granted.[44] GANE has failed to establish any genuine issue of material fact. Absent such a demonstration, DCS is entitled to the dismissal of contention 11.

THE ATOMIC SAFETY AND
LICENSING BOARD[45]

Thomas S. Moore, Chairman
ADMINISTRATIVE JUDGE

G.P. Bollwerk for
Dr. Charles N. Kelber
ADMINISTRATIVE JUDGE

Dr. Peter S. Lam
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 31, 2003

[44] As should be self-evident, we find, in accordance with the Commission's *Statement of Policy on Conduct of Adjudicatory Proceedings,* CLI-98-12, 48 NRC 18, 20-21 (1998) calling for such a written finding, that the grant of DCS's summary disposition motion of consolidated contention 11 reduces the number of issues to be resolved and thereby aids in expediting the proceeding. Indeed, due to the long delay injected into this case by the Applicant as a result of DOE's change in plans for the MOX facility and the subsequent Staff delay in producing the final EIS and safety evaluation report — a delay totaling some 15 months at this juncture — summary disposition is a highly efficient procedure for resolving a number of the issues in the proceeding.

[45] Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to (1) GANE, (2) BREDL, (3) DCS, and (4) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 40-8027-MLA-5**

SEQUOYAH FUELS CORPORATION
(Gore, Oklahoma Site) **November 13, 2003***

Sequoyah Fuels Corporation applied for a materials license amendment to possess byproduct material at its site near Gore, Oklahoma. The Commission answers the Board's certified question and decides that Sequoyah Fuels Corporation's front-end waste may be considered byproduct material under section 11e(2) of the Atomic Energy Act.

UMTRCA: INTERPRETATION

STATUTORY CONSTRUCTION

UMTRCA nowhere says that it covers only traditional mills. Indeed, neither UMTRCA nor its legislative history explicitly addressed what constitutes milling. The statute used the term ''processing,'' not ''milling''; thus, Congress left this subject open for interpretation.

ATOMIC ENERGY ACT: SECTION 11e(2)

STATUTORY CONSTRUCTION

Because the SFC front-end process is functionally the same as purification processes at conventional uranium mills, waste from that process qualifies as

*Re-served November 24, 2003.

section 11e(2) byproduct material. Location of the activity (i.e., at a conventional ''mill'' or a conversion facility) simply doesn't matter under UMTRCA. The section 11e(2) definition is adaptable to situations other than conventional uranium milling.

ATOMIC ENERGY ACT: SECTION 11e(2)

STATUTORY CONSTRUCTION

The 11e(2) definition focuses on the nature of the processing that generated the radioactive wastes, not the characteristics of the wastes. Differences in concentrations of the waste constituents are not relevant.

ATOMIC ENERGY ACT: SECTION 11e(2)

STATUTORY CONSTRUCTION

Congress wrote section 11e(2) with room to construe it pragmatically. The language in section 11e(2) about processing ore for its source material content was specifically intended to broaden the definition of byproduct material to facilitate control of wastes that resulted from processing *within the nuclear fuel cycle* and which ultimately may be left orphaned.

MEMORANDUM AND ORDER

This case arises from the application of Sequoyah Fuels Corporation (SFC) for a materials license amendment to possess byproduct material at its site near Gore, Oklahoma. In response to the Presiding Officer's certified question, the Commission decides today that SFC's front-end waste may be considered byproduct material under section 11e(2) of the Atomic Energy Act (AEA), a provision added to the AEA in 1978 as part of the Uranium Mill Tailings Radiation Control Act (UMTRCA).[1]

I. BACKGROUND

We recently described the background of the Presiding Officer's certified question to the Commission in some detail.[2] From 1970 until 1992, SFC's

[1] *See* 42 U.S.C. § 2014e(2).

[2] *See* CLI-03-6, 57 NRC 547, 548-49 (2003).

Oklahoma facility produced uranium hexafluoride (UF_6) from yellowcake (a mixture of solid uranium oxides, primarily U_3O_8) and, for a portion of this time, the facility converted depleted uranium hexafluoride to uranium tetrafluoride. Various phases of SFC's operations produced radioactive waste streams. In 2001, in conjunction with decommissioning planning, SFC requested that the NRC determine if some of the waste from SFC's yellowcake solvent extraction process could be classified as byproduct material under section 11e(2) of the AEA. The term ''byproduct material'' means

> (1) any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material, and (2) the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.[3]

Only the second part — AEA § 11e(2) — of the definition is at issue in this proceeding.

In 2002, the NRC Staff recommended that the Commission approve SFC's request to classify its waste as 11e(2) material.[4] Subsequently, the Commission issued a Staff Requirements Memorandum (SRM) responding to the Staff's recommendation. The Commission SRM concluded that most of the waste at the SFC site could be classified as 11e(2) byproduct material.

Following the Commission's SRM, SFC requested a materials license amendment to possess 11e(2) byproduct material. After publication of notice of the amendment request and opportunity for a hearing under 10 C.F.R. Part 2, Subpart L,[5] the State of Oklahoma, among others, submitted hearing requests.

The Presiding Officer concluded that the viability of Oklahoma's claim rests on whether the SRM precludes Oklahoma from ''insisting . . . that the waste on the Licensee's site in question does not qualify as section 11e(2) byproduct material.''[6] Because Oklahoma's position (in effect) challenges the Commission's SRM, the Presiding Officer certified two preliminary questions to the Commission. The Presiding Officer asked the Commission to decide whether Oklahoma could raise the 11e(2) issue in this adjudication and, if so, whether the Presiding Officer or the Commission itself should originally consider the issue.

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[3] AEA § 11e, 42 U.S.C. § 2014e(2).

[4] *See* SECY-02-0095, ''Applicability of Section 11e.(2) of the Atomic Energy Act to Material at the Sequoyah Fuels Corporation Uranium Conversion Facility'' (June 4, 2002).

[5] *See* 67 Fed. Reg. 69,048 (Nov. 14, 2002).

[6] *See* LBP-03-7, 57 NRC 287, 288 (2003).

We agreed to decide the classification issue ourselves.[7] We asked the parties to brief directly to us the question whether, in view of initial processing of yellowcake[8] at the SFC uranium conversion facility, any portion of the SFC waste can be considered as 11e(2) byproduct material. The 11e(2) classification has implications for the type of decommissioning plan necessary to remediate the Gore site and terminate SFC's license.[9]

In briefs addressing the certified question, SFC and the NRC Staff argue that SFC's preliminary solvent extraction process is merely a continuation of uranium milling; thus, they maintain, the waste materials generated in this step are 11e(2) byproduct material. Oklahoma argues, among other things,[10] that SFC was never licensed or operated as a uranium mill and that classifying SFC's waste as 11e(2) byproduct material is contrary to UMTRCA.[11] We agree with the NRC Staff and SFC, for the reasons stated below.

II. DISCUSSION

To answer the Presiding Officer's certified question, we must examine the relevant portion of the section 11e(2) definition; i.e., we must ask whether SFC produced wastes by the concentration of uranium from ''ore processed primarily for its source material content.'' We find that section 11e(2) covers the SFC material. Section 11e(2) provides that the waste output of the processing of uranium ore is byproduct material. While nominally part of the fuel production phase of the nuclear fuel cycle, SFC's front-end process is functionally the same

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[7] *See* CLI-03-6, 57 NRC 547.

[8] ''Initial processing'' at SFC includes the steps from solvent extraction of the feedstock to formation of uranium trioxide, UO_3.

[9] The standards for decommissioning inactive mill tailings sites (i.e., 11e(2) sites) allow, in effect, ''restricted use'' decommissioning of the stabilized tailings disposal cell under government ownership. *See* 10 C.F.R. Part 40, Appendix A. Until December 11, 2002, when the NRC Staff issued SFC's requested license amendment, the SFC license contained a condition for ''unrestricted use'' decommissioning of the entire site, as Oklahoma prefers. The unrestricted use standard will govern if Oklahoma successfully contests the SFC license amendment. *See* 10 C.F.R. § 20.1402.

Separate adjudicatory proceedings are underway with respect to SFC's proposed site decommissioning plan, its groundwater corrective action plan, and its groundwater monitoring plan under Part 40, Appendix A. *See* Docket Numbers 40-8027-MLA-6, 40-8027-MLA-7, and 40-8027-MLA-8, respectively. Oklahoma has already established standing with respect to the site decommissioning plan that SFC proposed earlier for the Gore, Oklahoma, facility under the 10 C.F.R. Part 20 regulations. *See* CLI-01-2, 53 NRC 9 (2001).

[10] Because Oklahoma's other arguments are not relevant to the certified question, we leave them for the Presiding Officer's consideration.

[11] *See* 42 U.S.C. §§ 7901 *et seq.*

as uranium milling — i.e., it uses solvent extraction to refine uranium ore. Hence, the waste from that process can legitimately be characterized as 11e(2) material.

Before examining in further detail how the SFC material fits into the nuclear fuel cycle and into the section 11e(2) definition, we turn first to the legislative history of UMTRCA.

A. History of UMTRCA

Classification of the SFC wastes is best understood in the context of UMTRCA and its legislative history. UMTRCA had two general goals — to remediate contamination at inactive mill sites and to provide for NRC regulation of mill tailings at active sites.[12] To accomplish these goals, it was necessary to broaden the definition of ''byproduct material'' within NRC authority. NRC's then Chairman Joseph M. Hendrie explained to Congress that the NRC lacked the requisite authority over mill tailings:

> [The NRC] at the time did not have direct regulatory control over uranium mill tailings. The tailings themselves were not source material and did not fall into any other category of NRC-licensable material. The NRC exercised some control over tailings, but only indirectly as part of the Commission's licensing of ongoing milling operations. Once operations ceased, however, the NRC had no further jurisdiction over tailings. This resulted in dozens of abandoned or ''orphaned'' mill tailings piles.[13]

Because prior to UMTRCA mill tailings were unregulated, Congress expanded the 11e definition to bring this additional waste within the definition of byproduct material. The new 11e(2) definition labeled mill tailings — earlier regarded as waste materials — as byproduct material. NRC Chairman Hendrie testified in favor of the broadened definition, as it would make mill tailings licensable under the AEA.[14] The change also prevented dual regulation by the NRC and the

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[12] Mill tailings are potentially hazardous because they are a source of uranium daughter isotopes, especially radon, a radioactive gas with a short half-life. The tailings pile can release radon into the atmosphere, where it and its radioactive daughter isotopes can be inhaled. *See Uranium Mill Tailings Radiation Control Act of 1978: Hearings on H.R. 11698, H.R. 12229, H.R. 12938, H.R. 12535, H.R. 13049, and H.R. 13650* (''UMTRCA Hearings'') *Before the Subcomm. on Energy and Power of the House Comm. on Interstate and Foreign Commerce,* 95th Cong. 227 (1978) (statement of Victor Gilinsky, NRC Commissioner).

[13] *International Uranium (USA) Corp.* (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 16 (2000).

[14] *See* UMTRCA Hearings at 341 (statement of Joseph M. Hendrie, Chairman, NRC).

Environmental Protection Agency by removing mill tailings from coverage under the Resource Conservation and Recovery Act.[15]

At the same time, Chairman Hendrie did not want to extend NRC's authority to areas outside the nuclear fuel cycle, such as wastes from phosphate ore processing.[16] Thus, he urged Congress to modify its definition of byproduct material. In his testimony before Congress, Chairman Hendrie faulted the byproduct material definition included in H.R. 13382, one of the House bills that preceded enactment of UMTRCA, and proposed that the definition of byproduct material be expanded to include tailings produced by extraction of uranium or thorium from *any ore processed primarily for its source material content.*[17] The italicized phrase was to replace the phrase, ''source material as defined in Section 11z.(2).''[18] The definition thus ''focused upon whether the process generating the wastes was uranium milling within the course of the nuclear fuel cycle''[19] and sought, in effect, to expand ''the types of materials that properly could be classified as byproduct material.''[20] Chairman Hendrie's proposed broad definition of byproduct material received congressional approval and appeared in the final version of UMTRCA.

We turn now to the stages of the nuclear fuel cycle, SFC's role in it, and the relationship of the section 11e(2) definition to the fuel cycle. As we explain below, we find the SFC material — i.e., the residue of SFC's front-end processing of uranium ore — to fit within the section 11e(2) definition of byproduct material.

B. The Nuclear Fuel Cycle and SFC's Role

The nuclear fuel cycle consists of uranium recovery (mining and milling); fuel production (conversion of uranium concentrates to uranium hexafluoride, uranium enrichment, and nuclear fuel fabrication); use in nuclear reactors; reprocessing irradiated fuel; and management and disposal of high-level radioactive wastes.[21] Only uranium milling and conversion are relevant here.

So-called nuclear fuel facilities are divided into three groups: those that convert yellowcake into uranium hexafluoride, those that enrich the uranium hexafluoride in the fissionable ^{235}U isotope, and those that fabricate enriched uranium into

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[15] *See id.* at 342-43.

[16] *See id.* at 342. These wastes contain small amounts of uranium.

[17] *See id.* at 343.

[18] *See id.* at 345. Source material includes uranium that has not been enriched in the ^{235}U isotope and ores that contain by weight 0.05% or more of uranium or thorium. *See* 10 C.F.R. § 40.4.

[19] *International Uranium,* CLI-00-1, 51 NRC at 18.

[20] *Id.* at 16.

[21] *See Georgia Power Co.* (Alvin W. Vogtle Nuclear Plant, Units 1 and 2), LBP-77-2, 5 NRC 261, 289 (1977). At this time, reprocessing spent fuel does not occur in the United States.

nuclear reactor fuel. SFC has been licensed to possess source material and to convert it to uranium hexafluoride.[22]

When it was an active facility, SFC produced uranium hexafluoride from uranium ore concentrate, predominantly yellowcake. SFC initially dissolved the yellowcake feedstock in an aqueous solution of nitric acid, forming uranyl nitrate, and purified it in a solvent extraction process. After purification, SFC concentrated the uranyl nitrate and thermally denitrated it to uranium trioxide, UO_3. In the next several process steps, SFC converted the uranium trioxide to uranium hexafluoride, the final product.[23]

Because the solvent extraction process is similar to a process used at conventional uranium mills, SFC and the NRC Staff maintain that SFC's front-end processes — from yellowcake to uranium trioxide — are a continuation of the milling process. Thus, they say, wastes from the solvent extraction process are 11e(2) byproduct material. As UMTRCA's definition of byproduct material is process-oriented, the location of the milling, according to SFC and the NRC Staff, is inconsequential. The NRC Staff points out that UMTRCA does not address location at all.[24] SFC reasons that its front-end wastes literally satisfy all three prongs of the section 11e(2) definition because: (1) they are produced by extraction or concentration of uranium, (2) the feedstock material is ore, and (3) the primary purpose of processing the ore is to recover source material. SFC states that UMTRCA is not limited to previously unregulated materials (i.e., tailings that would still be ''orphaned'' without UMTRCA), and that Congress, by not identifying which types of facilities conducted milling, left it to the Commission to make that determination.[25]

Oklahoma, on the other hand, finds SFC's interpretation flawed. According to Oklahoma, SFC did not mill uranium ore to produce yellowcake; rather, it conducted a multistaged conversion sequence to form chemically distinct products. Oklahoma maintains that using solvent extraction as one of the steps does not mean that SFC conducted a milling operation and does not justify decommissioning the entire facility as a uranium mill.[26] Rather, the front-end steps are requirements of the complete UF_6 conversion process. Oklahoma also states that the radiological characteristics of the SFC wastes are different from

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[22] SFC also converted depleted uranium hexafluoride to uranium tetrafluoride, a process not relevant to the certified question.

[23] *See* Sequoyah Fuels Corp., *Reclamation Plan Sequoyah Facility,* Appendix D at 4-7 (Jan. 2003).

[24] *See generally* ''NRC Staff's Position on Classification of a Portion of Sequoyah Fuels Corporation's Waste as § 11e.(2) Byproduct Material'' (July 3, 2003).

[25] *See generally* ''Sequoyah Fuels Corporation's Brief on Whether Any Portion of the SFC Waste Can Be Considered as 11E.(2) Byproduct Material'' (July 3, 2003).

[26] *See generally* ''State of Oklahoma's Brief in Opposition to Reclassification of Sequoyah Fuels Corporation's Waste as Mill Tailings'' (July 8, 2003).

conventional uranium mill tailings. Further, Oklahoma asserts that the SFC facility was never licensed or operated as a uranium mill — it was always considered a uranium conversion facility and has been regulated under a source materials license. Oklahoma believes that, to justify classification of SFC's wastes as mill tailings, SFC has resorted to ''tortured interpretations of individual words in UMTRCA'' that are contrary to the unambiguous intent of Congress.[27]

The key question here is whether yellowcake may be considered ''ore'' under section 11e(2).[28] Uranium milling involves treatment (physical and/or chemical) of ore. A traditional mill starts with mined uranium ore and refines it into yellowcake. A uranium conversion fuel facility starts with yellowcake and processes it into uranium hexafluoride. Because the NRC has broadly defined ''ore'' to include ''any . . . matter from which source material is extracted,''[29] ore actually has a place in both the (traditional) milling and the conversion segments of the fuel cycle. Until recently, the NRC had considered the yellowcake arriving at SFC's front door to be refined *source material,* for by that point the yellowcake — at least formally — had left the uranium recovery portion of the fuel cycle and started on the chemical pathway to uranium hexafluoride.[30] But ''yellowcake'' is an indefinite term. At the SFC facility, the yellowcake functioned precisely as ore during its treatment with acid and subsequent solvent extraction — i.e., it was a mixture of uranium compounds and impurities being transformed (or ''milled'') into a more usable form. Neither UMTRCA nor its legislative history explicitly addressed what constitutes milling. Indeed, the statute used the term ''processing,'' not ''milling''; thus, Congress left this subject open for interpretation.

Because of the similarity of the SFC front-end process to purification processes at conventional uranium mills, we find that labeling the SFC process as ''milling'' comports with both the letter of the section 11e(2) definition and with physical and chemical reality. We see no reason to perpetuate the traditional — and

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[27] *Id.* at 17.

[28] The SFC material indisputably fits the other two elements of the section 11e(2) definition. SFC generated the wastes in question ''by the extraction or concentration of uranium.'' And the Commission has previously determined that the phrase '' 'processed primarily for its source material content' most logically refers to the actual act of *processing* for uranium or thorium within the course of the nuclear fuel cycle, and does not bear upon any other underlying or 'hidden' issues that might be driving the overall transaction.'' *International Uranium,* CLI-00-1, 51 NRC at 15-16 (emphasis in original). The only remaining element of the section 11e(2) definition is the term ''ore.''

[29] NRC Regulatory Issues Summary 2000-23, ''Recent Changes to Uranium Recovery Policy'' (Nov. 30, 2000) (''RIS'').

[30] Oklahoma notes that one federal court has stated that ''[t]he final product of the milling process for uranium ore is uranium-rich 'yellowcake,' U_3O_8.'' *American Mining Congress v. Thomas,* 772 F.2d 617, 621 (10th Cir. 1985). We find this statement unpersuasive, for the divisions of the nuclear fuel cycle were not at issue in the cited case.

somewhat artificial — divisions of the nuclear fuel cycle or to rely solely on the name given to a facility to determine where an activity fits in the cycle. As the NRC Staff has argued, location of the activity (i.e., at a conventional ''mill'' or a conversion facility) simply doesn't matter under UMTRCA. The Commission agrees that ''the section 11e(2) definition focuses on the *process* that generated the radioactive wastes — the removal of uranium or thorium as part of the nuclear fuel cycle.''[31] The definition is thus adaptable to situations other than conventional uranium milling. Indeed, the only federal court to address the byproduct material definition directly stated that the definition ''adopted by Congress was designed to extend the NRC's regulatory authority over *all* wastes resulting from the extraction or concentration of source materials in the course of the nuclear fuel cycle.''[32]

It is true, as Oklahoma points out, that the goal of SFC's front-end processing was to achieve a specific chemical form of uranium needed to match the requirements of the hexafluoride conversion process. But so long as the processing identified in section 11e(2) actually took place, the NRC need not examine the motivation or ultimate goals behind the process.[33] The Commission need not draw a line between milling and conversion at SFC's front door, for we recognize that purification of uranium ore has a role in two overlapping stages of the uranium fuel cycle.

That the wastes arising from processing at SFC have different concentrations of the radioactive constituents than the wastes typically produced at uranium mills does not alter the Commission's view. These differences are expected because the feed material has different characteristics. The 11e(2) definition focuses on the nature of the processing, not the characteristics of the wastes. Thus, the differences in concentrations do not bear on the classification issue we consider here.[34]

We are mindful that our initial approval of the NRC Staff's recommendation to reclassify SFC's front-end wastes as 11e(2) byproduct material was quite recent (just last year). Previously, the NRC had considered SFC's waste to be source material. But our view of the nuclear fuel cycle must be flexible enough to

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[31] *International Uranium,* CLI-00-1, 51 NRC at 18, *citing Kerr-McGee Chemical Corp. v. NRC,* 903 F.2d 1, 7 (D.C. Cir. 1990) (emphasis in original).

[32] *Kerr-McGee Chemical Corp.* at 7 (emphasis in original).

[33] *See generally International Uranium,* CLI-00-1, 51 NRC 9. We have also stated that purely economic factors should not determine how radioactive material is defined. *See id.* at 20. Further, the Commission has rejected ''ultimate business motivations as irrelevant to the section 11e(2) definition.'' *Id.* at 24 n.8. ''UMTRCA does not require the NRC to ensure that no other incentives lie behind the licensee's interest in processing material for uranium.'' *Id.* at 18.

[34] It does indicate, however, that the NRC Staff will have to consider the specific characteristics of the wastes in imposing regulatory requirements to assure protection of public health and safety.

accommodate practical reality. The fact is, there is no meaningful safety-related distinction between what SFC does at the front end of its conversion process and what ordinary uranium mills do. Both work with uranium ore to refine it into more useful forms. As the SFC situation illustrates, ore is both a product (of mining and traditional milling) and a feedstock (for further processing into UF_6). Thus, because SFC extracted and concentrated uranium ore for its source material content, SFC's waste qualifies as section 11e(2) byproduct material under the specific terms of that provision.

The intent of UMTRCA supports today's decision. UMTRCA nowhere says that it covers only traditional mills.[35] Nor does it say that source material cannot also be 11e(2) material.[36] It is true, as Oklahoma stresses, that UMTRCA's chief purpose was to protect the public health and safety by closing a regulatory ''gap'' — unregulated mill tailings at defunct uranium mills — and that particular gap does not exist here. But this is not decisive.[37] UMTRCA's byproduct material definition was, *by design,* broadly phrased, and it readily encompasses the SFC material.[38] Both the Commission and the federal courts have previously held that the section 11e(2) definition is not confined to the sites that originally concerned Congress.[39]

Congress wrote section 11e(2) with room to construe it pragmatically. The language in section 11e(2) about processing ore for its source material content was specifically intended to broaden the definition of byproduct material to facilitate control of wastes that resulted from processing *within the nuclear fuel cycle* and which ultimately may be left orphaned.[40] Like conventional mill tailings at sites lacking funds for decommissioning, the SFC wastes are a legacy problem. The reclassification of SFC's waste harmonizes with the AEA, for the reclassification serves a practical purpose and protects the public health and safety. Absent reclassification, the Commission has significant concerns about funding to stabilize and decommission the SFC site in light of the dire financial

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[35] *In situ* leach facilities, e.g., are covered under 10 C.F.R. Part 40, Appendix A.

[36] Indeed, uranium mills, like conversion facilities, operate under source material licenses. Ore that has received minimal processing — such as crushing and sorting by size — is source material. The resultant tailings are 11e(2) material, but they also retain their character as ''ore'' if they receive additional processing to recover uranium.

[37] *See New York v. Federal Energy Regulatory Commission,* 535 U.S. 1, 21, 122 S. Ct. 1012, 1024 (2002) ([w]here Congress used broad language in the Federal Power Act of 1935, evidence of a specific ''cataly[st]'' for enactment of the statute ''does not define the outer limits of the statute's coverage'').

[38] *See PGA Tour, Inc. v. Martin,* 532 U.S. 661, 689, 121 S. Ct. 1879, 1897 (2002) (''[T]he fact that a statute can be applied in situations not expressly anticipated by Congress does not demonstrate ambiguity. It demonstrates breadth.'') (citation and internal quotation marks omitted).

[39] *See International Uranium,* CLI-00-1, 51 NRC 9, and *Kerr-McGee Chemical Corp.*

[40] *See International Uranium,* CLI-00-1, 51 NRC at 16-19.

status of the Licensee. The reclassification simplifies SFC's decommissioning task and makes it more likely that decommissioning will take place reasonably soon because UMTRCA *mandates* a long-term government custodian, either the State of Oklahoma or the U.S. Department of Energy, for stabilized inactive 11e(2) mill tailings piles.[41]

Accordingly, we decide today that SFC's front-end waste may be considered byproduct material under section 11e(2) of the AEA. The Commission appreciates Oklahoma's articulate and thought-provoking contribution of its views and concerns regarding reclassification of SFC's waste.

III. CONCLUSION

For the foregoing reasons, the Commission (1) *answers* the Presiding Officer's certified question and states that SFC's front-end waste can be considered as AEA § 11e(2) byproduct material, and (2) *remands* this matter to the Presiding Officer for action consistent with this decision.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 13th day of November 2003.

[41] *See* UMTRCA § 202, 42 U.S.C. § 2111. By contrast, we note that under section 151 of the Nuclear Waste Policy Act the Department of Energy has *discretion* whether to accept title to and custody of AEA wastes other than 11e(2) byproduct material. *See* 42 U.S.C. § 10171.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 72-22-ISFSI**

PRIVATE FUEL STORAGE, L.L.C.
(Independent Spent Fuel Storage Installation) **November 13, 2003**

ADJUDICATORY PROCEEDINGS: RULES OF PRACTICE

The Commission has undoubted power to modify its procedural rules on a case-by-case basis. *See National Whistleblower Center v. Nuclear Regulatory Commission,* 208 F.3d 256, 262 (D.C. Cir. 2000).

ORDER

With this Order, the Commission takes the unusual step, in the interest of efficiency, of calling for appeals of Board decisions that would otherwise be considered interlocutory orders appealable only at the conclusion of the underlying ASLBP proceeding. We do so to expedite the final stages of a licensing process that has dragged on for a number of years. As we said a few months ago, ''the time has now come to make every effort to bring the proceeding to closure soon and to decide whether to issue a license or not.''[1]

Private Fuel Storage, L.L.C., submitted its application for a license to build an independent spent fuel storage installation in Utah in 1997, nearly 7 years ago. In response to NRC's notice of opportunity for a hearing, interested parties submitted

[1] CLI-03-5, 57 NRC 279, 285 (2003).

dozens of contentions that, through outright rejection, summary disposition, or resolution after a hearing, have been winnowed down to a few.

Only three issues remain before the Board: the consequences of an aircraft crash into the facility, an issue that is awaiting further hearings; certain financial matters, which await resolution after various motions for reconsideration or clarification; and an issue concerning the impacts of building a rail spur, which awaits decision after an already-completed hearing. By far the largest task left before the Board is holding a hearing and rendering a decision on aircraft crash consequences. The aircraft consequences hearing is currently stalled while the Applicant, PFS, conducts further technical analyses at the NRC Staff's request. Our decision today does not apply to the Board's upcoming decisions in these pending matters.

But a series of prior interlocutory Board orders, many of which are now years old, may well present issues that the parties plan ultimately to bring before the Commission on petitions for appellate review. These include, for example, Board orders rejecting or summarily disposing of contentions without hearing. Ordinarily, of course, absent special circumstances, parties may not appeal interlocutory board rulings before the end of the case.[2] We have repeatedly so held in this very case.[3] Now, though, because only a few discrete matters remain pending before the Board and because the parties have already had considerable time to review the Board's various interlocutory rulings, we direct all parties to seek immediate appellate review of any interlocutory orders they wish to challenge.[4] No such appeals will be entertained later.

The Commission has undoubted power to modify its procedural rules on a case-by-case basis.[5] As we suggested above, special circumstances warrant a departure here from our usual doctrine disfavoring interlocutory appeals. The Commission has previously expressed its strong interest in expediting this case, and directed the Board to take all steps reasonable and necessary to resolve the pending hearing matters.[6] By permitting immediate petitions for appellate review of interlocutory board orders, the Commission can do its part to speed this proceeding to its resolution. In addition, a two-tiered approach to review —

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[2] *See Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-7, 55 NRC 205, 213 (2002) (citing cases).

[3] *See, e.g.,* CLI-01-1, 53 NRC 1 (2001).

[4] We remind parties of our guidance 3 years ago that interlocutory board orders linked to subsequent partial initial decisions should be appealed in connection with the pertinent partial initial decision. *See* CLI-00-24, 52 NRC 351 (2000). We expect to adhere to that guidance in considering future petitions for appellate review in this case.

[5] *See National Whistleblower Center v. Nuclear Regulatory Commission,* 208 F.3d 256, 262 (D.C. Cir. 2000).

[6] *See* CLI-03-5, 57 NRC at 284-85.

interlocutory appeals now and appeals from partial initial decisions later — has the advantage of ensuring that any important issue that may have been raised by interlocutory orders receives due consideration and is not lost in the process of reviewing the substantial and complex Board decisions still anticipated in this case.

We therefore direct the parties to file petitions for review of any interlocutory Board orders (other than those relating to matters still awaiting final Board decision) they wish to challenge. The petitions shall not exceed 20 pages, must be filed within 21 days after issuance of this Order, and otherwise must conform to our rules of practice, including an explanation of why particular issues meet the standards for Commission review.[7] Answers, not to exceed 20 pages, should be filed within 14 days after receipt of any petition for review. To expedite response deadlines and Commission consideration, petitions and answers shall be filed with the Commission, and served on all counsel, by electronic means or, alternatively, by overnight delivery service.

The Commission will thereafter issue an order calling for further briefs on any issue warranting review under the criteria listed at 10 C.F.R. § 2.786(b)(4).

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 13th day of November 2003.

[7] *See* 10 C.F.R. § 2.786.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alan S. Rosenthal, Presiding Officer
Richard F. Cole, Special Assistant

In the Matter of **Docket No. 40-7580-MLA-3**
(ASLBP No. 04-816-01-MLA)

FANSTEEL, INC.
(Muskogee, Oklahoma Facility) **November 3, 2003**

In this Subpart L proceeding, the Presiding Officer grants the request of the State of Oklahoma for a hearing in connection with the application of Fansteel, Inc. for a materials license amendment relating to a decommissioning plan for its Muskogee site.

RULES OF PRACTICE: INFORMAL HEARINGS (REQUESTS FOR HEARING)

The grant of a timely hearing request in a Subpart L proceeding is dependent upon a determination by the presiding officer that the requester has both (1) met the ''judicial standards for standing'' to raise the matters presented in the request; and (2) specified at least one area of concern ''germane to the subject matter of the proceeding.'' *See* 10 C.F.R. § 2.1205(e) and (h).

RULES OF PRACTICE: INFORMAL HEARINGS (STANDING)

A State has standing in circumstances where, in its sovereign capacity, it has both the responsibility to protect the welfare of its citizenry and a proprietary interest in the natural resources within its boundaries, and where it sufficiently

identifies the injury-in-fact that assertedly will be suffered by the interests that it has a duty to protect should the Licensee's proposed decommissioning plan receive NRC approval.

RULES OF PRACTICE: INFORMAL HEARINGS (AREAS OF CONCERN)

To satisfy the modest pleading burden imposed upon the hearing requester in a Subpart L proceeding, all that a requester need do is ''state [its] areas of concern with enough specificity so that the Presiding Officer may determine whether the concerns are truly relevant — i.e., 'germane' — to the license amendment at issue.'' *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 16 (2001). *See also* Statement of Considerations: ''Informal Hearing Procedures for Materials Licensing Adjudications,'' 54 Fed. Reg. 8269, 8272 (1998). The areas of concern are intended to provide the minimal information necessary to ensure that the hearing requester desires to litigate issues germane to the licensing proceeding and therefore should be allowed to take the additional step of making a full written presentation pursuant to 10 C.F.R. § 2.1233. *See* CLI-01-2, 53 NRC at 16; 54 Fed. Reg. at 8723.

RULES OF PRACTICE: INFORMAL HEARINGS (REQUESTS FOR HEARING)

Although a hearing request must be granted once a requester has established its standing to intervene and has provided enough information to establish that one of its areas of concern is germane to the proceeding, this is not the end of the presiding officer's task, because 10 C.F.R. § 2.1205(h) requires that the presiding officer nonetheless determine the acceptability for adjudication of the remaining assigned concerns.

MEMORANDUM AND ORDER
(Granting Hearing Request)

In hand is the September 10, 2003, request of the State of Oklahoma for a hearing in connection with the application of Fansteel, Inc. (Licensee) for an amendment to its materials license (No. SMB-911). Issued under 10 C.F.R. Part 40, that license authorizes the possession at the Licensee's site near Muskogee, Oklahoma, of source material consisting of up to 400 tons of natural uranium and thorium in any form. The sought amendment relates to a decommissioning plan

for the Muskogee site that had been submitted by the Licensee last January and thereafter supplemented.

The hearing request was filed in response to a notice of opportunity for hearing published in the *Federal Register* on August 11, 2003. 68 Fed. Reg. 47,621. In submissions dated September 22 and October 14, respectively, the Licensee and the NRC Staff (Staff) have responded to the request. Additionally, as authorized by my October 14 order (unpublished), in an October 24 submission Oklahoma has replied to those filings to the extent that they opposed its position.

The adjudication of matters relating to materials licenses such as the one here in issue is governed by the informal hearing provisions set forth in Subpart L of the Commission's Rules of Practice, 10 C.F.R. § 2.1201 *et seq.* In a nutshell, the grant of a timely hearing request in a Subpart L proceeding is dependent upon a determination by the presiding officer that the requester has both (1) met the ''judicial standards for standing'' to raise the matters presented in the request; and (2) specified at least one area of concern ''germane to the subject matter of the proceeding.'' *See* 10 C.F.R. § 2.1205(e) and (h).

There is no dispute among the parties that Oklahoma has satisfied the standing requirement. Rather, the disagreement is confined to whether the six areas of concern specified in the State's hearing request are germane to the subject matter of the proceeding. The Licensee maintains that none of them so qualify. Supporting the grant of the hearing request, the Staff concludes that, with limited exceptions, each of the expressed concerns satisfies that requirement.

For the reasons that follow, Judge Cole and I find ourselves in essential agreement with the Staff's analysis. Accordingly, the hearing request is granted and, in accord with 10 C.F.R. § 2.1231, the Staff will now be required to provide within thirty (30) days a hearing file to the presiding officer, the special assistant, and the other parties to the proceeding.

I. BACKGROUND

A. The materials license in question was issued in 1967 and, under its aegis, until 1989 the Licensee operated a rare metal extraction facility at its Muskogee site. As a result of those operations, the site apparently now contains contaminated material in the form of uranium, thorium, radium, and other decay-chain products in process equipment and buildings, soil, sludge, and groundwater.

Although the papers filed by the parties in connection with the hearing request provide a great deal of detail regarding events transpiring subsequent to the cessation of the operation of the facility in 1989, for present purposes most of those events are of no moment. It is enough here to refer to the salient recitations in the August 11, 2003, *Federal Register* notice that triggered Oklahoma's hearing request.

As stated in the notice (68 Fed. Reg. at 47,622), on July 24, 2003, the Licensee had submitted a request that its materials license be amended to approve a site decommissioning plan that had been presented to the Staff on January 14, 2003, and later amended by a May 8 letter. The plan called for the removal of the radiological contamination from buildings, equipment, soil, and groundwater so as to meet the unrestricted release requirements of the Radiological Criteria for License Termination rule found in 10 C.F.R. Part 20, Subpart E (62 Fed. Reg. 39,088 (1997)).

The *Federal Register* notice went on to state that, before issuance of the requested license amendment, the Staff would (a) make all of the findings required by the Atomic Energy Act of 1954, as amended, and applicable NRC regulations; and (b) document those findings in a Safety Evaluation Report, an Environmental Assessment, and in the license amendment itself. Finally, the notice provided both an opportunity to provide comments and the opportunity to request a hearing, of which Oklahoma has taken advantage. *Ibid.*

B. In the hearing request, Oklahoma bases its claim of judicial standing on several factors. Among other things, it points to its ''duty to protect the general welfare of its citizens, and therefore [its] interest in protecting the health, safety, and welfare of its citizens, many of whom live, work, travel, or recreate at or near the Fansteel facility.'' Hearing Request at 10. In addition, Oklahoma asserts a ''proprietary interest in its air, lands, waters, wildlife, and other natural resources, which it has the right to protect.'' *Id.* at 11.

Still further, according to the hearing request, Oklahoma will suffer injury-in-fact if the proposed site decommissioning plan is approved. On that score, several claims are advanced, including that the plan ''wholly fails to adequately fund the remediation of the Fansteel Facility.'' As a consequence, the hearing request asserts, ''contamination to the soil and groundwater [at the facility] will continue to contaminate the property and contaminate waters owned by Oklahoma whose citizens rely upon the Arkansas Rivers for recreational purposes, and as a source of water for consumption, irrigation, and livestock.'' *Id.* at 16-17 (footnote omitted).

Turning then to Oklahoma's areas of concern, the hearing request lists six separate ones. The first is that the site characterization provided by the Licensee is incomplete and fails to address current conditions and, therefore, does not meet the requirements of 10 C.F.R. § 40.42(g). In that connection, the request points to several specific site condition changes that purportedly are not taken into account by the proposed site decommissioning plan. *Id.* at 22-24.

Second, that plan is said to fail adequately to address the remediation of groundwater for radiological and nonradiological contaminants. In that regard, the hearing request maintains, *inter alia,* that the Licensee has not discussed the remediation of the groundwater with the State's Department of Environmental Quality, the instrumentality with jurisdiction over Oklahoma's waters. As

Oklahoma sees it, ''[n]o commitment has been made to [it] to assure that its waters will be remediated to allow for the consumption, irrigation or recreational uses in . . . this area considering the natural resources and topography as well as agricultural efforts in this vicinity.'' *Id.* at 24-25.

The third specified area of concern pertains to the cost estimates for remediation that have been furnished by the Licensee. The hearing request would have it that those estimates are both insufficient and not supported by the site decommissioning plan. *Id.* at 26-27.

Fourth, Oklahoma asserts that the Licensee has failed to establish that the criteria for unrestricted release set forth in 10 C.F.R. § 20.1402 will be met. More specifically, the Licensee is said to have improperly invoked an industrial use scenario in an endeavor to avoid the need to consider all the sources, exposure routes, and pathways in conducting its dose modeling. Oklahoma believes such a scenario is inapposite here because some recreational use of the area surrounding the site is to be expected. *Id.* at 27-29.

As a fifth area of concern, Oklahoma provides numerous examples of what it regards as insufficient or inconsistent data precluding a proper evaluation of the decommissioning plan. *Id.* at 29-36. And, finally, the hearing request claims that several key components of the plan have yet to be submitted. *Id.* at 36-38.

C. As previously stated, the Licensee acknowledges Oklahoma's standing[1] but maintains that none of the assigned areas of concern is germane to the subject matter of the proceeding, with the consequence that the hearing request should be denied. Although agreeing that Oklahoma has standing, the NRC Staff differs significantly with the Licensee on the matter of the sufficiency of the advanced areas of concern. In the Staff's view, all but portions of the second and sixth concerns meet the prescribed test for acceptance and, accordingly, the hearing request should be granted.

II. ANALYSIS

A. There is little room for doubt that, as recognized by the Licensee and Staff alike, Oklahoma has demonstrated the requisite standing to seek a hearing for the purpose of challenging aspects of the site decommissioning plan that has been put forth by the Licensee. As the hearing request stresses, in its sovereign capacity the State has both the responsibility to protect the welfare of its citizenry and a proprietary interest in the natural resources within its boundaries. And the request sufficiently identifies the injury-in-fact that assertedly will be suffered

[1] The acknowledgment is appropriately confined to any presented claims that come within the zone of State interests protected by either the Atomic Energy Act of 1954, as amended, or the National Environmental Policy Act of 1969. Answer at 9.

by the interests that it has a duty to protect should the proposed plan receive NRC approval. It is thus not surprising that, as the Licensee notes (Answer at 9), Oklahoma has been found to have standing in other proceedings concerning proposed decommissioning plans, including an earlier proposed plan for this facility. *See Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), LBP-99-46, 50 NRC 386, 394-95 (1999), *aff'd,* CLI-01-2, 53 NRC 9 (2001); *Fansteel, Inc.* (Muskogee, Oklahoma Facility), LBP-99-47, 50 NRC 409, 413-14 (1999). *See also Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 202 (2003).

B. It follows that the grant of the Oklahoma hearing request hinges upon whether the request sets forth at least one area of concern that is ''germane to the subject matter of the proceeding'' within the meaning of 10 C.F.R. § 2.1205(h). Once again, it is on this question that the Licensee parts company with Oklahoma and the Staff.

1. As the Commission has recognized, the pleading burden imposed upon the hearing requester in a Subpart L proceeding is ''modest.'' All that it need do is ''state [its] areas of concern with enough specificity so that the Presiding Officer may determine whether the concerns are truly relevant — i.e., 'germane' — to the license amendment at issue.'' *Sequoyah Fuels Corp.,* CLI-01-2, *supra,* 53 NRC at 16. *See also* Statement of Considerations: ''Informal Hearing Procedures for Materials Licensing Adjudications,'' 54 Fed. Reg. 8269, 8272 (1998). In short, as the Staff puts it, the ''areas of concern are intended to provide the minimal information necessary to ensure that the hearing requester desires to litigate issues germane to the licensing proceeding and therefore should be allowed to take the additional step of making a full written presentation pursuant to 10 C.F.R. § 2.1233.'' Answer at 6, *citing* both CLI-01-2, 53 NRC at 16 and the Statement of Considerations, 54 Fed. Reg. at 8723.

The very limited threshold obligation imposed upon the hearing requester in an ''informal'' Subpart L proceeding is to be contrasted with the much greater burden that must be assumed by one seeking to intervene in a reactor licensing proceeding subject to the provisions of Subpart G of the Rules of Practice, 10 C.F.R. § 2.700 *et seq.* The Subpart G petitioner for intervention is required to supplement the petition with a list of the contentions that are sought to be litigated. With respect to each such contention, the petitioner must illuminate the bases of the contention, disclose the alleged facts or expert opinion upon which the contention is founded with reference to the specific sources and documents relied upon, and provide sufficient information to show the existence of a genuine dispute on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2).

It is, of course, not difficult to apprehend the reason for this marked difference in respective obligations. In the case of the grant of a Subpart G intervention petition, the parties must then go through what might well prove to be extensive discovery followed by, in the absence of a grant of summary disposition on all

issues to one party or another, a full evidentiary hearing including the examination and cross-examination of witnesses. In a Subpart L proceeding, however, discovery is explicitly proscribed. 10 C.F.R. § 2.1231(d). Further, the parties are left to make out their cases in written presentations, 10 C.F.R. § 2.1233. Whether those presentations are then followed by oral presentations (not involving party cross-examination) is entirely within the presiding officer's discretion. 10 C.F.R. § 2.1235. In short, there is a wide disparity between the nature of the two types of proceedings — and most particularly between the burdens placed upon other parties such as the applicant and Staff once an intervention petition or hearing request is granted. That disparity undoubtedly undergirded the Commission's decision to make the threshold obligation in one considerably less than that in the other.[2]

2. Now turning to whether at least one of the areas of concern specified by Oklahoma meets the section 2.705(h) relevancy test, Judge Cole and I are entirely persuaded that this question requires an affirmative answer. Indeed, it appears that, in large measure, the Licensee's contrary conclusion rests upon an attempt to impose a requirement that the hearing request provide a firm basis for each expressed concern — a requirement that, to repeat, is applicable to contentions advanced in Subpart G formal adjudicatory proceedings but has no role in informal materials licensing proceedings conducted under Subpart L.

This is clearly demonstrated by an examination of the Licensee's response to the first area of concern — the asserted failure of the site characterization in the decommissioning plan to meet regulatory requirements because it relies significantly on outdated data. On the face of it, there would appear to be little room for doubt that the concern has the necessary relevancy to the acceptability of the plan and, hence, to the outcome of the license amendment application based upon the plan. The Licensee insists, however, that the concern should be rejected because, as it sees it, Oklahoma has not provided a sufficient basis for its various ingredients.

Thus, for example, Oklahoma had noted in presenting this concern that among the significant changes not reflected in the data employed in the site decommissioning plan were the ''construction of the [F]rench drain system, a

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[2] *See also* the discussion in the very recent decision in *CFC Logistics, Inc.,* LBP-03-20, 58 NRC 311, 323-28 (2003).

It might additionally be noted that hearing requests filed in Subpart M proceedings involving license transfer applications likewise face a substantially greater initial burden than that imposed upon a Subpart L hearing request. *See* 10 C.F.R. § 2.1306. Indeed, this is made clear by the basis assigned by the Commission for its very recent rejection of Oklahoma's request (filed contemporaneously with the hearing request in issue here) seeking a hearing on the proposal to transfer materials license No. SMB-911 from this Licensee to another entity. *See Fansteel, Inc.,* CLI-03-13, *supra,* 58 NRC at 202-05.

substantial pilot project to reprocess waste that may have incurred additional releases, and a major hydrofluoric acid release that resulted in the hospitalization of two workers.'' Hearing Request at 22. In response, the Licensee asserts, *inter alia,* that the State has failed to articulate ''*at all* — let alone with any degree of specificity or authority — the manner in which construction of the French drain affected the site and rendered the existing site characterization inaccurate.'' Answer at 11 (emphasis in the original). Had the Licensee been addressing a contention submitted in a Subpart G proceeding, that objection might have been on target. It falls, however, far short of the mark in this proceeding. Under the scheme governing materials license adjudication, its written presentation will be the occasion for Oklahoma to provide the basis for its claim that the failure to account for the French drain in the site characterization constituted a fatal flaw in the decommissioning plan. If it fails to establish that the claim has substance, that will be the end of the matter.

3. In sum, Judge Cole and I concur in the Staff's conclusion (Answer at 6) that ''Oklahoma has provided enough information to establish that its [first specified] concern is germane to this proceeding [and] should be admitted.'' Although the hearing request must therefore be granted, this is not the end of our task, however, because 10 C.F.R. § 2.1205(h) requires that the presiding officer nonetheless determine the acceptability for adjudication of the remaining assigned concerns.

There is little room for doubt that, as the Staff agrees, the relevancy test is satisfied with regard to the entirety of the first, third, fourth, and fifth assigned concerns. With respect to the second concern, however, the Staff correctly notes (Answer at 7) that the NRC does not regulate the nonradiological material to which that concern alludes. Accordingly, the Staff maintains, that portion of the concern is beyond the scope of this proceeding. *Ibid.* We concur. In its rejoinder (Reply at 9), Oklahoma concedes the lack of Commission jurisdiction over the chemical contaminants present on the Muskogee site but points out that, because the site decommissioning plan ''purports to simultaneously address [those] contaminants with the radiological ones,'' it ''would be extremely difficult to neatly separate the jurisdictional responsibilities of the respective governmental regulatory agencies.'' That might well be so, but the fact remains that a concern that it is outside the bounds of the NRC's authority to address can scarcely be deemed of relevance in this adjudicatory proceeding.[3]

[3] The Staff also attacks (Answer at 7) Oklahoma's claim in the second concern that the Licensee is in violation of a Regulatory Issue Summary (RIS) in proposing to extend the time period for groundwater remediation. According to the Staff, the cited RIS is inapplicable in the present circumstances. That, of course, goes to the merits of the concern, not its relevance. Should Oklahoma renew the claim in its written presentation, the Licensee and the Staff will then have ample opportunity to establish its lack of substance.

With respect to the sixth concern, the Staff might well to be correct in urging (Answer at 10-11) the exclusion of so much of the concern as calls upon it to conduct an environmental assessment to determine the necessity for the preparation of an environmental impact statement. This matter is, however, quite academic given the Staff's representation (*ibid.*) that it will take that action.

III. CONCLUSION

For the reasons stated, Oklahoma's September 10, 2003 hearing request is hereby *granted.* As mandated by 10 C.F.R. § 2.1231(a), within thirty (30) days of the date of this Order the Staff shall file a hearing file in the manner prescribed in that section.[4] Following the receipt of the hearing file, Judge Cole and I will conduct a telephone conference with the parties for the purpose of scheduling the filing and service of the written presentations called for by 10 C.F.R. § 2.1233.

If so inclined, within ten (10) days of the service of this Order the Licensee may appeal to the Commission in accordance with the provisions of 10 C.F.R. § 2.1205(o). Other parties to the proceeding may respond to the appeal within fifteen (15) days of the service of the appeal brief. Unless the Commission should direct otherwise, the filing of an appeal shall have no effect upon the further progress of the proceeding.

It is so ORDERED.

BY THE PRESIDING OFFICER[5]

Alan S. Rosenthal
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 3, 2003

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[4] The hearing file shall be chronologically arranged and prefaced with a numbered index of each item therein, which index shall reflect the name (or in lieu thereof a brief indication of the substance) and the date of each item. Each item in the hearing file shall be separated from the other hearing file items by a substantial colored sheet of paper, to which colored sheet shall be attached the numbered tab for the hearing file item that follows it. The hearing file shall be contained in binders that allow for ready inclusion of any supplements to the original material that might later be located. Any subsequent additions to the hearing file shall contain an index and be organized in the same manner as the original.

[5] Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Fansteel, (2) the State, and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
G. Paul Bollwerk, III
Dr. Richard F. Cole

In the Matter of **Docket Nos. 50-309-OM**
72-30-OM
(ASLBP No. 03-806-01-OM)

MAINE YANKEE ATOMIC POWER COMPANY
(Maine Yankee Atomic Power Station) **November 5, 2003**

In this proceeding, which involves an order requiring licensees who currently store or have near-term plans to store spent nuclear fuel in an independent spent fuel storage installation (ISFSI) under the general license provisions of 10 C.F.R. Part 72 to maintain certain security procedures in the aftermath of the September 11, 2001, terrorist attacks, the Licensing Board rules that Petitioner Friends of the Coast has shown no affected interest or concern falling within the scope of the proceeding and so dismisses its petition for a hearing.

RULES OF PRACTICE: NONTIMELY INTERVENTION PETITION(S)

Where petitioner did not request an extension until after the original deadline for filing of petitions, a petition for hearing is found to be untimely, after balancing the five-factor test of 10 C.F.R. § 2.714(a)(1) and considering the circumstances

surrounding the untimely request for extension, as well as the interests of the petitioner under *Bellotti v. NRC,* 725 F.2d 1380 (D.C. Cir. 1983).

RULES OF PRACTICE: NONTIMELY INTERVENTION PETITION(S) (GOOD CAUSE FOR DELAY)

Although an organization unrepresented by counsel should be granted some leeway, the organization's nonlawyer representative was familiar with NRC proceedings and therefore should have filed a request for extension prior to the deadline or provided good cause for the delay, which petitioner was found not to have done.

ENFORCEMENT ACTIONS: SCOPE OF PROCEEDINGS

The Board did not address traditional standing requirements because the *Bellotti* Court ruling, relating to the authority of the Commission to define the scope of certain proceedings, makes such analysis unnecessary in this proceeding.

ENFORCEMENT ACTIONS: SCOPE OF PROCEEDINGS

Under *Bellotti,* in cases in which the Commission has limited the scope of the proceeding to whether, on the basis of the matters set forth in an order, the order should be sustained, and required a licensee to adopt ''additional or better safety measures,'' *see Bellotti,* 725 F.2d at 1383, intervention is more limited than it would be in a proceeding in which ''the Commission proposes to amend a license to remove a restriction upon the licensee,'' *id.* In a proceeding such as the instant case, a petitioner who opposes issuance of the order would be ''affected'' by the order, *id.* at 1382, but one who ''wishes to litigate the need for still more safety measures . . . will be remitted to section 2.206's petition procedures,'' will not be considered to be ''affected by the proceeding as the Commission has limited it, and so [will not be] entitled to intervene,'' *id.* at 1383.

ENFORCEMENT ACTIONS: SCOPE OF PROCEEDINGS

The Licensing Board found Petitioner's argument, that it opposed issuance of the order based upon the order's allegedly lulling the public into a false sense of security, failed to show any affected interest or concerns within the scope of the proceeding that effectively distinguished it from persons ''who do not object to the Order but might seek further corrective measures,'' who under *Bellotti* are precluded from intervention.

MEMORANDUM AND ORDER
(Ruling on Petition of Friends of the Coast–Opposing Nuclear Pollution)

In this Memorandum and Order we rule on the admission of Petitioner Friends of the Coast–Opposing Nuclear Pollution (FOC) as a party to a proceeding involving an NRC Staff ''Order Modifying Licenses (Effective Immediately),'' 67 Fed. Reg. 65,150 (Oct. 23, 2002) [hereinafter Interim Compensatory Order or Order], insofar as the order applies to the Maine Yankee Atomic Power Station. The order in question, the issue date of which was October 16, 2003, requires licensees, such as Maine Yankee, who currently store or have near-term plans to store spent nuclear fuel in an independent spent fuel storage installation (ISFSI) under the general license provisions of 10 C.F.R. Part 72, to maintain certain security procedures in the aftermath of the September 11, 2001, terrorist attacks. For the reasons discussed herein, we conclude that FOC has not shown that it has any affected interest or concern that falls within the scope of this proceeding as defined by the Commission, and so dismiss its petition for a hearing.

I. BACKGROUND

As indicated above, on October 16, 2002, the Commission through the NRC Staff issued an immediately effective order to all 10 C.F.R. Part 50 licensees who currently store, or plan in the near term to store, spent fuel in a Part 72 ISFSI. 67 Fed. Reg. at 65,150. The order requires those licensees, including Maine Yankee Atomic Power Company (Maine Yankee or Licensee), to implement interim compensatory measures that supplement existing safeguards and security program requirements for nuclear facilities. These measures are specified in an ''Attachment 2'' to the order, which contains safeguards information and therefore has not been released to the public or to any persons who have not received clearance to have access to safeguards information under 10 C.F.R. § 73.21.[1]

[1] With regard to the safeguards information in Attachment 2, neither Raymond Shadis, Executive Director of FOC, nor any other person in or on behalf of FOC, has sought to receive such clearance. Mr. Shadis has, however, requested that the Board review the attachment to determine whether it would be possible to provide FOC with a redacted version of Attachment 2 that would permit FOC to address meaningfully its provisions. Tr. 40-41; Friends of the Coast–Opposing Nuclear Pollution's Amended and Supplemented Petition for a Hearing (Jan. 30, 2003), at 8-9 [hereinafter FOC 1/30/03 Petition]. As discussed in the text of this Memorandum and Order, earlier in this proceeding, prior to addressing various issues relating to security measures for handling Attachment 2 and other safeguards material, the Board did take under advisement FOC's request, as well as its admission to participate in the proceeding under *Bellotti v. NRC,* 725 F.2d 1380 (D.C. Cir. 1983). *See* Order (Confirming Matters

(Continued)

The Interim Compensatory Order allowed licensees and other adversely affected persons 20 days from its October 16 issue date either to submit answers to, or request a hearing on, the order. *Id.* at 65,151. The order further provided that, where good cause was shown, consideration would be given to extending the time to request a hearing. *Id.* In addition, the order specified that requesters other than the Licensee were to set forth with particularity the manner in which the order adversely affected their interests and address the criteria set forth in 10 C.F.R. § 2.714(d). *Id.* Finally, significantly, the order limited the scope of any hearing that might be held to consideration of ''whether this Order should be sustained.'' *Id.*

The matter was referred to the Atomic Safety and Licensing Board Panel on November 26, 2002, and on December 3, 2002, a Licensing Board was established to preside over this proceeding. *See* 67 Fed. Reg. 72,983 (Dec. 9, 2002).

In response to the Interim Compensatory Order, two entities filed requests for hearing. The State of Maine filed a petition for hearing on November 15, 2002,[2] and FOC filed its original petition on December 2, 2002,[3] after, on November 22, 2002, having filed through its nonattorney representative, Executive Director Shadis, a request for an extension of time in which to file its hearing request.[4] Early on, the Board distinguished the FOC petition and that of the State of Maine for separate handling. Specifically, during a January 16, 2003, telephone conference with all participants, the Board found that the State had in its November 15, 2002, petition made a threshold showing sufficient to raise the possibility of the need to review and address security measures relating to the safeguards material contained in Attachment 2 to the Interim Compensatory Order. Tr. 6-7; Licensing Board Order (Confirming Matters Addressed at January 16, 2003, Conference; Setting Certain Deadlines; and Scheduling February 19,

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Addressed at February 19, 2003, Conference) (Feb. 24, 2003), at 1-2 (unpublished) [hereinafter 2/24/03 Board Order].

In this regard, the progress of the proceeding insofar as it relates to these security matters is not recounted in this Memorandum and Order in detail. Rather, this part of the history of this proceeding will be addressed in the Board's Memorandum and Order, presently anticipated to be issued in the near term, ruling on the admission of the State of Maine to participate in this proceeding, as it is more directly relevant to that. The relevance of this to the matters addressed herein is simply that, until matters relating to security procedures for handling Attachment 2 were resolved and argument had been heard on the contents and implications of Attachment 2 (which involved various delays at the request of the State of Maine, Licensee Maine Yankee, and the NRC Staff), the Board did not deem it appropriate to address FOC's request regarding it.

[2] State of Maine's Petition for Hearing and Request for Commission Action (Nov. 15, 2002) [hereinafter Maine 11/15/02 Petition].

[3] Friends of the Coast–Opposing Nuclear Pollution's Petition for Hearing (Dec. 2, 2002) [hereinafter FOC 12/2/02 Petition].

[4] Request for Extension of Time (Nov. 22, 2002) [hereinafter FOC 11/22/02 Request for Extension].

2003, Conference) (Jan. 27, 2003), at 2 (unpublished) [hereinafter 1/27/03 Board Order]. On the other hand, the Board found that FOC had not made such a threshold showing, given that its petition appeared to fall within the confines of *Bellotti v. NRC,* 725 F.2d 1380 (D.C. Cir. 1983), as it relates to the scope of certain agency enforcement orders and the right of petitioners to hearings relating to such orders. *See* Tr. 33-37, 57; 1/27/03 Board Order at 2. The Board will in the near future address, in a separate memorandum and order, the State's petition and subsequent filings, some of which contain safeguards information and are thus themselves protected as such.

With regard to FOC, after resolution of an apparent failure to serve its December 2 petition on Maine Yankee via electronic transmission, the Staff and Licensee filed responses, on December 17 and 20, 2002, respectively, opposing the petition.[5] Also, during the January 16, 2003, conference, the Board permitted FOC to file an amended and supplemented petition addressing the issues of timeliness, standing, and the right to a hearing under *Bellotti,* and any need to see the safeguards material in Attachment 2 of the Staff's order. *See* 1/27/03 Order at 2. In accordance with the deadlines set by the Board during the January status conference, FOC filed its amended and supplemented petition on January 30, 2003, and Maine Yankee and the Staff filed responses thereto on February 12, 2003.[6] Thereafter, during a telephone status conference held on February 19, 2003, the Board heard argument on, and took under advisement, FOC's January 30, 2003 petition, including the issues of timeliness, standing, and its request ''that the Board, with the advice of an independent security expert, review [the safeguards material in Attachment 2 to the Interim Compensatory Order] and determine if its contents deserve blanket safeguards designation'' and whether ''a redacted version will provide enough material on which to meaningfully represent the petitioners interest.''[7] 2/24/03 Board Order at 1-2 (*quoting* FOC 1/30/03 Petition at 8-9); *see* Tr. 96-99, 113-18.

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[5] NRC Staff's Response to Friends of the Coast–Opposing Nuclear Pollution's Petition for Hearing (Dec. 17, 2002) [hereinafter Staff 12/17/02 Response]; Licensee's Answer Opposing Friend [*sic*] of the Coast's Late-Filed Petition for a Hearing (Dec. 20, 2002) [hereinafter Licensee 12/20/02 Answer].

[6] Licensee's Answer Opposing Friends of the Coast's Amended and Supplemented Petition for a Hearing (Feb. 12, 2003) [hereinafter Licensee 2/12/03 Answer]; NRC Staff's Response to Friends of the Coast–Opposing Nuclear Pollution's Amended and Supplemented Petition for a Hearing (Feb. 12, 2003) [hereinafter Staff 2/12/03 Response].

[7] Another matter addressed during the February 19, 2003, conference was access by the Staff, Licensee, and Petitioner State of Maine to the safeguards information contained in Attachment 2 to the Interim Compensatory Order. Because of the Board's earlier determination during the January 16 conference that FOC had not demonstrated a need to see the safeguards material, *see* Tr. 57, FOC did not participate in those discussions in the February 19 conference, although it was present during them. This conference was the last in which FOC participated.

On April 9, 2003, the Licensing Board was reconstituted, with the appointment of Administrative Judge Paul Bollwerk in place of Administrative Judge Thomas D. Murphy. *See* 68 Fed. Reg. 18,268 (Apr. 15, 2003). The reconstituted Board heard oral argument on the State of Maine's amended and supplemented petition for hearing in an *in camera* session held in the Licensing Board Panel's hearing room at NRC headquarters on July 11, 2003. Because the oral argument involved safeguards information related to the State of Maine's petition, and because its counsel and certain other persons from the State had been authorized to have access to such information, the State participated in this conference. FOC, however, did not seek permission to participate in the July 11 session. Nonetheless, as earlier agreed, in the context of the July argument and thereafter, the Board did consider FOC's request regarding the safeguards material.

II. ANALYSIS

A. Timeliness

Both the NRC Staff and Licensee Maine Yankee argue that FOC has been untimely in seeking to participate in this proceeding. According to the Staff and Maine Yankee, neither FOC's November 22, 2002, request for extension nor its original December 2, 2002, petition were filed within the 20-day deadline set in the order. Further, the Staff and Maine Yankee argue that FOC fails to meet at least four of the five factors required by 10 C.F.R. § 2.714(a)(1)(i)-(v) to excuse the delay. They argue to the effect that, with regard to factor (i), no good cause has been shown by FOC for its lateness; with regard to factor (ii), there are other means, through the 10 C.F.R. § 2.206 process, to protect FOC's interests; with regard to factor (iii), FOC would not contribute to the development of a sound record in this proceeding, particularly given that all issues identified by it lie outside the scope of the proceeding; and, with regard to factor (v), FOC's participation would broaden and delay this proceeding. Staff 12/17/02 Response at 1, 3, 16-21; Licensee 12/20/02 Answer at 1, 5-6; Staff 2/12/03 Response at 3-8; Licensee 2/12/03 Answer at 1, 5-8; *see* Tr. 43, 45.

FOC argues that it did not request an extension, and did not file its original petition, until after the deadline set in the Interim Compensatory Order, because it was involved in interactions with the State of Maine and determination of what appropriate course of action should be taken with regard to the order, and it did not have access to the information contained in Attachment 2 to the order. It further argues that the section 2.206 process is not an adequate substitute for hearing rights, and it therefore has no other means for protecting its interest in this proceeding; that its interests will not be represented by the State of Maine; that it is ''prepared to assist in a vigorous elucidation of the facts regarding the potential negative effects on security and safeguards embodied in [the Interim

Compensatory Order]''; and that it is ''willing to abide by any reasonable calendar set by this Board'' and that its participation thus would not broaden the issues or delay the proceeding. FOC 1/30/03 Petition at 2-7; Tr. 46-48, 87-93.

Balancing the five-factor test of section 2.714(a)(1), the Board finds FOC's original petition to be untimely. We make this ruling only after considering closely the interests asserted by FOC under the *Bellotti* case, as discussed below, as well as the circumstances surrounding its untimely request for extension of the deadline for filing its original petition.

With regard to factor (i), although FOC is not represented by counsel, and should therefore be granted some leeway as such, *see Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 201 (1998), Mr. Shadis is familiar with NRC adjudicatory proceedings, *see* Tr. 91, knew the deadline, and should have filed its request prior to that deadline, as the State of Maine did. Moreover, the interactions it describes with the State of Maine do not provide good cause for its delay. *See Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 796-97 (1977). As such, we find no good cause for FOC's late filing.

As a consequence, to gain admittance, FOC must make a particularly strong showing on the other four factors, with factors (ii) and (iv) accorded less weight. *See Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241, 244-45 (1986). In this regard, factors (ii) and (iv) do weigh in favor of Petitioner FOC to the degree that there is no other means, or participant, that would protect or represent its interests. In counterbalance, however, FOC has failed to make an appropriate showing under factor (iii), which requires that a late petition specify the ''extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.'' *See,* in this regard, *South Carolina Electric and Gas Co.* (Virgil C. Summer Nuclear Station, Unit 1), ALAB-642, 13 NRC 881, 894 (1981), *aff'd sub nom. Fairfield United Action v. NRC,* 679 F.2d 261 (D.C. Cir. 1982). Further, as to factor (v), we find this factor to be neutral, particularly given that the issues FOC seeks to raise, as discussed below, fall outside the scope of this proceeding.

Although factors (ii) and (iv) thus weigh in favor of permitting late intervention of FOC, they are not sufficient to establish the necessary showing needed to overcome the lack of good cause under factor (i), given that the more heavily weighted factor (iii) (ability to assist in developing a sound record) weighs against admission, and factor (v) (broadening issues or delaying the proceeding) is neutral in the balance. As such, we find the FOC petition to be untimely.

B. Scope of Proceeding and Interest of Petitioner

In this proceeding, we will not address directly traditional standing requirements, because we find the ruling of the Court in the *Bellotti* case, relating

to the authority of the Commission to define the scope of certain proceedings, makes such analysis unnecessary. The majority in *Bellotti* determined that the Commission has the right to define the scope of a proceeding, in instances in which the ''Commission amends a license to require additional or better safety measures.'' *Bellotti,* 725 F.2d at 1383. In such cases, the question with regard to petitioners such as FOC is whether ''the proceeding as defined by the Commission . . . affect[s] any interest of the petitioner.'' *Id.* at 1381. As the Commission itself stated in its ruling affirmed by the *Bellotti* court, ''[i]n order to be granted leave to intervene, one must demonstrate an interest affected by the action,'' and the Commission ''may limit the issues in enforcement proceedings to whether the facts as stated in the order are true and whether the remedy selected is supported by those facts.'' *Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44, 45 (1982) (citing *BPI v. Atomic Energy Commission,* 502 F.2d 424 (D.C. Cir. 1974); *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 441-42 (1980)).

Thus, in cases such as this, in which the Commission has limited the scope of the proceeding to whether, on the basis of the matters set forth in an order, the order should be sustained, and required a licensee to adopt ''additional or better safety measures,'' *see Bellotti,* 725 F.2d at 1383, intervention is more limited than it would be in, for example, a proceeding in which ''the Commission proposes to amend a license to remove a restriction upon the licensee,'' *id.* In a proceeding such as the instant case, a petitioner who opposes issuance of the order would be ''affected'' by the order, *id.* at 1382, but one who ''wishes to litigate the need for still more safety measures . . . will be remitted to section 2.206's petition procedures,'' will not be considered to be ''affected by the proceeding as the Commission has limited it, and so [will not be] entitled to intervene,'' *id.* at 1383.

Petitioner FOC argues that it does not merely wish to litigate the need for still more safety measures, but instead opposes issuance of the order at issue in this proceeding, and as such has standing under *Bellotti.* FOC 1/30/03 Petition at 7; Tr. 80. Specifically, FOC argues, among other things, that ''by issuing assurances of adequate protection without factual basis, NRC has caused harm akin to someone yelling 'There is no fire!' in a burning theater''; that ''[b]y saying that there is adequate protection when entire categories of evident vulnerability are simply not addressed, NRC not only misleads the public (in violation of NRC's charter), the agency also leaves open the door to sabotage both within and beyond the pre-9/11 design basis threat''; and that by ''confirming false assurances regarding the ability of the dry cask storage systems to withstand pre-9/11 Design Basis Threats ('DBT') and by not establishing post 9/11 DBT consistent with lessons learned from the events of 9/11 about terrorist capabilities, [the Interim Compensatory Order] yields a net loss of protection and security by lulling the licensees [*sic*] local agencies and the public into taking fewer precautionary measures than would

be appropriate if a larger, more proximate threat were realized.'' FOC 1/30/03 Petition at 7-8, 12-13.

As indicated above, FOC also asks that we examine Attachment 2 to the Interim Compensatory Order to see whether a redacted version might be supplied that would ''provide enough material on which to meaningfully represent the petitioners [*sic*] interest.'' *Id.* at 8-9. It also discusses various scenarios of possible threats and responses thereto, *id.* at 9-15, and lists ten proposed remedies that it suggests the NRC must undertake, including requiring various additional measures on the part of Maine Yankee, evaluating various threat aspects, restoring various protections that FOC asserts are no longer in effect, *id.* at 16-18, and retracting ''assurances of adequate protection until such time as the basis of those statements can be subjected to peer review and until such time as those statements are founded on fact and defensible assumptions and conclusions.'' *Id.* at 18.

The NRC Staff argues, among other things, that, ''[d]espite Petitioner's attempt to recharacterize its challenge to [the Interim Compensatory Order] in light of *Bellotti,* the Petitioner's challenge to the Order continues to question the sufficiency of the Order.'' Staff 2/12/03 Response at 9. Staff also points out that affidavits submitted by FOC ''fail to assert that the individual members will be harmed by [the order, but instead] claim that they and their financial interests will be harmed by radiological release caused through an act of sabotage.'' *Id.* at 13 (*citing* Affidavits submitted with FOC 1/30/03 Petition). In addition, the Staff asserts that ''[t]he Petitioner still fails to tie the danger of a radiological release to the sustaining of the Order,'' *id.* at 14, so as to establish an injury in fact sufficient to confer standing, and fails otherwise to demonstrate that it meets the requirements for standing, *id.* at 12-14.

Licensee Maine Yankee similarly asserts, among other things, that FOC's amended petition should be denied because it still seeks a hearing on issues outside the scope of the proceeding, as defined by the Commission according to the principles of *Bellotti,* and because it had not asserted an injury traceable to the order, which would be redressable in this proceeding. Licensee 2/12/03 Answer at 1-4.

The Board finds the arguments of the Staff and the Licensee persuasive with regard to the right of FOC to intervene in this proceeding under the authority of the *Bellotti* case. With regard to FOC's arguments to the effect that *Bellotti* does not negate its admission because it opposes issuance of the order based upon the order's allegedly lulling the public into a false sense of security, we find that FOC has failed to show any affected interest under the Interim Compensatory Order, or that any concerns it wishes to litigate are within the scope of this proceeding, such that it is in any way effectively distinguishable from persons ''who do not object to the Order but might seek further corrective measures,'' who under *Bellotti* are ''preclud[ed] from intervention.'' 725 F.2d at 1382 n.2.

Despite its statement that it opposes issuance of the order, essentially the only basis on which FOC objects to issuance of the order is — and its arguments and assertions of creating a false sense of security rest entirely on its view — that the order does not go far enough in the safety measures it imposes to protect the safety of persons and entities such as FOC. This interest is of the same nature as that asserted by Attorney General Bellotti for the State of Massachusetts and its residents. *See id.* at 1383, 1385. FOC has shown no specific basis for its assertions, and, more importantly and pertinently, relative to the scope of the proceeding as defined in the order, has not shown any affected interest or concern that would be significantly different in any way from that asserted by Attorney General Bellotti, to the effect that the need for ''still more safety measures'' should be litigated on behalf of residents (or an organization). Nor are its assertions of interests and concerns based on fear of radiological exposure resulting from terrorist sabotage within the scope of the order, as argued by the Staff.[8]

In conclusion, we find that FOC has not shown any affected interest or concern within the scope of the Interim Compensatory Order that would support its admission into this proceeding.

III. ORDER

Based upon the reasons stated above, we deny FOC's petition for a hearing, and dismiss it from this proceeding.

In accordance with the provisions of 10 C.F.R. § 2.714a(a), as it rules upon intervention petitions, this Memorandum and Order may be appealed to the Commission within 10 days after it is served.

[8] With regard to FOC's request that we examine Attachment 2 to the Interim Compensatory Order, *see* note 1 *supra,* the Board has considered the attachment and its impact in light of its arguments and those of the Staff, Licensee, and State of Maine, and has determined that this document cannot be redacted in such a way as to provide any meaningful material or method for FOC to address it. And we note in this regard, as stated above, that FOC has not sought any security clearance to gain access to the document.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

G. Paul Bollwerk, III
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 5, 2003[9]

[9] Copies of this Order were sent this date by Internet e-mail or facsimile transmission, if available, to all participants or counsel for participants.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alan S. Rosenthal, Presiding Officer
Dr. Anthony J. Baratta, Special Assistant

In the Matter of **Docket Nos. 40-8027-MLA-7**
40-8027-MLA-8
(ASLBP Nos. 04-817-02-MLA,
04-818-03-MLA)

SEQUOYAH FUELS CORPORATION
(Gore, Oklahoma Site) **November 19, 2003**

In this consolidated Subpart L proceeding concerning two materials license amendment applications submitted by Sequoyah Fuels Corporation, the Presiding Officer dismisses the hearing requests of the State of Oklahoma and the Cherokee Nation as inexcusably untimely and refers them to the NRC Staff as 10 C.F.R. § 2.206 petitions.

RULES OF PRACTICE: INFORMAL HEARINGS (TIMELINESS OF FILINGS)

The first inquiry that must be made is into whether the admitted lateness of the hearing requests stands as an insuperable barrier to their being granted. If so, it matters not whether the requests might satisfy the standing or germane area of concern requirements.

RULES OF PRACTICE: INFORMAL HEARINGS (TIMELINESS OF FILINGS)

In order to accept the hearing requests notwithstanding their untimeliness, the presiding officer must determine *both* that the delay in filing ''was excusable'' *and* that the grant of the requests ''will not result in undue prejudice or undue injury to any other participant in the proceeding, including the applicant and the NRC staff, if [as is the case here] the staff chooses . . . to participate as a party. . . .'' 10 C.F.R. § 2.1205(*l*)(1)(ii).

RULES OF PRACTICE: INFORMAL HEARINGS (TIMELINESS OF FILINGS)

If a determination favorable to the requester pursuant to 10 C.F.R. § 2.1205(*l*)(1) cannot be made, the request is to be treated as a petition for relief under 10 C.F.R. § 2.206 and referred by the presiding officer to the NRC Staff for appropriate disposition. *See* 10 C.F.R. § 2.1205(*l*)(2).

RULES OF PRACTICE: INFORMAL HEARINGS (TIMELINESS OF FILINGS)

Because it is long settled that ''notices published in the *Federal Register* are deemed to constitute notice to all, with the consequence that ignorance of the content of such a notice is not regarded as an excuse for failing to take some action called for by the notice,'' *General Electric Co.* (Vallecitos Nuclear Center), LBP-00-3, 51 NRC 49, 51 (2000), it is the responsibility of hearing requesters, particularly those familiar with Subpart L adjudicatory proceedings, to undertake seasonably to ascertain whether, and if so when, *Federal Register* notices have been or will be published.

RULES OF PRACTICE: INFORMAL HEARINGS (TIMELINESS OF FILINGS)

Although interested states and federally recognized Indian Tribes are, for some purposes, given special status insofar as Subpart L materials licensing proceedings are concerned, *see* 10 C.F.R. § 2.1211(b), that solicitude does not affect the obligation of such institutions to file their hearing requests within the period stipulated in the relevant *Federal Register* notices.

MEMORANDUM AND ORDER
(Dismissing Hearing Requests as Untimely and Referring Them to NRC Staff as 10 C.F.R. § 2.206 Petitions)

I. BACKGROUND

On August 25, 2003, the NRC Staff (Staff) published in the *Federal Register* notices of its receipt of two applications submitted by the Sequoyah Fuels Corporation (Licensee) seeking amendments to its materials license (SUB-1010). Under the authority of that license, the Licensee had operated a nuclear fuel cycle facility at a site near Gore, Oklahoma, from 1970 to 1993. The amendment applications in issue seek approval of, respectively, a proposed groundwater corrective action plan and a proposed groundwater monitoring plan (the groundwater plans). *See* 68 Fed. Reg. 51,033-34.

Each *Federal Register* notice provided an opportunity to request a hearing on the license amendment application. Any such request had to be filed within 30 days of the date of publication of the notice, i.e., by September 24, 2003. *Ibid.* Further, it had to satisfy two other requirements imposed by Subpart L of the Commission's Rules of Practice, the portion of those rules concerned with the adjudication of matters relating to materials licenses. 10 C.F.R. § 2.1201 *et seq.* In addition to establishing that the requester possessed standing to challenge the license amendment application in question, the request had to identify at least one area of concern ''germane to the subject matter of the proceeding.'' *See* 10 C.F.R. § 2.1205(e) and (h).

No hearing request was filed by the deadline prescribed in the *Federal Register* notices. On September 29, however, the State of Oklahoma filed a hearing request that embraced both license amendment applications. Three days later, the Cherokee Nation followed suit. Both requesters acknowledged that their submissions were untimely but offered explanations for their tardiness.

According to the Oklahoma Assistant Attorney General representing the State in this matter, she was away from her office between August 29 and September 25, 2003, because of the need to cope with a medical situation within her family. At the time of her departure, she was unaware of the publication 4 days earlier of the *Federal Register* notices and, during her absence, another attorney in the office had the responsibility of checking her electronic mail and mailbox for pleadings and notices related to the Gore site. Despite the asserted fact that the Attorney General's office typically receives copies of such *Federal Register* notices through the mail, in this instance none was received. A legal secretary had, however, been called upon to review the *Federal Register* on a daily basis for any notices relating to the Gore facility but apparently had failed to discover the notices in question. As a consequence, the publication of the notices did not come

to the attention of the Assistant Attorney General until after her return to her office when, on September 26, she was informed of that development by counsel for the Licensee. She thereupon commenced the preparation of the hearing request that was then filed on September 29. Oklahoma Hearing Request at 31.

For its part, the Cherokee Nation asserts that, typically, hard copies of *Federal Register* notices are provided to it but, in this instance, either none was received or the copies did not reach their intended recipient. Consequently, its Assistant General Counsel did not learn of the publication of the August 25 notices until September 29, when it received word of the publication from Oklahoma's counsel and, later in the day, a copy of the State's hearing request. The Assistant General Counsel had accessed the NRC Web site after the publication date but a keyword search for ''Sequoyah Fuels'' had not revealed the notices. Cherokee Nation Hearing Request at 25.

In their responses to the hearing requests, filed on October 9 and 27, respectively, the Licensee and Staff both maintain that, notwithstanding these explanations, the requests should be summarily dismissed as inexcusably untimely. With respect to the other requirements imposed by Subpart L, there is apparent agreement that each of the hearing requesters possesses the requisite standing.[1] Those parties take divergent positions, however, on whether one or more germane areas of concern have been advanced — the Licensee answering that question in the negative while the Staff believes that several such areas have been put forth in each of the two requests (which in large measure cover common ground).

On October 29, I entered an order (unpublished) consolidating the two proceedings and providing the hearing requesters with an opportunity to reply to the oppositions to their requests. The order specifically stated (at 3) that any reply ''shall not exceed fifteen (15) pages in length.'' On November 10, Oklahoma filed a response that, as electronically transmitted, appeared to be in excess of fifteen pages. Because, however, the paper copy mailed on the same date was within the page limit, the filing was entertained.[2]

II. ANALYSIS

Manifestly, the first inquiry that must be made is into whether the admitted lateness of the hearing requests stands as an insuperable barrier to their being granted. If so, it matters not whether the requests might satisfy the germane

[1] The Staff explicitly acknowledges the standing of both hearing requesters (Answer at 8-9). Because its answer does not appear to question their standing, the Licensee can be taken as implicitly conceding standing.

[2] No reply was received from the Cherokee Nation by the prescribed deadline.

area of concern requirement — an issue on which the Licensee and Staff are in disagreement.

In order to accept the hearing requests notwithstanding their untimeliness, I must determine *both* that the delay in filing ''was excusable'' *and* that the grant of the requests ''will not result in undue prejudice or undue injury to any other participant in the proceeding, including the applicant and the NRC staff, if [as is the case here] the staff chooses . . . to participate as a party. . . .'' 10 C.F.R. § 2.1205(*l*)(1)(ii).[3] If a determination favorable to the requester on *both* scores cannot be made, the request is to be treated as a petition for relief under 10 C.F.R. § 2.206 and referred by the presiding officer to the Staff for appropriate disposition. 10 C.F.R. § 2.1205(*l*)(2).[4]

Given that, in both instances, the tardiness was a matter of days, it seems quite apparent that it cannot be said to have occasioned consequential prejudice or injury to either the Licensee or the Staff.[5] The crucial question thus is whether the hearing requesters have provided an acceptable excuse for their failure to have met the prescribed deadline for the filing of their requests.

A.1. The necessary starting point in the consideration of Oklahoma's explanation for its tardiness must be the recognition that the State and its Office of Attorney General are scarcely strangers to Subpart L adjudicatory proceedings that are triggered by *Federal Register* notices of opportunity for hearing that customarily contain a set period for the submission of hearing requests. Indeed, there is now pending before Judge Baratta and the undersigned two hearing requests filed by Oklahoma in the past year with regard to license amendment applications pertaining to other aspects of the decommissioning of the Gore site

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[3] This provision is to be contrasted with that in 10 C.F.R. § 2.714(a)(1) concerned with the consideration of late petitions for intervention in proceedings governed by Subpart G of the Rules of Practice. The grant of such a petition hinges upon a balancing of a number of factors including, in addition to the existence of good cause for the failure to file on time, the ''availability of other means whereby the petitioner's interest will be protected'' and the ''extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.'' No balancing of such factors is called for by section 2.1205(*l*)(1). If the Subpart L hearing requester does not satisfy the two-prong test set forth in that section, it is of no moment whether it has other means of protecting its interest or whether its participation in an adjudicatory proceeding might be beneficial.

[4] Section 2.206 authorizes the filing with the NRC by ''any person'' of a request to institute a proceeding ''to modify, suspend, or revoke a license, or for any other action as may be proper.'' Although addressed in the first instance to the Commission's Executive Director for Operations, it will then be referred for appropriate action to the Director of the particular NRC office with responsibility for the subject matter of the request.

[5] To be sure, as the Staff observes (Answer at 7), a grant of the belated hearing requests might ''lead to an otherwise unnecessary hearing taking place.'' That is, however, the inevitable consequence whenever a tardy request is accepted. Accordingly, it cannot be deemed to constitute *per se* undue prejudice or injury within the meaning of section 2.1205(*l*)(1).

here-involved.[6] Still further, very recently, I granted the State's hearing request with regard to the application of another corporation for an amendment to an NRC materials license possessed by it under the authority of which it had conducted activities at a different site within Oklahoma.[7]

Apart from the fact that Oklahoma thus cannot claim a lack of familiarity with the requirements for obtaining an adjudicatory hearing in a materials licensing matter, there was every reason for the State to be aware in late August 2003 that the issuance of a *Federal Register* notice on license amendment applications involving the groundwater plans was likely imminent. Specifically, as the Staff points out in its answer to the hearing requests, Oklahoma previously had requested a hearing on a December 11, 2002 license amendment in which a deadline of June 15, 2003 had been fixed for the submission to the Staff of the groundwater plans. Even had the State failed to focus on that deadline at the time, it further appears that the Licensee furnished Oklahoma with copies of both plans when, in June, they were submitted to the Staff.

To be sure, the Staff was not then obliged to publish by a date certain the *Federal Register* notices pertaining to its receipt of the plans. Nonetheless, it surely should have occurred to the State's counsel that those notices might well surface — as they did — in the approximately 10-week interval before her departure from her office to tend to family matters over a protracted period. In the circumstances, it is therefore difficult to understand why a daily review of the *Federal Register* had not been instituted well before the August 25 publication date (a simple enough undertaking given the document's ready availability on the Internet). Further, failing such review, prudence might be thought to have dictated that counsel (or another person in her office acting on her behalf) take the step of ascertaining the status of notice publication through a telephone inquiry of Staff officials with whom Oklahoma previously had contact in connection with other matters pertaining to the Gore site. Such an inquiry would have entailed very little effort, yet would have enabled the State to file its hearing request within the prescribed period.

The assertion that Oklahoma typically receives copies of *Federal Register* notices relating to the Gore site through the mail does not assist the State's cause here. To begin with, in its answer (at 6) the Staff represents that it is unaware of any direct mailings of such notices and, while it nonetheless might well be that some have taken place, Oklahoma has offered nothing to support a claim that

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[6] *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), Docket Nos. 40-8027-MLA-5 and 40-8027-MLA-6. Although Oklahoma's hearing requests in those related proceedings were filed in December 2002 and May 2003, respectively, a ruling on them was deferred to await the Commission's decision on a certified question in MLA-5. That question has just been answered in CLI-03-15, 58 NRC 349 (2003) and further consideration of the hearing requests will now go forward.

[7] *See Fansteel, Inc.* (Muskogee, Oklahoma Facility), LBP-03-22, 58 NRC 363 (2003).

it was thus entitled to forego searching out relevant *Federal Register* notices on its own. The plain fact is that whatever might have been informally supplied to Oklahoma in the past as a courtesy could not serve to impose an obligation upon the Staff to continue the practice and therefore relieve the State of any necessity to consult the *Federal Register* itself. In this regard, it is long-settled that, as observed in one of our proceedings, ''notices published in the *Federal Register* are deemed to constitute notice to all, with the consequence that ignorance of the content of such a notice is not regarded as an excuse for failing to take some action called for by the notice.'' *General Electric Co.* (Vallecitos Nuclear Center), LBP-00-3, 51 NRC 49, 51 (2000).

The short of the matter is that it was the responsibility of Oklahoma to undertake seasonably to ascertain whether, and if so when, notices with regard to the two groundwater plans had been or would be published. Indeed, that total reliance could not appropriately be placed upon the receipt of copies of the notices by mail seems to have been recognized by counsel herself when she instructed a secretary to consult the *Federal Register* on a daily basis during her absence. Presumably, the reason that the carrying out of that instruction failed to disclose the notices was that their publication had taken place several days prior to counsel's departure — at a time when, to repeat, the *Federal Register* seemingly was not being consulted each day notwithstanding that counsel was, or at least should have been, aware that the time was ripe for notices providing an opportunity for hearing on the groundwater plans.

2. In common with Oklahoma, the Cherokee Nation is not unfamiliar with NRC adjudicatory proceedings and the *Federal Register* notices that trigger them.[8] Moreover, as the State, it is represented by experienced counsel in its Department of Justice. Yet, it offers no more compelling explanation for its tardiness than that tendered by Oklahoma.

As seen, all that the Cherokee Nation has offered is its reliance upon the asserted fact that hard copies of *Federal Register* notices had been provided to it in the past. For reasons already developed, that justification will not carry the day. In common with Oklahoma's counsel, this hearing requester's counsel can be held to an awareness of both the significance that attends upon publication of such notices and the consequences that might flow from a failure to comply with the notices' express terms. Further, also as in the case of Oklahoma, the Licensee furnished the Cherokee Nation with copies of the two groundwater plans at the time that they were submitted to the Staff. Thus, as Oklahoma, the Cherokee Nation had every reason to believe that *Federal Register* notices might be in the offing and, thus, had cause either to review the document regularly (once

[8] Most recently, the Cherokee Nation filed hearing requests in connection with the proceedings referred to in note 6, *supra,* although the request in Docket No. 4087-MLA-5 was subsequently withdrawn.

again, hardly a formidable task) or to inquire periodically of the Staff as to when publication might be expected. It, too, followed neither course.

B. For some purposes, interested states and federally recognized Indian Tribes are given special status insofar as Subpart L materials licensing proceedings are concerned. *See* 10 C.F.R. § 2.1211(b). But that solicitude does not affect the obligation of such institutions to file their hearing requests within the period stipulated in the relevant *Federal Register* notice(s). And, in requiring in unequivocal terms the rejection of untimely hearing requests in the absence of a determination that the delay ''was excusable'' (10 C.F.R. § 2.1205(*l*)(1)(i)), the Commission made no exception for requesters such as those at bar here.

This being so, a dismissal of these hearing requests is clearly mandated. The simple fact is that, as has been seen, the explanations for the tardiness advanced by counsel well versed in NRC adjudicatory proceedings falls so far short of the mark that their acceptance would make a mockery of the deadline that they failed to meet.[9]

Accordingly, both hearing requesters are now left with the remedy provided in 10 C.F.R. § 2.206. *See* p. 387, *supra.* Very possibly, that remedy will not be regarded by either requester as close to the equivalent of a Subpart L adjudicatory proceeding. But at least they will be entitled to receive a written explanation of the reasons for any determination by the Director of the responsible NRC office that no proceeding will be instituted or other action taken as a result of the concerns regarding the groundwater plans expressed in the hearing requests. That this might turn out to be all that they will obtain is attributable in the final analysis to their own lack of diligence.

Moreover, the denial of an adjudicatory hearing does not mean either that the two groundwater plans necessarily will receive NRC approval or that, if approved, the plans will not have first undergone close scrutiny as to their acceptability. The *Federal Register* notices stated expressly that the plans would be reviewed to determine their conformance with relevant agency regulations and guidance. 68 Fed. Reg. 51,033-34. In addition, the Staff will be obligated to make the findings required by the Atomic Energy Act and agency regulations, to be documented in a Technical Evaluation Report and either an Environmental Assessment or an Environmental Impact Statement. *Ibid.* There would appear to be no good reason why, in making its assessment, the Staff would be unwilling to receive and to consider any information that Oklahoma or the Cherokee Nation might deem of relevance. Indeed, one might expect a significant measure of coordination between NRC and State personnel on matters of mutual interest and concern.

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[9] This is so notwithstanding the relative brevity of the tardiness. If such a consideration were deemed of itself to make the tardiness excusable, the deadline would be stripped of real meaning.

For the reasons stated, the hearing requests of the State of Oklahoma and the Cherokee Nation are *dismissed on the ground that they were inexcusably untimely.* As required by 10 C.F.R. § 2.1205(*l*)(2), the requests will now be treated as petitions for relief under 10 C.F.R. § 2.206 and, as such, are hereby *referred* to the NRC Executive Director for Operations for appropriate disposition in accordance with the provisions of that section.

If so inclined, Oklahoma and the Cherokee Nation may appeal this result to the Commission within ten (10) days of service of this Order in the manner prescribed in 10 C.F.R. § 2.1205(o). The other parties may respond to the appeal(s) in accordance with the provisions of that section.[10]

It is so ORDERED.

BY THE PRESIDING OFFICER[11]

Alan S. Rosenthal
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 19, 2003

[10] On the possibility that an appeal will be taken to it by one or both hearing requesters, the Commission is advised that, were it not for their tardiness, both hearing requests would likely have been granted. In addition to the Licensee- and Staff-required acknowledgment regarding the standing of the requesters, each request set forth at least one germane area of concern with regard to the two groundwater plans. On that score, the Commission is referred to the discussion at pages 11-23 of the Staff's October 27, 2003 answer to the requests. In the event that the Commission were to conclude that one or both hearing requests should be granted notwithstanding their untimeliness, it will, of course, become necessary for Judge Baratta and the undersigned to make, as required by 10 C.F.R. § 2.1205(h), a specific determination regarding the acceptability of each of the assigned concerns.

[11] Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Sequoyah Fuels Corporation, (2) State of Oklahoma, (3) Cherokee Nation, and (4) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alan S. Rosenthal, Presiding Officer
Dr. Anthony J. Baratta, Special Assistant

In the Matter of **Docket No. 40-8027-MLA-5**
(ASLBP No. 03-807-01-MLA)

SEQUOYAH FUELS CORPORATION
(Gore, Oklahoma Site) **November 21, 2003**

MEMORANDUM AND ORDER
(Denying Hearing Requests)

This materials license proceeding was initiated by the filing of a notice in the *Federal Register* advising that the Commission was considering the issuance of an amendment to source materials license SUB-1010 issued to the Sequoyah Fuels Corporation (Licensee). The amendment would permit the Licensee to possess at its site near Gore, Oklahoma, byproduct material as defined in section 11e(2) of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2014(e)(2) (2000). *See* 67 Fed. Reg. 69,048 (2002).[1]

Pursuant to the opportunity for hearing provided in the notice, timely hearing requests were filed by the State of Oklahoma, Citizens' Action for Safe Energy, the Cherokee Nation, and fifteen individuals. Subsequently, the Cherokee Nation withdrew its request. The remaining requests were opposed by both the Licensee and the NRC Staff on the ground that the requesters had failed either to establish

[1] Under the aegis of the source materials license, the Licensee operated a uranium conversion facility on that site until 1993, when it advised the NRC of its intent to shut the facility down and to decommission it.

their standing to challenge the proposed action or to identify an area of concern germane to the proceeding. Under the provisions of Subpart L of the Commission's Rules of Practice governing the conduct of materials licensing proceedings, such a failure requires the denial of the hearing request. *See* 10 C.F.R. § 2.1205(e) and (h).

As the Commission has observed with regard to the standing requirement:

> To demonstrate standing in a Subpart L materials licensing case, a petitioner must meet the ''judicial standards for standing.'' 10 C.F.R. § 2.1205(h). The concept of judicial standing requires a showing of ''(1) an actual or threatened, concrete and particularized injury, that (2) is fairly traceable to the challenged action, (3) falls among the general interests protected by the Atomic Energy Act . . . , and (4) is likely to be redressed by a favorable decision.''

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 250 (2001), quoting *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13 (2001). Given the limited scope of the proposed license amendment — at bottom it would do little more of any possible significance than to classify waste material already present on the Gore site as section 11e(2) material[2] — it was quite apparent that no such showing could be made here. In the case of Oklahoma, however, a special consideration seemed to confer standing upon it to pursue one of the issues raised in its hearing request.

According to the State, the waste in question does not qualify as section 11e(2) byproduct material because it does not meet the definition of such material contained in that AEA section. For that reason, Oklahoma maintained, the license amendment application had to be denied.

As I saw it, there was little room for doubt that a state has the standing to raise, on behalf of its citizens, issues going to whether a particular course of action sought to be pursued by a corporation within its borders is consistent with the dictates of an act of Congress. In normal circumstances, then, there would have been warrant to grant at least the Oklahoma hearing request to permit a further exploration of the section 11e(2) issue.

The Licensee and the Staff called attention, however, to the fact that, just a year earlier (in July 2002), the Commission had concluded in a nonadjudicatory context (without having in hand the views of Oklahoma) that the Gore waste

[2] The license amendment application also seeks the deletion, revision, or addition of several license conditions said to conform the license to current NRC practices with respect to section 11e(2) byproduct material licenses. It does not appear, however, that any of those changes would authorize any new activities. Nor does it appear that any of them might possibly pose a concrete threat of injury to one or another of the hearing requesters.

did qualify as section 11e(2) byproduct material. That being so, my authority to consider the question anew, and possibly to reach a conclusion contrary to that arrived at by the Commission, was in substantial doubt. Given that doubt, on May 1, 2003, I certified two questions to the Commission pursuant to 10 C.F.R. § 2.1209(d): (1) should Oklahoma be permitted to raise the statutory interpretation issue in this proceeding; and (2) if so, did the Commission wish to entertain Oklahoma's assertions on the issue itself or, instead, prefer to have the presiding officer consider them in the first instance? *See* LBP-03-7, 57 NRC 287, 291-92 (2003).

In CLI-03-6, 57 NRC 547 (2003), the Commission responded to the certified questions by announcing that it would pass itself upon Oklahoma's section 11e(2) claim. It has now done so. In a decision rendered on November 13, 2003 (CLI-03-15, 58 NRC 349), it reaffirmed its prior determination that the Gore waste does come within the section 11e(2) definition. Oklahoma's assertion to the contrary was thus rejected and the proceeding remanded for further action consistent with that result.

There being no other basis upon which either Oklahoma or the other hearing requesters might be deemed to have proffered an admissible area of concern regarding the license amendment application at bar — which, to repeat, does little more than to permit the possession of the Gore waste under a classification that the Commission has decided is legally acceptable — a denial of all of the requests is plainly mandated. It need be added only that this action will have no effect upon the determination of the viability of the several hearing requests that are now pending in a companion proceeding (Docket No. 40-8027-MLA-6).

Those requests were filed in response to an April 15, 2003, *Federal Register* notice (68 Fed. Reg. 18,268) and are addressed to the Licensee's proposed reclamation plan whereby the Gore waste would be put in a disposal cell onsite designed to conform to the regulatory requirements pertaining to the disposal of section 11e(2) byproduct material. In a June 11, 2003 order (unpublished), I deferred further consideration of the requests to await the ultimate resolution of the section 11e(2) question in the present proceeding. That resolution now having taken place, the deferral is no longer in effect.

For the foregoing reasons, the hearing requests of the State of Oklahoma, Citizen's Action for Safe Energy, and the fifteen individuals are hereby *denied* and this proceeding is *terminated.* If so inclined, within ten (10) days of service of this Order, the hearing requesters may appeal this outcome to the Commission in accordance with the provisions of 10 C.F.R. § 2.1205(o). The other parties may respond to the appeal(s) in accordance with the provisions of that section.

It is so ORDERED.

BY THE PRESIDING OFFICER[3]

Alan S. Rosenthal
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 21, 2003

[3] Copies of this Memorandum and Order were sent this date by electronic transmission to counsel for Oklahoma, the Licensee, and the NRC Staff, as well as to the representative of Citizens' Action for Safe Energy. The fifteen individual hearing requesters will initially receive their copies in the form of the service made by the NRC Office of the Secretary.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
G. Paul Bollwerk, III
Dr. Richard F. Cole

In the Matter of **Docket Nos. 50-309-OM**
72-30-OM
(ASLBP No. 03-806-01-OM)

MAINE YANKEE ATOMIC POWER COMPANY
(Maine Yankee Atomic Power Station) **November 25, 2003**

In this proceeding concerning an October 2002 NRC Staff enforcement order requiring 10 C.F.R. Part 50 power reactor licensees that currently store or have near-term plans to store spent nuclear fuel in an independent spent fuel storage installation (ISFSI) under the general license provisions of 10 C.F.R. Part 72, to comply with certain security procedures in the aftermath of the September 11, 2001 terrorist attacks, the Licensing Board (by a vote of 2-1, with Young, J., dissenting) concludes that the intervention petition filed by the State of Maine challenging the order as applied to the Maine Yankee Atomic Power Station ISFSI must be denied because it seeks to litigate concerns falling outside the permissible scope of the proceeding.

ENFORCEMENT ACTIONS: SCOPE OF PROCEEDINGS

As was the case with the Staff enforcement order that was the subject of judicial review in *Bellotti v. NRC,* 725 F.2d 1380, 1382 n.2 (D.C. Cir. 1983), the Staff order at issue in this proceeding also declares that the issue for any adjudicatory

proceeding shall be ''whether this Order should be sustained,'' 65 Fed. Reg. 65,150, 65,151 (Oct. 23, 2002). Further, just as the Commission made clear in its decision that subsequently was affirmed by the federal court of appeals in *Bellotti,* under this enforcement order, the central question in the instant proceeding is whether the concerns expressed by an intervening party are or are not ''beyond the scope of the proceeding.'' *Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44, 46 (1982).

ENFORCEMENT ACTIONS: SCOPE OF PROCEEDINGS

Notwithstanding an intervening party's attempt to frame its concerns so that it nominally opposes the order so as to avoid the holding in *Bellotti,* it does not in fact oppose the substance of the order if its concerns require additional agency action that it believes are needed to make the facility safer.

ENFORCEMENT ACTIONS: SCOPE OF PROCEEDINGS (AVAILABILITY OF 10 C.F.R. § 2.206 PETITION PROCESS TO OBTAIN RELIEF)

A hearing petitioner that has concerns about an enforcement order that fall outside the scope of the proceeding does not lack a forum for making its case that the agency must take additional action. But to do so, rather than challenging the NRC Staff's enforcement order, in accord with *Bellotti, see* 725 F.2d at 1382-83, it should petition the agency for relief under 10 C.F.R. § 2.206.

MEMORANDUM AND ORDER
(Denying Intervention Petition of State of Maine)

Pending before the Licensing Board is a request for hearing filed by Petitioner State of Maine (State) in connection with an NRC Staff ''Order Modifying Licenses (Effective Immediately),'' 67 Fed. Reg. 65,150 (Oct. 23, 2002), insofar as that order applies to the Maine Yankee Atomic Power Station. The order in question, which was issued on October 16, 2002, requires Maine Yankee Atomic Power Company (MYAPC) and other 10 C.F.R. Part 50 power reactor licensees that currently store or have near-term plans to store spent nuclear fuel in an independent spent fuel storage installation (ISFSI) under the general license provisions of 10 C.F.R. Part 72, to comply with certain security procedures in the aftermath of the September 11, 2001 terrorist attacks. With its November 2002 hearing request, the State seeks to intervene to challenge the order, a request opposed by MYAPC and the Staff.

For the reasons discussed herein, we conclude that the concerns the State seeks to litigate under its hearing request fall outside the permissible scope of this proceeding. Thus we deny its intervention petition.

I. BACKGROUND

As indicated above, on October 16, 2002, the Staff issued an immediately effective order to all 10 C.F.R. Part 50 licensees who currently store, or plan in the near term to store, spent fuel in a Part 72 ISFSI. The order requires those licensees, including MYAPC, to implement interim compensatory measures (ICMs) that supplement existing safeguards and security program requirements for nuclear facilities. The particular measures are specified in Attachment 2 to the order, which contains safeguards information (SGI) and therefore has not been released to the public or to any persons who have not received clearance to have access to SGI under 10 C.F.R. § 73.21. *See* 67 Fed. Reg. at 65,150 & n.1.

The order allowed licensees and other adversely affected persons 20 days from its October 16 issue date either to submit answers to, or request a hearing on, the order. *See id.* at 65,151. The order further provided that, where good cause was shown, consideration would be given to extending the time to request a hearing. In addition, the order specified that requesters other than the Licensee were to set forth with particularity the manner in which the order adversely affected their interests and address the criteria set forth in 10 C.F.R. § 2.714(d). Finally, the order limited the scope of any hearing that might be held to consideration of ''whether this Order should be sustained.'' *Id.*

In response to the order, two entities filed requests for hearing. The State, after requesting and receiving an extension of time in which to file its hearing petition,[1] submitted its intervention request on November 15, 2002. *See* [State] Petition for Hearing and Request for Commission Action (Nov. 15, 2002). The matter was referred to the Atomic Safety and Licensing Board Panel on November 26, 2002, and on December 3, 2002, this Licensing Board was established to consider that hearing request. *See* 67 Fed. Reg. 72,983 (Dec. 9, 2002). Before this Board as well was a December 2, 2002 hearing petition filed by the Friends of the Coast–Opposing Nuclear Pollution (FOC). *See* [FOC] Petition for a Hearing (Dec. 2, 2002). Early in the proceeding, based upon the possible need to consider SGI, the Board determined that the State's petition would be handled separately from that of FOC.[2]

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[1] *See* Letter from John Monninger, Chief, Licensing Section, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards, to Randall L. Speck, State Special Counsel (Nov. 14, 2002).

[2] In this regard, during a January 16, 2003 telephone conference with all participants, the Board found that the State had in its November 15, 2002 petition made a threshold showing sufficient

(Continued)

With respect to the State's request for hearing, MYAPC and the Staff filed responses on November 25 and December 2, 2002, respectively, opposing the petition. *See* [MYAPC] Answer Opposing [State] Petition for Hearing and Request for Commission Action (Nov. 25, 2002); NRC Staff's Response to [State] Petition for Hearing and Request for Commission Action (Dec. 2, 2002). The State then filed a December 5, 2002 reply to the responses of MYAPC and the Staff, to which MYAPC filed a subsequent answer. *See* [State] Reply to [MYAPC] Answer and NRC Staff's Response to [State] Petition for Hearing and Request for Commission Action (Dec. 5, 2002); [MYAPC] Answer to Additional Assertions Made by the [State] in Support of Its Petition for Hearing and Request for Commission Action (Dec. 16, 2002).

As was noted above, *see supra* note 2, during a January 16, 2003 status conference, the Board found the State had made a threshold showing sufficient to demonstrate the need to review and address security measures relating to the SGI contained in Attachment 2 to the order. In this regard, the Board directed the State, after its counsel had an opportunity to read Attachment 2,[3] to file answers to several questions posed by the Board. *See* Tr. at 51-57, 59; 1/27/03 Board Order at 3. In a February 12, 2003 response to the Board's questions, the State clarified that it opposes the ICMs set forth in Attachment 2 as written; maintained that the order imposes additional requirements on the State; maintained that it needs to file additional pleadings in the proceeding; confirmed that it would cost the State money to implement the ICMs called for in Attachment 2; and deferred completely answering the Board's question regarding its ability to provide emergency support measures in the event of a terrorist attack until the matter could be further briefed. *See* Response to Questions Posed in January 27, 2003 Order (Feb. 12, 3003) at 1-3 [hereinafter 2/12/03 State Response].

Thereafter, as discussed during a telephone status conference held on February 19, 2003, *see* Tr. at 102-06, 109, the State, the Staff, and MYAPC filed a joint proposed order specifying the security procedures and requirements to be followed in the handling of SGI in the proceeding. *See* Joint Motion of [State],

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to demonstrate the need to review and address security measures relating to the SGI contained in Attachment 2 to the order. *See* Tr. at 6-7; Licensing Board Order (Confirming Matters Addressed at January 16, 2003, Conference; Setting Certain Deadlines; and Scheduling February 19, 2003, Conference) (Jan. 27, 2003) at 2 (unpublished) [hereinafter 1/27/03 Board Order]. On the other hand, the Board found that FOC had not made such a threshold showing. *See* Tr. at 57; 1/27/03 Board Order at 2.

Because we dealt with the FOC petition separately in a recent memorandum and order, *see* LBP-03-23, 58 NRC 372 (2003), rather than repeating here background information already covered in that issuance, from this point forward we discuss only the steps relevant to our consideration of the State's hearing request.

[3] Up until this initial status conference, the State representatives who had seen the SGI in Attachment 2 were the Governor of Maine and the State Nuclear Safety Officer. *See* 1/27/03 Board Order at 1-2.

[MYAPC] and NRC Staff for Adoption of Proposed Memorandum and Order (Protective Order and Procedures for Handling of [SGI]) (Mar. 14, 2003). The Board later approved the joint proposed memorandum and order and proposed nondisclosure affidavit on March 24, 2003. *See* Licensing Board Order (Approving Joint Proposed Memorandum and Order — Protective Order and Procedures for Handling [SGI], and Proposed Nondisclosure Affidavit) (Mar. 24, 2003) at 1-2 (unpublished). Also on March 24, the State filed a supplemental statement detailing its position on what impact the ICMs set forth in Attachment 2 would have on the State. *See* [State] Supplemental Statement on the Impact of [ICMs] (Mar. 24, 2003) [hereinafter 3/24/03 State Supplemental Statement]. The State's supplemental statement and the corresponding response filed by MYAPC were designated as SGI, while the Staff designated its response as Official Use Only (OUO) information. *See* [MYAPC] Answer to [State] Supplemental Statement on the Impact of the [ICMs] (Mar. 31, 2003) [hereinafter 3/31/03 MYAPC Answer]; NRC Staff Response to [State] Supplemental Statement on the Impact of [ICMs] (Apr. 4, 2003) [hereinafter 4/4/03 Staff Response].

On April 9, 2003, the Licensing Board was reconstituted, with the appointment of Administrative Judge Paul Bollwerk in place of Administrative Judge Thomas D. Murphy. *See* 68 Fed. Reg. 18,268 (Apr. 15, 2003). The reconstituted Board heard oral argument on the State's petition for hearing and supplemental statement on the impact of the ICMs during a July 11, 2003 in camera session held in the Licensing Board Panel's hearing room at NRC headquarters in Rockville, Maryland. Because the oral argument involved SGI, this session was closed to the public and to any persons who had not received clearance to have access to SGI under 10 C.F.R. § 73.21(c). Following the oral argument, MYAPC and the Staff submitted additional documents containing SGI relating to the implementation of the October 2002 order. *See* Letter from David R. Lewis, MYAPC Counsel, to Licensing Board (July 15, 2003); Letter from Stephen H. Lewis, Staff Counsel, to Licensing Board (Aug. 4, 2003). In an August 27, 2003 response, the State asserted that the documents submitted by the Staff and MYAPC only bolstered its claim of having standing to intervene in the proceeding. *See* Letter from Randall L. Speck, State Special Counsel, to Licensing Board (Aug. 27, 2003) at 2.

II. ANALYSIS

As the parties' filings in this proceeding make clear, the critical question is the extent to which the State's petition falls within the ambit of *Bellotti v. NRC,* 725 F.2d 1380 (D.C. Cir. 1983). In that case, the United States Court of Appeals for the District of Columbia Circuit upheld the dismissal of an intervention petition filed by the State of Massachusetts in an attempt to challenge the terms of a Staff enforcement order. As was the case with the Staff enforcement order that

was the subject of judicial review in *Bellotti, see* 725 F.2d at 1382 n.2, the Staff order here also declares that the issue for any adjudicatory proceeding shall be ''whether this Order should be sustained,'' 65 Fed. Reg. at 65,151. Further, just as the Commission made clear in its decision that subsequently was affirmed by the federal court of appeals in *Bellotti,* under this enforcement order, the central question in the instant proceeding is whether the concerns expressed by an intervening party are or are not ''beyond the scope of the proceeding.'' *Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44, 46 (1982).

As both the Commission and the court noted with respect to the hearing request that was at issue in *Bellotti,* the State of Massachusetts there indicated it did not dispute the factual basis for the Staff's enforcement order or oppose its issuance, but instead wanted additional NRC action to make the facility safer. *See Bellotti,* 725 F.2d at 1382 & n.2; *Pilgrim,* CLI-82-18, 16 NRC at 46. Here, in an attempt to avoid falling within the strictures of *Bellotti,* the State of Maine has indicated it opposes the order unless the order is modified to (1) define the time period during which the ICMs are necessary; (2) set forth what resources will be required from State and local law enforcement to implement the measures; and (3) delineate the funding mechanism that will ensure State resources are available to implement those measures. *See* State 2/12/03 Response at 2.

Notwithstanding the State's attempt to frame its concerns so that it nominally opposes the order so as to avoid the holding in *Bellotti,* the state does not in fact oppose the substance of the order.[4] Rather, the State's concerns all require additional agency action that the State believes is needed to make the facility safer.[5] In this regard, it is apparent from the State's March 24, 2003 supplemental filing that the ICMs about which the State is concerned are paragraphs B.1.a(1) & (2), B.1.b, B.3.a.1, and B.3.f. *See* 3/24/03 State Supplemental Statement at 3. It also is apparent that the concerns the State has about those provisions, as

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[4] In addition to the State's concerns about its threat response capability, to the degree the State seeks through this proceeding to obtain some sort of declaration regarding the duration of the order's interim measures, including some commitment from the Department of Energy about when it will remove spent fuel from the MYAPC ISFSI, those concerns are already addressed by the order, 67 Fed. Reg. at 65,150 (order's requirements remain in effect pending Commission notification of a significant threat environment change or some other Commission determination), or are outside the scope of the Board's authority.

[5] As was noted at the July 11, 2003 oral argument, *see* Tr. at 188-89, 229-33, the Staff's order does include a provision indicating that the measures in the order ''may not be possible or necessary at some sites, or may need to be tailored to accommodate the specific circumstances existing at the licensee's facility to achieve the intended objectives and avoid any unforeseen effect on the safe storage of spent fuel,'' 67 Fed. Reg. at 65,150. Although this language contemplates the possibility of change in the provisions of the generic order to address the circumstances at an individual facility, it apparently is intended to permit such change to the order at the behest of the Licensee, which would (if effectuated) be the subject of an additional hearing opportunity. As far as we are aware, there has been no such request or revision in this instance.

stated in its March 2003 supplement and further outlined at the July 11, 2003 oral argument, *see id.* at 3-7, Tr. at 156-58, are based on its assumptions about the need to respond to a postulated threat that goes beyond that which the Staff's October 2002 order is intended to address.[6] Indeed, as both the MYAPC and the Staff note in their responses, *see* 3/31/03 MYAPC Answer at 10-11, 4/4/03 Staff Response at 2-3; *see also* Tr. at 166-67, there already is in place an agreement under which the State is committed to respond in a manner that is wholly consistent with that required under the October 2002 order.

As noted at the July 2003 oral argument, given that the ICMs increase the level of protection at the facility, a Board ruling that did not sustain the order, i.e., vacated its terms, would make this facility less safe. *See* Tr. at 247-48. Moreover, whether and to what extent the measures the State seeks are needed to make the facility ''safer'' is essentially irrelevant here given that the threat those measures are intended to address is not the subject of the October 2002 order. That is not to say that the State lacks a forum for making its case that the agency must address its postulated threat, as well as the resource and other implications that it alleges flow from that threat. But to do so, rather than challenging the Staff's October 2002 enforcement order, in accord with *Bellotti, see* 725 F.2d at 1382-83, the State should petition the agency for relief under 10 C.F.R. § 2.206.

III. CONCLUSION

As it seeks to challenge the Staff's October 2002 order on grounds that go beyond the scope of that order, i.e., based on concerns that additional measures are necessary to make the facility safer, we find that the petition of the State of Maine is not cognizable in this proceeding and must be denied. Moreover, having previously dismissed the only other intervention petition submitted relative to the Staff's order, *see* LBP-03-23, 58 NRC 372, 381 (2003), this proceeding is terminated.

For the foregoing reasons, it is, this 25th day of November 2003, ORDERED that:

1. The November 15, 2002 intervention petition of the State of Maine is *denied.*

2. All petitions to intervene in this proceeding now having been denied, this proceeding is *terminated.*

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[6] *See* 59 Fed. Reg. 38,889, 38,892-93 (Aug. 1, 1994) (barrier system is intended to protect against vehicles gaining proximity to vital areas and should not allow a vehicle to fully penetrate it and continue to roll toward a facility).

3. In accord with the provisions of 10 C.F.R. § 2.714a(a), as it rules upon an intervention petition, this Memorandum and Order may be appealed to the Commission within 10 days after it is served.

THE ATOMIC SAFETY AND
LICENSING BOARD[7]

G. Paul Bollwerk, III
ADMINISTRATIVE JUDGE

Richard F. Cole
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 25, 2003

DISSENTING OPINION OF ADMINISTRATIVE JUDGE ANN MARSHALL YOUNG:

I find that the State of Maine has demonstrated standing to participate in a hearing on issues within the scope of this proceeding, as defined by the Commission in the October 16, 2002, Interim Compensatory Order, and under the ruling of the court in *Bellotti.* Although I would not find all parts of its arguments to support a conclusion in its favor at this point, I find that it has provided enough of a showing that certain provisions of the Interim Compensatory Order and measures adversely affect the State, in that they ''are based on the expected use of State and local law enforcement and emergency response resources'' and impose ''still further demands on State and local governments' resources'' than previously required, to demonstrate the requisite standing, within the scope of this proceeding, to participate in it. *See* [State] Petition for Hearing and Request for Commission Action (Nov. 15, 2002) at 2. In addition to demonstrating this through its original November 15, 2002, Petition for Hearing, it has also done so through its more recent pleadings, including its February 12, 2003, responses to the questions posed by the Board at the suggestion of Maine Yankee (relating among other things to certain State resource-related issues), and its March 24,

[7] Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Licensee MYAPC, (2) Petitioners State and FOC, and (3) the Staff.

2003, Supplemental Statement and subsequent arguments, both oral, on July 11, 2003, and written, in the August 27, 2003, Letter from Special Counsel Randall L. Speck.

Without question, under *Bellotti,* the Commission may define the scope of a proceeding. *Bellotti,* 725 F.2d at 1381. It does so, in the case of an order such as that at issue herein, through the wording of the order. The Commission has defined the scope of this proceeding by stating that, ''[i]f a hearing is held, the issue to be considered at such hearing shall be whether this Order should be sustained,'' 67 Fed. Reg. at 65,151 — just as, in *Bellotti,* the Commission in the order therein at issue had limited the scope of the proceeding ''to the question of whether the Order should be sustained.'' *Bellotti,* 725 F.2d at 1382; *see id.* n.2.

Under *Bellotti,* one is ''an affected person only if [one] oppose[s] issuance of the Order,'' *id.* at 1382, and one who ''wishes to litigate the need for still more safety measures . . . will be remitted to section 2.206's petition procedures,'' *id.* at 1383. Under this language, if one *does* oppose issuance of the order, but *does not* wish to litigate ''still more safety measures,'' then one is not foreclosed from demonstrating standing to participate in a proceeding such as this one, under *Bellotti.* I find the State is not so foreclosed, given that it has stated that it opposes issuance of the order, and given that, at least to an extent, it wishes to litigate *not* ''still more safety measures,'' but rather potential future additional demands on the State's resources in the implementation of the measures required by the order.

To be sure, semantic questions of how issues, queries, and responses may be framed appear to have heightened significance in a proceeding, such as this one, that falls under the analysis of the *Bellotti* court. I do not, however, find the State's responses, to questions originally suggested and articulated by Maine Yankee, *see* Tr. 29-30, 51-52, and amplified by the Staff, *see* Tr. 53-54, to be spurious, or to represent an inappropriate framing of the issues under the *Bellotti* holding. Indeed, the framing of the responses arises out of that of the questions themselves, the posing of which — again, not by the State but by Maine Yankee, assisted by the Staff — appears to have been based specifically on the *Bellotti* decision, appropriately so in my view, and, also appropriately in my view, on traditional standing concepts considered within the context of *Bellotti,* relating to the interest of the State in how, and the degree to which, its resources might be called upon in the implementation of the interim compensatory measures. I find this resource-related concern to be a legitimate issue in dispute within the scope of this proceeding, based on all the arguments and filings of the participants to date.

I take the State's responses to the questions to be what they purport to be: that, among other things, the State opposes issuance of the order in that it ''opposes the interim compensatory measures . . . unless modified [in certain particulars, including defining] . . . the resources that will be required from State and local law enforcement agencies to implement the measures, and the funding mechanism to

ensure State resources to implement those measures.'' 2/12/03 State Response at 2. In addition, the State has continued to maintain that the Order imposes requirements on the State in addition to those previously required. *See, e.g., id.*

All of the preceding circumstances illustrate, in my view, that the matters at issue herein do not involve a wish ''to litigate the need for still more safety measures,'' as the State of Massachusetts wished to do in *Bellotti,* but rather the State of Maine's claim regarding the extent to which its resources may be required in implementation of the interim compensatory measures themselves. Although the Staff and Maine Yankee argue, and the majority agrees, that the order requires no additional resources on the part of the State, I find this to be a matter in dispute, and that the State has sufficiently shown that additional resources might well be required (based among other things on an August 19, 2002, letter from former NRC Chairman Richard A. Meserve, attached to the State's December 5, 2002, Reply, referring to the need for additional resources) so as not to foreclose its participation in this proceeding. I further find, based on the State's original petition and all its subsequent pleadings and arguments, that the State has provided a sufficient showing of an interest, or ''injury in fact,'' caused by the Order and redressable by a decision in the State's favor, relating to aspects or issues that I find to be within the scope of this proceeding, to demonstrate standing to participate in the proceeding.

Regarding the matter of modification raised by the State, the order itself includes, as the majority notes, *see supra* note 5, a provision stating that it is ''recognized that some measures may not be possible or necessary at some sites, or may need to be tailored to accommodate the specific circumstances existing at the licensee's facility to achieve the intended objectives and avoid any unforeseen effect on the safe storage of spent fuel.'' 67 Fed. Reg. at 65,150. I do not see this as necessarily being limited to licensee requests for modifications. There is no explicit limitation, nor do I find an implicit one. The State's concerns plainly relate to ''specific circumstances existing at the licensee's facility,'' and would thus seem not at all to be precluded from consideration by this portion of the order.

Even if the Licensing Board has authority only to sustain or not sustain the order, and has no authority to order specific ''tailoring'' or ''modification'' itself, the following scenario would seem to fit within the *Bellotti* analysis: If, in a hearing on the issue of whether the order should be sustained in light of the State's concerns, the Board were ultimately persuaded by the State not to sustain the order, then at that point the Staff, quite possibly after consultation with Maine Yankee and the State, might recommend to the Commission a modified order with regard to the Maine Yankee facility. Indeed, the possibility that the ''development of [a] plan of action'' may ''take[ ] place outside the proceeding'' is specifically contemplated in *Bellotti.* 725 F.2d at 1382.

Whether or not a Board ruling that did not sustain the order would ''make this facility less safe,'' as discussed by the majority, *supra* p. 402, this is not the standard under *Bellotti.* The court in *Bellotti* appears rather to assume that the Commission, in *any* case that falls within the ambit of the Court's analysis, is ''amend[ing] a license to require additional or better safety measures,'' 725 F.2d at 1383 — so that any ruling, not sustaining an order that falls within the *Bellotti* holding by virtue of requiring such ''additional or better safety measures,'' could be seen as making a facility ''less safe.'' To the extent the majority's analysis suggests that any ruling with this effect is impermissible under *Bellotti,* this analysis would seem, following it to its logical conclusion, to lead to an interpretion of *Bellotti* that would preclude any ruling that did not sustain an order. This would seem clearly to be an erroneous interpretation.

It would also seem to be clear that a licensee might permissibly challenge a *Bellotti*-type order and oppose its issuance, based on resource-type issues, regardless of whether a ruling not sustaining such order ''would make the facility less safe.'' *See, e.g.,* with regard to the order at issue herein, 67 Fed. Reg. at 65,151, wherein, in addition to licensees being directed to respond to the Commission on such matters as whether they might be ''unable to comply with any of the requirements,'' they are provided an opportunity to request a hearing, and required to file an answer, which (unless it ''consents to this Order'') must ''specifically set forth the matters of fact and law on which the licensee or other person adversely affected relies and the reasons as to why the Order should not have been issued.'' *Id.* Such a challenge from a licensee might well, depending upon the facts of the individual case, result in a licensing board not sustaining an order — notwithstanding that such a ruling might make the facility ''less safe.'' Indeed, even without a hearing, the order provides that ''[t]he Director, Office of Nuclear Material Safety and Safeguards may, in writing, relax or rescind any of the above conditions upon demonstration by the licensee of good cause.'' *Id.*

Given the right under the order for a ''licensee *or other person adversely affected*'' to request a hearing, and the possibility that a licensee might successfully request, through a hearing or not, to have any conditions of the order ''relaxed'' if, for example, it is ''unable to comply'' with any part of the order, there would seem to be no grounds under *Bellotti* to foreclose admitting any other person or entity, such as a state, that makes similar claims relating to how the order adversely affects it, and on such basis opposes issuance of the order. (The viable possibility of such claims would seem to have implicitly been at least part of the basis for Maine Yankee's and the Staff's suggested questions to the State of Maine.)

I recognize the point that, to an extent, challenging *how* required measures may be implemented may overlap with, or tangentially bear aspects of, issues relating to ''still more safety measures.'' And were a hearing granted, it might ultimately be found, after such a hearing or earlier through summary disposition, that some

of the State of Maine's concerns do in effect involve such issues and, to such extent, do not warrant a ruling that the order not be sustained. But I do not find this mere possibility to be determinative herein at this point, nor do I find such a ruling to be in any way the only possible one on all the issues raised by the State.

To the contrary, I find the resource-related concerns put forth by the State of Maine to be persuasive in the context of ruling on standing and the right to a hearing under *Bellotti.* The State's concerns are fundamentally different and distinguishable from those proposed by Attorney General Bellotti on behalf of the Commonwealth of Massachusetts, which do not appear to have been significantly, if at all, related to questions of state resources, but rather addressed ''the adequacy of Boston Edison's reappraisal plan, the nature of necessary improvements at the plant and the adequacy of Boston Edison's implementation of required changes.'' *Bellotti,* 725 F.2d at 1381.

Although in its original hearing request the State of Maine raised some concerns related to the adequacy of the interim compensatory measures, it does not propose at this point to address issues such as these in this proceeding. It is centrally, if not indeed solely at this point, concerned herein with its own resources and how the order adversely affects it in this regard — an interest much more similar to grounds on which a licensee might challenge such an order, and likely be granted a hearing. This concern, over the practical effect of various provisions of the order and Attachment 2 on the State and its resources, is so manifest in all of the State's pleadings, both publicly available and protected as safeguards information, that, in my view, this aspect of the nature of the State's expressed interest herein can scarcely be disputed.

Thus, in conclusion, whether or not every argument advanced by the State might ultimately be found meritorious, I find, based on the preceding analysis, that the State has shown a proper interest sufficient to confer standing to participate in this proceeding, on issues within the scope of the proceeding as defined in the order. I therefore respectfully dissent from the majority decision.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judge:

Thomas S. Moore, Presiding Officer
Dr. Richard F. Cole, Special Assistant

In the Matter of **Docket No. 40-8968-ML-REN**
(ASLBP No. 03-809-01-ML-REN)

HYDRO RESOURCES, INC.
(Crownpoint, New Mexico) **November 26, 2003**

In ruling on the hearing request and petition to intervene in this informal Subpart L proceeding involving a request for renewal of the *in situ* leach mining source materials license of Hydro Resources, Inc., the Licensing Board rules that while the petitioner has standing, she fails to present a germane area of concern as required by 10 C.F.R. § 2.1205(h). Therefore, her hearing request and intervention petition are denied.

RULES OF PRACTICE: STANDING TO INTERVENE

To demonstrate standing as is required in a Subpart L proceeding, a petitioner must assert an actual or threatened, concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a decision favorable to the petitioner. The petitioner must also demonstrate that her interest arguably falls within the zone of interests protected by the statutes governing NRC proceedings, such as the Atomic Energy Act or the National Environmental Policy Act of 1969.

RULES OF PRACTICE: STANDING TO INTERVENE (INJURY IN FACT)

In the case of exposure to ionizing radiation such as that asserted by the Petitioner here, a small or minor unwanted exposure, even one well within regulatory limits, is sufficient to establish an injury in fact. *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 216 (2002); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 417 (2001); *see also Duke Power Co. v. Carolina Environmental Study Group, Inc.,* 438 U.S. 59, 74 (1978).

RULES OF PRACTICE: RENEWAL OF LICENSES

Much like the situation in a reactor operating license proceeding in which issues litigated in the earlier construction permit proceeding cannot be revisited absent changed circumstances, a license renewal proceeding cannot be used to relitigate issues from the initial licensing proceeding absent some material change in circumstances affecting the original determinations or some differentiation of the other sites from the one already litigated.

MEMORANDUM AND ORDER
(Ruling on Petitioner's Standing and Areas of Concern)

This informal Subpart L proceeding involves the renewal of a source materials license for Hydro Resources, Inc. (HRI) for its Crownpoint Uranium Project (CUP). The NRC approved the CUP source materials license for a 5-year term on January 5, 1998.[1] The original license, NRC Source Material License SUA-1580 (License No. SUA-1580), authorizes HRI, with certain conditions, to conduct *in situ* leach (ISL) mining at four sites in New Mexico: Sections 8 and 17 in Church Rock, New Mexico, and Unit 1 and Crownpoint, in Crownpoint, New Mexico.[2] Further, the license authorizes HRI to build and utilize a Crownpoint central processing facility.[3]

Although HRI has received a source materials license for the CUP, the related Subpart L litigation challenging HRI's original license application has not yet concluded. Due to the long-depressed uranium market, HRI has had no plans

[1] *See* 67 Fed. Reg. 77,084 (Dec. 16, 2002).

[2] *See generally Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-99-30, 50 NRC 77, 82 (1999), *aff'd on other grounds,* CLI-00-12, 52 NRC 1 (2000).

[3] *See id.*

since the beginning of the initial licensing proceeding to initiate ISL mining at any of the four sites. Church Rock Section 8 (with one exception concerning HRI's Restoration Action Plan) has been fully litigated, although the litigation of the remaining three sites covered by the license still must be resolved.[4] In that regard, it suffices to note that, after the presiding officer hearing the Church Rock Section 8 portion of the original proceeding retired, and all pending appeals were resolved, I was appointed to preside over the proceeding.[5] At the request of the parties, a settlement judge was also appointed. With the concurrence of all parties, the settlement judge requested that I hold the proceeding in abeyance so that settlement discussions could take place unencumbered by the earlier promulgated filing schedule. Settlement discussions continued on and off for over one and a half years. Ultimately, the settlement process failed to produce an agreement.

During the period of settlement negotiations, however, the Commission issued a notice of opportunity for hearing on HRI's request for renewal of Source Material License SUA-1580.[6] As the December 16, 2002 hearing notice states, the renewal application ''only requests the extension of the effective dates of the existing license, [and] all the processes authorized by the current license will remain unchanged.''[7] In response to the Commission's hearing notice, Petitioner Bonnie Benally Yazzie filed an intervention petition challenging the license renewal request.[8] Ms. Yazzie is not a party to the original HRI materials licensing

[4] The instant proceeding concerns the renewal of HRI's source material license. Relevant decisions in the initial licensing proceeding issued by the now retired Judge Peter Bloch and the Commission that comprise the history of the case include: LBP-99-1, 49 NRC 29 (1999) (waste disposal); LBP-99-9, 49 NRC 136 (1999) (National Historic Preservation Act, Native American Graves Protection and Repatriation Act, Cultural Resources Management Plan); LBP-99-10, 49 NRC 145 (1999) (performance-based licensing); LBP-99-13, 49 NRC 233 (1999) (financial assurance for decommissioning), *modified in part,* CLI-00-8, 51 NRC 227 (2000) (adding licence condition prohibiting use of license until approved financial assurance plan in place); LBP-99-18, 49 NRC 415 (1999) (technical qualifications); LBP-99-19, 49 NRC 421 (1999) (radioactive air emissions); LBP-99-30, 50 NRC 77 (1999) (groundwater, National Environmental Policy Act of 1968, environmental justice); LBP-99-40, 50 NRC 273 (1999), *rev'd,* CLI-01-4, 53 NRC 31 (2001) (lifting abeyance order and directing that proceeding resume); CLI-99-22, 50 NRC 3 (1999) (partially affirming LBP-99-1, LBP-99-9, and LBP-99-10); CLI-00-8, 51 NRC 227 (2000) (modifying LBP-99-13 in part as it pertains to financial assurance); CLI-00-12, 52 NRC 1 (2000) (denying petitions for review with respect to LBP-99-18, LBP-99-19, and groundwater issues under LBP-99-30); and CLI-01-4, 53 NRC 31 (2001) (affirming NEPA and environmental justice determinations in LBP-99-30).

[5] *See* 65 Fed. Reg. 6638 (Feb. 10, 2000).

[6] *See* 67 Fed. Reg. at 77,084.

[7] *Id.*

[8] *See* Petitioner Bonnie Benally Yazzie's Request for a Hearing and Petition for Leave to Intervene (Jan. 14, 2003) [hereinafter Yazzie Petition].

proceeding. HRI opposes Ms. Yazzie's hearing request.[9] After the hearing petition was referred to the Atomic Safety and Licensing Board Panel for appropriate action, I was designated to conduct the Subpart L informal proceeding on HRI's license renewal request.[10] The NRC Staff then timely notified me, pursuant to 10 C.F.R. § 2.1213, that it would not participate in the proceeding.[11] With the concurrence of the settlement judge in the initial licensing proceeding, I withheld any decision on the Petitioner's standing and proffered areas of concern in this license renewal proceeding so as not to interfere with the settlement negotiations in the principal licensing proceeding. As indicated, those failed negotiations are now over.

For the reasons set forth below, the request for hearing and petition to intervene are denied. Ms. Yazzie has demonstrated standing, but has not proffered any germane area of concern. As is evident from the procedural context of this proceeding, the subject matter involved here is unique: a license renewal proceeding, occurring prior to the conclusion of the adjudication of the original license, with the renewal application based on the same underlying support as that for the original license without any changed circumstances. Thus this ruling is based solely on the unique factual circumstances presented — a situation that is unlikely to occur again.

I. ANALYSIS

As set forth in the Commission's hearing notice, HRI's request for renewal of its source material license is governed by the informal hearing procedures of Subpart L.[12] In order to be admitted as a party to the proceeding under the provisions of Subpart L, a petitioner must file a timely intervention petition that demonstrates the petitioner's standing to intervene.[13] Additionally, the intervention petition must set forth at least one area of concern that is germane to the proceeding.[14]

A. Timeliness

The Commission's hearing notice on HRI's license renewal request provides that hearing requests must be filed within 30 days of the December 16, 2002,

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[9] *See* Hydro Resources, Inc.'s Response to Petitioner Bonnie Benally Yazzie's Request for a Hearing (Jan. 29, 2003) [hereinafter HRI Response].

[10] *See* 68 Fed. Reg. 6786 (Feb. 10, 2003).

[11] *See* Letter from Mitizi A. Young, Counsel for NRC Staff, to the Presiding Officer (Feb. 14, 2003).

[12] *See* 97 Fed. Reg. at 77,084.

[13] *See* 10 C.F.R. § 2.1205(h).

[14] *Id.*

Federal Register publication date of the hearing notice.[15] Ms. Yazzie filed her hearing request on January 14, 2003. Therefore, the intervention petition was timely filed.

B. Standing

To demonstrate standing as is required in a Subpart L proceeding, a petitioner must assert an actual or threatened, concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a decision favorable to the petitioner.[16] The petitioner must also demonstrate that the petitioner's interest arguably falls within the zone of interests protected by the statutes governing NRC proceedings, such as the Atomic Energy Act or the National Environmental Policy Act of 1969.[17] Finally, while the petitioner bears the burden of demonstrating standing, the intervention petition is construed in the petitioner's favor.[18]

In her petition, Ms. Yazzie asserts that she is a long-time resident of Crownpoint and lives in the Sunnyside Division, a Navajo Housing Authority Mutual Housing Community.[19] According to the Petitioner, her home is about one-half mile northeast of the proposed HRI uranium mine site and one-half mile from the proposed Crownpoint central processing plant.[20] Because of her close proximity to the proposed mining and processing operations, Ms. Yazzie states in her petition that she is concerned about air contamination and its impacts on her health as well as the air quality for the whole community.[21] The Petitioner also asserts that she uses the Crownpoint municipal water system and is concerned about uranium contamination of the community's good water and its effects on her health.[22] Further, the Petitioner states that she, along with other family members, owns an interest in 160 acres that has been leased to HRI for use in the CUP and, although she remains opposed to her family's decision to lease the land for mining, she is concerned about the effects of air emissions and water contamination on her

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[15] *See* 67 Fed. Reg. at 77,084.

[16] *See CFC Logistics, Inc.,* LBP-03-20, 58 NRC 311, 317-18 (2003).

[17] *See Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13 (2001); *Quivera Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 5-6 (1998).

[18] *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995).

[19] *See* Yazzie Petition at 2 and Exh. 1.

[20] *See id.* at 3 and Exh. 1.

[21] *See id.*

[22] *See id.*

land.[23] Finally, the Petitioner claims that HRI's mining and processing activities pose an obvious risk that she will suffer both onsite and offsite consequences if the renewal application is granted and, because her concerns deal with radon emissions, even minor radiological exposure creates an injury.[24] In this regard, the Petitioner then refers to the portion of the intervention petition setting out her areas of concern, that, *inter alia,* detail the routine and accidental radon emissions from HRI's processing operations based on Licensee's Consolidated Operations Plan (COP).[25]

In its response to Ms. Yazzie's intervention petition, HRI simply states that the Petitioner has failed to demonstrate any injury in fact.[26] HRI does not challenge the Petitioner's assertions regarding her standing with respect to causation, that a favorable decision would redress her injury, or that the claimed harm to Mr. Yazzie's health is within the zone of interests protected by the Atomic Energy Act, as amended. Thus, HRI argues that the Petitioner's assertions of harm from air and water contamination are merely ''a general concern about a *hypothetical* injury-in-fact that *might be caused* by airborne radon emissions or radon released to local ground/drinking water.''[27] Similarly, HRI argues that, because Ms. Yazzie has offered no evidence demonstrating how, and how much, radon will escape the central processing plant and reach her, or that any radon emissions will exceed allowable regulatory standards, her generalized allegations of harm are insufficient to establish standing.[28]

Contrary to HRI's arguments, the Petitioner's assertions of exposure to radon from living in close proximity to HRI's central processing facility sufficiently establish an injury in fact. The harm claimed by Ms. Yazzie is neither general nor hypothetical as HRI claims. Rather, the possible airborne release of radon from the processing facility, as noted in the petition with reference to HRI's COP, coupled with the close proximity of Ms. Yazzie's home to that facility, sufficiently demonstrates the possibility that she may receive exposure to radon. Hence, her assertions establish the threat of particularized harm to her. This particularized injury does not become a generalized, undifferentiated one simply because others in the Petitioner's community may be exposed as well. Nor is the harm asserted by Ms. Yazzie hypothetical because she has neither set forth evidence of how much radon will be released from routine operations or accidents at the plant nor specified the dose she will receive. The demonstration of an injury in fact does not require an evidentiary presentation as HRI would have it.

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[23] *See id.* at 3-4 and Exh. 1.

[24] *See id.* at 4.

[25] *See id.* at 6-8.

[26] *See* HRI Response at 5.

[27] *See id.* at 6.

[28] *See id.* at 7.

At this threshold stage of the proceeding, the Petitioner's assertion that she lives one-half mile from HRI's processing plant coupled with her reliance upon the Licensee's own Consolidated Operations Plan indicating that there will be routine, and perhaps accidental, radon releases from the facility adequately demonstrate the possibility of some radon exposure to Ms. Yazzie. In other words, at this initial stage of the proceeding, it is too early conclusively to determine that there is no reasonable possibility that the asserted harm could not occur. Moreover, to establish an injury in fact for standing, the asserted harm need not be great.[29] In the case of exposure to ionizing radiation such as that asserted by the Petitioner here, a small or minor unwanted exposure, even one well within regulatory limits, is sufficient to establish an injury in fact.[30] Hence, the Petitioner has demonstrated an injury in fact. Having made this showing, Ms. Yazzie's other claims of injury need not be considered.

Although HRI has only challenged Ms. Yazzie's assertion of an injury, her intervention petition shows that the harm to her health is fairly traceable to license renewal, as well as remediable by a decision in her favor in the renewal proceeding. Further, there can be no doubt that the asserted harm to Ms. Yazzie's health falls squarely within the zone of interests protected by the Atomic Energy Act. Accordingly, Ms. Yazzie has demonstrated her standing to intervene.

C. Germane Areas of Concern

Subpart L mandates that a petitioner, in addition to establishing standing, ''specif[y] areas of concern [that] are germane to the subject matter of the proceeding.''[31] This rule imposes a ''modest'' burden on a petitioner,[32] with a ''low'' threshold showing required.[33] A proffered area of concern is germane if it is ''truly relevant'' to the subject matter of the proceeding.[34] Areas of concern need not meet the same detailed pleading requirements applicable to contentions in formal adjudications pursuant to 10 C.F.R. § 2.714(b)(2). The statement of concerns ''need not be extensive, but . . . sufficient to establish that the issues the

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[29] *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-2, 43 NRC 61, 70, *aff'd,* CLI-96-7, 43 NRC 235, 246-48 (1996).

[30] *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 216 (2003); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 417 (2001); *see also Duke Power Co. v. Carolina Environmental Study Group,* 438 U.S. 59, 74 (1978).

[31] 10 C.F.R. § 2.1205(h).

[32] *Sequoyah Fuels Corp.,* CLI-01-2, 53 NRC at 16.

[33] *International Uranium (USA) Corp.* (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137, 142 (1998).

[34] *Sequoyah Fuels Corp.,* CLI-01-02, 53 NRC at 16.

requester wants to raise regarding the licensing action *fall generally* within the range of matters that properly are subject to challenge in such a proceeding.''[35] In her intervention petition, Ms. Yazzie asserts, in reverse order, two areas of concern: (1) the Staff's failure to take a ''hard look'' at the environmental consequences of HRI's proposal for regulating radon emissions, in contravention of NEPA and its implementing regulations; and (2) a lack of detail in the final Environmental Impact Statement (FEIS), Safety Evaluation Report (SER), and COP, and for HRI's handling of radon emissions in compliance with NRC standards.[36]

1. Staff's Failure To Take a ''Hard Look'' at Environmental Consequences

Ms. Yazzie challenges the NRC Staff's compliance with NEPA and its implementing regulations by claiming that the Staff failed to take the requisite ''hard look'' in assessing the environmental ramifications of the HRI materials license and its alternatives. According to Ms. Yazzie, the NRC Staff's NEPA review relies upon the materials submitted by HRI in its initial license application, and thus, any potential ''infirmities'' in the application material directly affect the quality and detail of the FEIS.[37] In particular, Ms. Yazzie highlights the lack of detailed information regarding the ''engineering modifications'' that HRI plans to rely upon to eliminate radon source term locations as an example of how the NRC Staff was lax in fulfilling its NEPA duties.[38]

In challenging HRI's original materials license, the intervenors in the initial licensing proceeding asserted a number of arguments regarding the sufficiency of the FEIS.[39] The Presiding Officer rejected these arguments and found that the FEIS was adequate. Specifically, the Presiding Officer addressed HRI's proposal to regulate radon emissions and stated that he was ''satisfied that the FEIS has given adequate consideration to possible radioactive air emissions.''[40] Even though the Presiding Officer's decision applied only to the Church Rock Section 8 site, the FEIS covers all the proposed mining sites. Ms. Yazzie's petition,

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[35] *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-02-10, 55 NRC 251, 257 (2002) (*quoting* Final Rule, "Informal Hearing Procedures for Materials Licensing Adjudications," 54 Fed. Reg. 8269, 8271-72 (Feb. 28, 1989)).

[36] *See* Yazzie Petition at 7-10.

[37] *Id.* at 9.

[38] *Id.* at 9-10.

[39] *See* LBP-99-30, 50 NRC at 110-21.

[40] *See id.* at 114, *aff'd,* CLI-01-4, 53 NRC 31 (2001) (approving NEPA analysis discussed in LBP-99-30); *see* LBP-99-19, 49 NRC at 424-27, *aff'd,* CLI-00-12, 52 NRC 1, 3-4 (2000) (refusing to review judicial determinations as to technical aspects of case).

however, has not differentiated Section 8 from the other sites nor detailed any changed circumstances casting doubt on the earlier ruling. In fact, both Ms. Yazzie and HRI acknowledge that the same information is being used to support both the original license and license renewal — only the effective dates of the license would change. Therefore, the Presiding Officer has already addressed Ms. Yazzie's NEPA challenge and her petition provides no basis to question the earlier determinations in this renewal proceeding. Much like the situation in a reactor operating license proceeding in which issues litigated in the earlier construction permit proceeding cannot be revisited absent changed circumstances,[41] a license renewal proceeding cannot be used to relitigate issues from the initial licensing proceeding absent some material change in circumstances affecting the original determinations or some differentiation of the other sites from the one already litigated. Because Ms. Yazzie has failed to establish any reason that would warrant reexamination of the FEIS, her area of concern regarding the FEIS is beyond the scope of this renewal proceeding and therefore not germane.

2. HRI's Proposal for Controlling Radon Emissions

The other area of concern asserted by Ms. Yazzie encompasses the FEIS, SER, and the COP. In a Subpart L proceeding, an intervenor must state her area of concern with enough specificity so that a presiding officer can determine whether the concern is ''truly relevant'' or ''germane'' to the proceeding.[42] All of the arguments Ms. Yazzie raises in connection with a lack of detail in the FEIS were already addressed by the Presiding Officer in the original license proceeding with regard to Section 8. In LBP-99-19, and LBP-99-30, the Presiding Officer rejected the intervenor's arguments about a lack of detail in the FEIS's discussion of airborne emissions and found that the total radiation dose ceilings in 10 C.F.R. Part 20 would not be exceeded for the Church Rock Section 8 site. Furthermore, in LBP-99-30, the Presiding Officer found that the FEIS is ''thorough and correct'' as it pertains to groundwater.[43] Although Ms. Yazzie raises a concern from the FEIS's failure to address HRI's compliance with the appropriate drinking water standards, the Presiding Officer, in LBP-99-30, concluded that neither the EPA's program to protect drinking water (40 C.F.R. § 144.12) nor the Safe Drinking Water Act will be violated by the CUP.[44] The Presiding Officer also concluded that there will be adequate restoration of the sites after HRI completes ISL mining,

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[41] *See Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-785, 20 NRC 848, 870-71 (1984).

[42] *Sequoyah Fuels Corp.,* CLI-01-02, 53 NRC at 16.

[43] LBP-99-30, 50 NRC at 109, *aff'd,* CLI-00-12, 52 NRC 1, 3-4 (2000) (concluding fact finding of Presiding Officer reasonable).

[44] *Id.* at 108-09.

based upon HRI's demonstration elements.[45] In sum, because Ms. Yazzie has not shown any changed circumstances or other bases to differentiate the other sites from the Section 8 site, her arguments relative to a perceived failure of the FEIS already have been litigated and may not be relitigated in the renewal proceeding. Accordingly, in these circumstances this asserted area of concern is beyond the scope of the proceeding and not germane.

Ms. Yazzie also challenges the adequacy of the SER in addressing the ability of HRI to maintain compliance with NRC standards with respect to radon emissions. In determining whether the design features for the airborne effluent control ensure adequate safety protection, the SER looks to the FEIS and reiterates the description detailed in the FEIS.[46] Thus, any argument about the adequacy of the SER, in effect, is an argument against the adequacy of the FEIS. Because the FEIS is the underlying basis for the SER with regards to radon gas emissions, the matter remains necessarily precluded absent a showing that there have been changed circumstances or another basis to distinguish the Section 8 site from the other sites. Without such a showing to bring the concern within the scope of the renewal proceeding, Ms. Yazzie again fails to assert a germane area of concern.

The final portion of her area of concern stems from the inadequacies of the COP in substantiating HRI's means for controlling radon emissions. Ms. Yazzie's reliance on the COP for ''detailed information . . . about measures for controlling [radon] emissions,'' is misplaced.[47] HRI developed and submitted the COP for the Crownpoint Project in response to a Staff request for additional information. Because the licensing procedure had lasted several years[48] and included additional proposed mine locations along with subsequent filings regarding those additions, the Staff apparently was concerned that the information HRI provided had become ''disjointed.''[49] As HRI states, ''[t]he purpose of [the COP] is to extract, and combine the information in previously submitted documents into one consolidated specification report. The document will contain all the specifications, and representations which have been articulated to NRC in the past under one cover.''[50] In other words, the COP is a summary of previously submitted application material, created to assist the Staff in reviewing HRI's application for a license renewal. The document contains no new information, and does not, nor is it meant to, substantively stand alone in this proceeding. Therefore, Ms. Yazzie's attack on the substance of the COP is inappropriate because the COP merely recapitulates

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[45] *Id.* at 102-03.

[46] Safety Evaluation Report at 14 (Dec. 5, 1997).

[47] Yazzie Petition at 7.

[48] The initial documents filed with the NRC by HRI were submitted in 1987. Ten years later, in 1997, the NRC asked HRI to submit the COP.

[49] Consolidated Operations Plan, Rev. 2.0 at 2 (Aug. 15, 1997).

[50] *Id.*

the many documents previously submitted by HRI. To the extent Ms. Yazzie has areas of concern regarding radon emissions addressed in the documents on which the COP is based, she is nonetheless precluded from asserting these claims in this license renewal proceeding because, as already indicated, those concerns are beyond the scope of the renewal proceeding. As in the case of the FEIS and the SER, Ms. Yazzie has failed to demonstrate any changed circumstances or other reasons to differentiate the other sites from the Section 8 site. Hence, in the unique circumstances of this license renewal proceeding, she has failed to raise a germane area of concern.

II. CONCLUSION

For the foregoing reasons, Ms. Yazzie has demonstrated her standing, but has failed to proffer one germane area of concern. Accordingly, Ms. Yazzie's request for a hearing and petition to intervene is denied. Therefore, this proceeding is terminated.

Pursuant to 10 C.F.R. § 2.1205(o), the Petitioner may appeal the denial of her petition to the Commission within ten (10) days of the service of this Memorandum and Order. In accordance with that section, ''[a]n appeal may be taken by filing and serving upon all parties a statement that succinctly sets out, with supporting argument, the errors alleged.''[51]

It is so ORDERED.

BY THE PRESIDING OFFICER[52]

Thomas S. Moore, Presiding Officer
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 26, 2003

[51] 10 C.F.R. § 2.1205(o).

[52] Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Applicant Hydro Resources, Inc.; (2) Petitioner Bonnie Benally Yazzie; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket Nos. 50-369-LR**
50-370-LR
50-413-LR
50-414-LR

DUKE ENERGY CORPORATION
(McGuire Nuclear Station, Units 1 and 2;
Catawba Nuclear Station, Units 1
and 2) **December 9, 2003**

The Commission denies a petition for review of an Atomic Safety and Licensing Board decision that rejected the Intervenor's sole contention.

REGULATIONS: INTERPRETATION (10 C.F.R. § 2.714a)

Where an already-admitted intervenor seeks Commission consideration of a Board dismissal of the last remaining contention in the case, our rules do not specify whether the proper vehicle is an appeal under 10 C.F.R. § 2.714a or a petition for review under 10 C.F.R. § 2.786. The Commission construes section 2.714a to apply only to disappointed intervenors for intervention, not to already-admitted ''intervenors.'' By its own terms, section 2.714a authorizes appeals only by ''petitioners'' (or license applicants), not by ''intervenors.'' By contrast, section 2.786 authorizes ''a party'' — e.g., an admitted intervenor like BREDL — to file petitions for review.

RULES OF PRACTICE: CONTENTIONS (TIMELINESS OF CLAIMS)

Petitioners must raise and specify at the outset their objections to a license application.

RULES OF PRACTICE: CONTENTIONS (TIMELINESS OF CLAIMS)

The mere fact that the NRC Staff, in a Request for Additional Information (RAI), may ask for clarification of particular information in Environmental Reports — in fact, a common practice — does not serve to ''restart the clock'' on the timeliness of claims that could have been identified and raised earlier.

RULES OF PRACTICE: CONTENTIONS

Nuclear Regulatory Commission contention standards require petitioners to plead specific grievances, not simply to provide general ''notice pleadings.''

RULES OF PRACTICE: CONTENTIONS

Petitioners have an obligation to examine the application and publicly available information, and to set forth their claims at the earliest possible moment.

NEPA: SEVERE ACCIDENT MITIGATION ANALYSIS

Under NEPA, mitigation (and the SAMA issue is one of mitigation) need only be discussed in ''sufficient detail to ensure that environmental consequences [of the proposed action] have been fairly evaluated.'' *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 352 (1989). NEPA demands no ''fully developed plan'' or ''detailed explanation of specific measures which *will* be employed'' to mitigate adverse environmental effects. *Id.* at 353.

MEMORANDUM AND ORDER

Duke Energy Corporation (''Duke'') seeks to renew its operating licenses for the McGuire Nuclear Station, Units 1 and 2, and the Catawba Nuclear Station, Units 1 and 2. In earlier Commission decisions, we outlined in detail the back-

ground of this proceeding, and need not repeat that history here.[1] Before us today is the Blue Ridge Environmental Defense League's (BREDL's) petition for review of LBP-03-17, 58 NRC 221 (2003), a recent Atomic Safety and Licensing Board decision rejecting BREDL's Amended Contention 2. After careful consideration of the petition, the responses, and the record, the Commission finds no basis to revisit the Board's conclusions. Accordingly, we deny the petition for review.

I. BACKGROUND

Our last substantive decision in this proceeding, CLI-02-28, remanded particular issues to the Board. We directed the Board to determine, among other things, whether BREDL's original Contention 2 (which the Board had admitted) had become moot. BREDL's original contention alleged that Duke's Environmental Reports for the Catawba and McGuire facilities — specifically, the Severe Accident Mitigation Analysis (SAMA) sections — were deficient for failure to acknowledge new findings made in NUREG/CR-6427, an NRC-sponsored study issued by the Sandia National Laboratories.[2] In CLI-02-28, we suggested that the NUREG/CR claim appeared moot because subsequently issued Draft Environmental Impact Statements acknowledged and discussed the study's findings.[3] In the meantime, however, the Board had given BREDL an opportunity to file an Amended Contention 2, to be based only upon ''any new information not previously available'' at the time their original contention had been filed.[4] We directed the Board on remand to determine whether the BREDL's Amended Contention raised timely, adequately supported, and genuine disputes for litigation.[5]

In LBP-03-17, the Board found Amended Contention 2 inadmissible (with one judge dissenting). The Amended Contention alleged that the ''Duke SAMA analysis is incomplete, and insufficient to mitigate severe accidents'' because it ''fails to provide an adequate discussion of information from NUREG/CR-6427.''[6] The contention outlined alleged deficiencies in Duke's SAMA analysis in eight separate numbered sections, or ''subparts.'' In its petition for review, BREDL claims that the Board erred in denying admission of ''subparts'' 2, 5, and 8. Below, after a brief introduction, we discuss each subpart in turn.

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[1] *See* CLI-02-28, 56 NRC 373 (2002); CLI-02-17, 56 NRC 1 (2002).

[2] NUREG/CR-6427, ''Assessment of the DCH [Direct Containment Heating] Issue for Plants with Ice Condenser Containments'' (April 2000) (''Sandia study'').

[3] The Licensing Board ultimately declared the original contention moot. *See* Order (Feb. 4, 2003) (unpublished).

[4] *See* CLI-02-28, 56 NRC at 386.

[5] *See id.* at 384-88.

[6] BREDL's and NIRS's Amended Contention 2 (May 20, 2002) (''Amended Contention'') at 4.

II. ANALYSIS

BREDL seeks Commission review under 10 C.F.R. § 2.786(b). First, we must consider the argument, advanced by Duke and the NRC Staff, that (properly speaking) BREDL should have brought this case to the Commission on a direct appeal under 10 C.F.R. § 2.714a. This argument has practical significance because there is a 15-day deadline for ''petitions for review'' but only a 10-day deadline for ''appeals.'' BREDL's petition is timely under the 15-day standard, but untimely under the 10-day standard.[7]

Where, as here, an already-admitted intervenor seeks Commission consideration of a Board dismissal of the last remaining contention in the case, our rules do not specify whether the proper vehicle is an appeal or a petition for review. Petitions for review are reserved, generally, for merits-based initial decisions or for partial initial decisions, whereas appeals apply to threshold determinations of standing and contention admissibility. At the threshold of this case the Board found standing and admissible contentions and thus admitted BREDL as an intervenor. BREDL has actively been litigating various contentions ever since. In these circumstances, we conclude that BREDL properly brought its challenge to the Board's latest decision as a petition for review under section 2.786(b). We construe section 2.714a to apply only to disappointed petitioners for intervention,[8] not to already-admitted ''intervenors.'' Hence, we will treat BREDL's petition as timely filed.

We grant petitions for review, of course, only where the petitioner raises a ''substantial question'' about specified matters: ''clearly erroneous'' fact findings; ''necessary'' legal conclusions that are ''without precedent'' or ''depart from'' established law; ''substantial and important'' questions of law, fact, or policy; ''prejudicial procedural error''; or ''any other consideration'' the Commission deems in the ''public interest.''[9] Here, none of these standards calls for further Commission review of the Board decision that BREDL challenges.

We turn now to BREDL's specific claims.

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[7] BREDL filed its petition for review within 15 days of the Board's final ruling in the case, LBP-03-19 (Oct. 16, 2003) (rejecting BREDL's motion to reinstate a MOX contention). Had it sought review prior to that ruling, the petition would have been an improper interlocutory appeal.

[8] By its own terms, section 2.714a authorizes appeals only by ''petitioners'' (or license applicants), not by ''intervenors.'' By contrast, section 2.786 authorizes ''a party'' — e.g., an admitted intervenor like BREDL — to file petitions for review.

[9] 10 C.F.R. § 2.786(b)(4).

A. Subpart 2: Failure To Provide Adequate Support for Conclusory Results in RAI Responses

Subpart 2's claim is that ''Duke has not supported its SAMA analysis by publication of its PRA [probabilistic risk assessment].''[10] BREDL states that it cannot evaluate ''the adequacy of the [SAMA] analysis'' without seeing the full PRA.[11] BREDL further claims that Duke merely has published the ''summary results'' of its PRA, and that this ''is insufficient to support the SAMA analysis, because there is no way to determine whether the assumptions underlying the calculations are reasonable.''[12] Subpart 2 also references several responses that Duke made to the NRC Staff's Requests for Additional Information. Calling these responses ''summary'' or ''qualitative in nature,'' BREDL cites them as ''examples'' of the alleged ''difficulty of verifying the reasonableness of Duke's SAMA analysis.''[13]

The Board agreed with Duke and the NRC Staff that the public record already contained ample PRA information sufficient to allow BREDL to raise substantive challenges to the SAMA analyses, and that BREDL had not provided an adequate basis explaining why additional PRA data were indispensable. The Board pointed out that Duke had submitted various portions of its PRAs and additional ''supplementary, quantitative, and qualitative information regarding changes to its PRAs.''[14] These publications, noted the Board, ''include data sought by BREDL/NIRS.''[15] Accordingly, the Board rejected BREDL's ''Subpart 2'' claim as, in effect, an impermissible effort to obtain discovery to formulate contentions.[16]

In its petition for review, BREDL argues that Subpart 2 is not an issue of discovery but of public disclosure under NEPA.[17] BREDL emphasizes that NEPA requires an Environmental Impact Statement (EIS) to take a ''hard look'' at the environmental consequences of agency decisions, to ensure that the agency has ''*adequately* considered *and disclosed*'' the environmental impacts of its actions.[18] Subpart 2, BREDL claims, raises the issue of ''what constitutes 'adequate' disclosure.''[19] In addition, BREDL states that the ''only way to make a meaningful evaluation'' of Duke's ''qualitative and summary'' RAI responses is

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[10] BREDL's and NIRS's Amended Contention 2 (May 20, 2002), at 4.

[11] *Id.*

[12] *Id.* at 4-5.

[13] *Id.* at 5-6.

[14] LBP-03-17, 58 NRC at 231.

[15] *Id.*

[16] *See id.*

[17] BREDL's Petition for Review of LBP-03-17 (Nov. 4, 2003) (''Petition'') at 5.

[18] *Id.* (emphasis in original).

[19] *Id.* at 6.

by publication of Duke's entire PRA, with all ''quantitative assumptions and data that went into the analysis.''[20]

BREDL's petition for review does not persuade us that we should second-guess the Board's rejection of BREDL's ''Subpart 2'' claim. As we see it, the Board was quite right to view it as an effort to obtain impermissible discovery. As the Commission long has emphasized, our contention rules bar contentions where petitioners have only ''what amounts to generalized suspicions, hoping to substantiate them later,'' or ''simply desire more time and more . . . information'' in order to identify a genuine material dispute for litigation.[21] Here, while BREDL's Amended Contention ''criticizes the qualitative and summary nature''[22] of statements contained in Duke's RAI responses, there is no indication from either BREDL's counsel or technical expert that BREDL reviewed the extensive supporting background PRA information that was available publicly, and no description of why this available information was insufficient for BREDL to challenge the SAMA analysis in the NRC Staff's EISs.

At the outset, we must stress that the EISs contain SAMA analyses in addition to and often quite different from those provided in Duke's Environmental Reports and RAI responses. We frankly do not comprehend BREDL's continued concentration (in its Amended Contention and petition for review) on supposed flaws in Duke's submissions, as opposed to the more recent, decisive EISs.

Moreover, in this case all PRA information reviewed by and relied upon by the Staff for the EIS severe accident mitigation alternatives analysis was publicly available. What BREDL seeks is *additional* PRA information — information never sought, reviewed, or relied upon by the NRC Staff when it conducted its SAMA analyses. To be litigable, BREDL's contention needed to indicate why the PRA information that the NRC Staff relied on in the EIS was inadequate or too sparse. BREDL never did so.

BREDL claims that the Board improperly reached the merits of the PRA issue when it found ''that portions of the PRA that had been submitted . . . were sufficient to satisfy the concerns of Subpart 2.''[23] But the Board did not find that the available PRA information is accurate, or that it verifies the SAMA analyses' conclusions. The Board merely found that ample PRA information exists in the record, and therefore it was incumbent upon BREDL to indicate, with some specificity, why more information is necessary to evaluate the SAMA analyses.

While the Board did not elaborate on its conclusion, even a cursory glance at the record finds generous support for the Board's finding. For example, at

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[20] *See id.* at 5-6.

[21] *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 337-39 (1999).

[22] Petition at 5.

[23] *Id.* at 6.

oral argument before the Board, a Duke spokesman explained that, years ago, as part of its Individual Plant Examination (IPE) submittal,[24] Duke had provided full PRA information for both McGuire and Catawba; he also pointed out that since then, whenever Duke has revised its PRAs, it has submitted detailed summaries of the changes made.[25] Duke ''considered submitting the entire PRA . . . whenever we did the current revisions,'' the PRA manager explained, but because the PRA information contains ''a lot'' of Duke proprietary information and ''a lot'' of vendor-specific proprietary information, the decision was made ''not to put the entire PRA on the docket but to put together summary revisions that give the information necessary to understand the risk insights for the plant.''[26] He described these summaries as ''very detailed'' reports that

> include[ ] the system models, the data that was used in the PRA, the initiating event frequencies and how they were calculated, the human reliability data, and the top 100 cut sets for both internal events and external events as well as an explanation for the difference in the results between that and the original IPE submittal.[27]

He said that using the information Duke has provided ''someone could very easily . . . do a SAMA evaluation for virtually anything.''[28]

At oral argument before the Board, the administrative judges repeatedly and explicitly pressed BREDL on whether it had reviewed the portions of the PRA that are published and available and asked why the public PRA information was inadequate.[29] The Board inquired whether BREDL had tried to perform any kind of ''independent calculations'' or analysis to point out anything lacking or wrong in the available PRA information.[30] But BREDL did not indicate that it (or its expert) had even reviewed the available PRA information, much less attempted any independent analysis. BREDL's request for PRA information apparently emerged during settlement discussions, when Duke repeatedly asked BREDL to

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[24] Licensees have performed individual plant examinations as part of the Commission's ongoing regulatory programs. The IPE looks for plant vulnerabilities to internally initiated events. A separate IPE for externally initiated events is called the IPEEE. These examinations are ''essentially site-specific probabilistic risk assessments that identify the probabilities of core damage and evaluate containment performance under severe accident conditions.'' CLI-02-17, 56 NRC 1, 7 n.12 (2002) (citation omitted).

[25] July 10, 2002 Transcript at 981-84.

[26] *Id.* at 989-90.

[27] *Id.* at 982; *see also* Mar. 18, 2003 Transcript at 1449.

[28] July 10, 2002 Transcript at 982-84; *see also* Mar. 18, 2003 Transcript at 1426-28, 1449-50.

[29] *Id.* at 972, 980, 981, 991.

[30] *Id.* at 991; March 18, 2003 Transcript at 1219, 1448.

''please read what's out there [on the PRA] first,'' and advise Duke if something ''additionally is needed.''[31] No request for specific additional items was made.

Instead, BREDL simply asserted to the Board that it needed more ''details'' and demanded disclosure of the entire PRA.[32] BREDL's technical expert said only that ''[s]ome of the summary information . . . provided by Duke is generally simply numerical results and it is very difficult to establish the entire reasoning behind some of the numerical results.''[33] But the Board in a majority opinion written by two judges with technical backgrounds found the available PRA information considerable, so much so that BREDL should have indicated in its contention why anything more was needed. The Board noted that even the so-called ''Summary Report'' of PRA Revision 2 was ''not insubstantial,'' ''occup[ying] one full cart of microfiche plus an extra page.''[34] The Board majority found no basis to support BREDL's claim that without the entire PRA ''it is not possible to evaluate the adequacy of the [SAMA] analysis.''[35] The Board's finding seems to us a reasonable one. It does not warrant further Commission review under 10 C.F.R. § 2.786.[36]

We are disinclined to take up the PRA issue for another reason, not mentioned by the Board — that is, BREDL's PRA contention is blatantly untimely. At bottom, BREDL's claim is that the SAMA analysis is deficient, overall, for failure to verify Duke's PRA submissions through demanding more data from Duke. But this claim has been available from the outset of this adjudication. BREDL offers no reason why its original contentions did not raise a claim of deficient PRA information. As the NRC Staff says, ''[t]he fact that Duke's entire PRA had not been made public was apparent from the date the license renewal application was filed in June of 2001.''[37]

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[31] April 10, 2002 Transcript at 878; *see also id.* at 890, 851-53.

[32] *See, e.g.,* July 10, 2002 Transcript at 972; April 10, 2002 Transcript at 852.

[33] July 10, 2002 Transcript at 991.

[34] November 6, 2002 Transcript at 1160-61.

[35] Amended Contention 2 at 4.

[36] The dissent suggests that ''if the persons with whom the NRC contracted to produce NUREG/CR-6427 were not aware of the [PRA] documents in question, one may question the holding of intervenors to a higher standard, notwithstanding the differing contexts of an NRC-contracted study and the filing of contentions by petitioners for an adjudicatory hearing.'' LBP-03-17, 58 NRC at 255 (Young, J., dissenting). But the comparison is faulty. The Intervenors had the Environmental Reports, which discuss or reference the Individual Plant Examination (IPE), Individual Plant Examination External Events (IPEEE), and the PRA Revision 2 (for McGuire) or Revision 2b (for Catawba). There was no reason, then, for the Intervenors not to be ''aware'' of these items. The NUREG/CR, on the other hand, was a generic study which did not purport to have the most recent or comprehensive plant-specific PRA information and qualified its conclusions accordingly. *See, e.g.,* NUREG/CR-6427 at 6-7 (''detailed and credible Level I and Level II probabilistic analyses, specific to each plant'' are the ''best way'' to assess issues raised in the study but were ''outside the scope'' of the study).

[37] NRC Staff's Response to BREDL's Petition for Review of LBP-03-17 (Nov. 19, 2003) at 6-7.

BREDL attempted to revive the issue by ''tying'' it to statements made in Duke's post-contention RAI responses.[38] But Duke did not alter its PRAs when responding to the RAIs. The mere fact that the Staff, in an RAI, may ask for clarification of particular information in Environmental Reports — in fact, a common practice — does not serve to ''restart the clock'' on the timeliness of claims that could have been identified and raised earlier.

Petitioners must raise and reasonably specify at the outset their objections to a license application.[39] BREDL argued before the Board that raising its PRA concerns in its original contention would have required ''anticipating deficiencies that we haven't seen'' because Duke had not yet considered the information in the Sandia study.[40] But Duke's initial Environmental Reports contain numerous references to the PRA studies that Duke used in performing the SAMA analysis.[41] If BREDL had concerns about the availability or adequacy of those studies, it could have and should have raised the issue in its original contention.[42]

B. Subpart 5: Failure To Take Adequate Account of Uncertainties

BREDL's Subpart 5 alleges that Duke failed ''to take adequate account of uncertainties and their effect on the results of its analysis,'' and, ''to a significant extent,'' did not perform an uncertainty analysis. BREDL also claims that to the extent an uncertainty analysis has been performed, Duke ''has not taken uncertainties into account in an adequate manner.''[43] The Board rejected these claims on timeliness grounds (among others), noting that they ''could have been filed earlier.''[44]

In its petition for review, BREDL offers just one argument to overturn the Board's lateness finding. As BREDL's argument goes, ''[a]t the time the ER [Environmental Report] was submitted, BREDL filed a contention challenging the ER for failing to take NUREG/CR-6427 into account.''[45] BREDL claims that it did not raise the uncertainty analysis issue in its original contention because

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[38] July 10, 2002 Transcript at 978.

[39] *Oconee,* CLI-99-11, 49 NRC at 388; *see also* 10 C.F.R. § 2.714(b)(2)(iii).

[40] March 18, 2003 Transcript at 1235.

[41] *See, e.g.,* Attachment H to Catawba Environmental Report (May 2001) at 1-6, 8-11, 22, 32.

[42] Indeed, when alerted to the extensive PRA information provided with the IPE submittal and the subsequent detailed summaries that describe how the PRA has been since updated, BREDL's technical expert emphasized that ''the IPE itself is flawed'' and therefore unreliable. *See* March 18, 2003 Transcript at 1450. If BREDL's key concern about the PRA is a flawed underlying IPE, it is not apparent why BREDL could not have raised that issue based upon Duke's Environmental Reports.

[43] Amended Contention at 9-10.

[44] LBP-03-17, 58 NRC at 236, 237.

[45] Petition at 8 n.12.

''it was reasonable to believe that Duke would [go on to] perform an uncertainty analysis in evaluating the highly significant information in NUREG/CR-6427.''[46] This is unpersuasive.

BREDL's argument is based on the fact that at the time that BREDL filed its original contention, the NRC Staff in an RAI had requested Duke to assess how the conditional containment failure probabilities (found in the Sandia study) would impact the SAMA analyses. But simply because the Staff had requested Duke to incorporate the study's conditional containment failure probabilities into its analyses does not, in the least, suggest that Duke would respond to the Staff's specific request by also ''perform[ing] an uncertainty analysis.'' Nowhere was there any Staff directive to redo or perform additional uncertainty analyses.[47]

The adequacy or lack of an uncertainty analysis (like alleged inadequacies in a PRA analysis, discussed above) is a broad-based yet distinct issue that goes to the methodology and data Duke used in its SAMA analysis. Such issues clearly could have been raised specifically in BREDL's original contention. BREDL seems to believe that by merely pointing to the Sandia study (i.e., NUREG/CR-6427) in its original contention, BREDL had adequately put the Board and the other litigants on notice that BREDL intended to litigate any and all of the study's recommendations or underlying assumptions.[48] BREDL's expectation, however, is a far cry from our contention standards, which require petitioners to plead specific grievances, not simply to provide general ''notice pleadings.''

NRC contention admissibility and timeliness requirements demand a level of discipline and preparedness on the part of petitioners. But there would be no end to NRC licensing proceedings if petitioners could disregard our timeliness requirements every time they ''realize[d] . . . that maybe there was something after all to a challenge it either originally opted not to make or which simply

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[46] *Id.*

[47] Moreover, as the Board noted when questioning BREDL on timeliness, the lengthy Sandia study itself does not have much to say on the subject of uncertainty analysis, other than merely to recommend that ''PRA studies ideally should be accompanied by uncertainty quantification.'' March 18, 2003 Transcript at 1215 (*quoting* NUREG/CR-6427 at 113). The study even acknowledges that the NRC traditionally has not required such uncertainty analysis, the Board observed. *Id. See also id.* at 1238.

[48] *See, e.g.,* July 10, 2002 Transcript at 1042:

> Dr. Lyman (BREDL's technical expert): My view of taking into account this [Sandia study] document is not simply swapping one conditional containment failure frequency for another . . . . It is taking into account, and examining, and comparing, Duke's PRA analysis from the beginning with all the assumptions and discussion in [the Sandia study], and indicating all the places where they are different, and making the appropriate adjustments.
>
> Judge Kelber: Where is that brought out in the Contention?
>
> Dr. Lyman: That is our Contention.

did not occur to it at the outset.''[49] Petitioners have an obligation to examine the application and publicly available information, and to set forth their claims at the earliest possible moment. We agree with the Board that BREDL did not do so with its ''uncertainty analysis'' claim.[50]

C. Subpart 8: Failure To Justify Conclusion That Return Fans Are Essential

In Subpart 8 of the Amended Contention, BREDL takes issue with Duke's position that air-return fans are necessary to ensure the effectiveness of hydrogen igniters and thus render igniters less cost-effective. Duke's view ''has the effect of inflating the cost of the mitigative measure of hydrogen ignition,'' BREDL says.[51] As the basis for its claim, BREDL states that it ''agree[s] with'' the NRC's conclusion in the draft EISs that, '' 'based on available technical information, it is not clear that operation of an air-return fan is necessary to provide effective hydrogen control.' ''[52] BREDL quotes approvingly from the Staff's conclusion in the draft EISs indicating that air-return fans may not be needed for the hydrogen control SAMA and, even if needed, the SAMA may still prove cost-beneficial:

> If only the igniters need to be powered during SBO [station blackout], a less-expensive option of powering a subset of igniters from a back-up generator, addressed by Duke in responses to RAIs, is within the range of averted risk benefits and would warrant further consideration. Even if air-return fans are judged to be necessary to ensure effective hydrogen control in SBOs, the results of sensitivity studies suggest that this combined SAMA might also be cost-beneficial.[53]

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[49] CLI-02-28, 56 NRC at 386 n.61 (quoting *Union of Concerned Scientists v. NRC,* 920 F.2d 50, 55 (D.C. Cir. 1990)).

[50] The Board explicitly found that BREDL had ''failed to demonstrate any 'new information' in those RAI responses bearing upon'' uncertainty analyses, and that therefore BREDL provided no justification for its late claims. LBP-03-17, 58 NRC at 237. BREDL gives us no reason to question that conclusion. Moreover, as the Board also found, it appears that BREDL misunderstood information in an RAI response (RAI 2), and as a result, its Subpart 5 contention presented a ''misleading'' or unsupported allegation on uncertainty values. *See id.*

[51] Amended Contention at 17.

[52] *Id.* (*quoting* NUREG-1437, ''Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Regarding McGuire Nuclear Station Units 1 & 2,'' Supp. 8 (May 2002) (Draft Report) at 5-30.

[53] *Id.*

BREDL's Subpart 8 concludes that Duke's view on air-return fans should be rejected ''unless supported by detailed analysis because it results in the artificial inflation of the cost'' of the SAMA.[54]

In rejecting Subpart 8, the Board majority noted that the NRC Staff's *final* EISs *did* conclude, as BREDL had argued, that the ''use of an air-return fan may not be advantageous.'' The Board concluded from this that BREDL had already obtained the relief it sought in its ''return fans'' contention (Subpart 8) and refused to admit the contention for further litigation or hearing.[55]

In its Petition for Review, BREDL asks the Commission to reverse the Board's finding.[56] BREDL says that the final EISs ''merely suggest that Duke *may* be wrong, but provide no firm analysis that supports the suggestion.''[57] BREDL apparently finds the EISs inadequate because they do not resolve, definitively, whether air-return fans are needed. BREDL thus calls the EIS conclusion inappropriately ''equivocal,'' and states that the NRC Staff under NEPA cannot ''postpon[e]'' the resolution of the air-return question.[58]

BREDL's Petition for Review contradicts its own Amended Contention. Nowhere does BREDL's contention (Subpart 8) object to the NRC Staff's formulation of the ''return fan'' issue in the draft EIS. Neither does it suggest that the Staff's conclusion is overly ''equivocal,'' ''vague,'' or otherwise inadequate. On the contrary, the *exact* language that BREDL previously endorsed and quoted in Subpart 8 appears in the conclusion of the final EISs.[59] We do not, therefore, discern any ''clear error'' in the Board's rejection of Subpart 8, and decline to set aside or further consider the Board's findings.[60]

We conclude with an overriding observation applicable to all the SAMA claims we consider today. As BREDL's SAMA contention has evolved, it amounts to

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[54] *Id.*

[55] LBP-03-17, 58 NRC at 244.

[56] Petition at 9.

[57] *Id.*

[58] *Id.* at 10.

[59] NUREG-1437, Supp. 9 at 5-28 to 5-29 (Catawba) (Final Report) (Dec. 2002); NUREG-1437, Supp. 8 at 5-29 to 5-30 (McGuire) (Final Report) (Dec. 2002). Now, in its petition for review, BREDL quotes one of the very same sentences as an example of the EIS's ''equivocal'' statements. Petition at 10 n.14.

[60] The final EIS explains Duke's position on a need for air-return fans and the Staff's view that fans may not be necessary. The EIS goes on to provide SAMA cost-benefit estimates both with and without the air-return fans. The EIS points out that the Staff to date has not yet reached a definitive determination on the issue. The Staff continues actively to consider the air-return fan issue under Generic Safety Issue 189. This ongoing generic safety review will determine whether the NRC ultimately will require ice condenser plants like McGuire and Catawba to implement a hydrogen control SAMA.

a demand for a stronger NRC endorsement of the beneficial effects of providing backup hydrogen control capability. But, as we indicated when this case was last before us,[61] the EISs at issue here *already find the backup capability cost-beneficial,* albeit under particular assumptions. It is not apparent why BREDL continues to pursue the issue. While the cost-benefit discussion in the EISs may not be as detailed or unequivocal as BREDL would like, the Supreme Court has made clear that the underlying statute, NEPA, demands no ''fully developed plan'' or ''detailed explanation of specific measures which *will* be employed'' to mitigate adverse environmental effects.[62]

Under NEPA, mitigation (and the SAMA issue is one of mitigation) need only be discussed in ''sufficient detail to ensure that environmental consequences [of the proposed project] have been fairly evaluated.''[63] Here, in a generic EIS the NRC has conducted a thorough NEPA evaluation of the probability and consequences of severe reactor plant accidents,[64] and in plant-specific EISs the NRC Staff has discussed at length possible mitigation measures. The mitigation analysis outlines relevant factors, discloses opposing viewpoints, and indicates particular assumptions under which the Staff ultimately concludes that ''providing backup power to hydrogen igniters is cost-beneficial.''[65] The Staff presented its analysis and conclusion based upon the ''available technical information.''[66] NEPA requires no more.

NRC adjudicatory hearings are not EIS editing sessions. Our busy boards do not sit to parse and fine-tune EISs. To litigate a NEPA claim, an intervenor must allege, with adequate support, that the NRC Staff has failed to take a ''hard look'' at significant environmental questions — i.e., the Staff has unduly ignored or minimized pertinent environmental effects. Here, given the extensive discussion of backup hydrogen control capability in the EISs, BREDL's suggestion that the NRC has not given the issue a ''hard look'' borders on the frivolous.

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[61] 56 NRC at 387-88.

[62] *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 353 (1989) (emphasis the Court's). *See also, e.g., Okanogan Highlands Alliance v. Williams,* 236 F.3d 468, 476-77 (9th Cir. 2000); *Colorado Environmental Coalition v. Dombeck,* 185 F.3d 1162, 1173 (10th Cir. 1999).

[63] *Robertson,* 490 U.S. at 352.

[64] *See* NUREG-1437, ''Generic Environmental Impact Statement for License Renewal of Nuclear Plants,'' Vol. 1 (Final Report) (May 1996). The probability-weighted consequences associated with severe accidents was found to be of small significance for all plants. *Id.* at 5-115.

[65] NUREG-1437, Supp. 9 (Catawba) at 5-5, 5-29; *see also, e.g.,* NUREG-1437, Supp. 8 (McGuire) at 5-5 (providing backup power to hydrogen igniter ''is cost-beneficial under the assumptions presented); *see also id.* at 5-30.''

[66] NUREG-1437, Supp. 9 (Catawba) at 5-28; NUREG-1437, Supp. 9 (McGuire) at 5-29.

III. CONCLUSION

The Commission *denies* BREDL's petition for review.
IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 9th day of December 2003.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 50-336-OLA-2**

DOMINION NUCLEAR CONNECTICUT, INC.
(Millstone Nuclear Power Station,
Unit 2) **December 18, 2003**

The Commission denies a petition for reconsideration of a Commission Memorandum and Order finding the Petitioner's sole contention inadmissible.

RULES OF PRACTICE: RECONSIDERATION PETITIONS

Petitions for reconsideration should not be used merely to re-argue matters that the Commission already has considered but rejected. Reconsideration petitions must establish an error in a Commission decision, based upon an elaboration or refinement of an argument already made, an overlooked controlling decision or principle of law, or a factual clarification.

RULES OF PRACTICE: CONTENTIONS

A finding of standing to intervene in a proceeding does not equate to an admissible contention. While a petitioner may have a sufficient interest in a proceeding for standing, he or she may have no genuine material dispute to adjudicate, or no specific factual or legal support to bring an issue to hearing.

MEMORANDUM AND ORDER

The Commission has before it a petition filed by the Connecticut Coalition Against Millstone (CCAM) seeking reconsideration of the Commission's decision in CLI-03-14, 58 NRC 207 (2003). Both Dominion Nuclear Connecticut, Inc. (DNC) and the NRC Staff oppose the petition. We deny the petition.

As the Commission reiterated last year in another *Millstone* proceeding (in which CCAM also was a petitioner), ''[p]etitions for reconsideration should not be used merely to 're-argue matters that the Commission already [has] considered' but rejected.''[1] Reconsideration petitions must establish an error in a Commission decision, based upon an elaboration or refinement of an argument already made, an overlooked controlling decision or principle of law, or a factual clarification.[2] CCAM's petition merely repeats arguments already considered and rejected by both the Atomic Safety and Licensing Board in LBP-03-12[3] and the Commission in CLI-03-14.

In LBP-03-12, the Licensing Board ruled CCAM's contention in this proceeding inadmissible because CCAM never provided the necessary alleged facts or expert opinion to support claims that the license amendment at issue will cause a ''significant increase'' in effluents and an ''adverse impact'' on public health. CCAM's reconsideration petition suggests that no such alleged facts or expert opinion are necessary because the Licensing Board ''recognized as self-evident'' CCAM's claims of ''peril.''[4] On the contrary, the Board found no factual or legal basis for CCAM's contention, and rejected the contention accordingly.[5] CCAM inappropriately persists in suggesting that a Board finding of standing to intervene equates to an admissible contention. But as the Board itself explained, the ''requirements for an admissible contention are . . . considerably more stringent.''[6] As we noted in CLI-03-14, ''[w]hile a petitioner may have a sufficient 'interest' in a proceeding for standing, he or she may have no genuine material dispute to adjudicate, or no specific factual or legal support to bring an issue to hearing.''[7]

Finally, we note that throughout its petition, CCAM mischaracterizes the license amendment, suggesting that it will ''eliminate the existing requirement that [DNC] maintain [the] capability to close the door to containment during a

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[1] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-02-1, 55 NRC 1, 2 (2002) (quoting *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-24, 38 NRC 187, 188 (1993)).

[2] *Millstone,* CLI-02-1, 55 NRC at 2.

[3] LBP-03-12, 58 NRC 75 (2003).

[4] Motion for Reconsideration (Nov. 3, 2003) at 3.

[5] LBP-03-12, 58 NRC at 92-93.

[6] *Id.* at 93.

[7] CLI-03-14, 58 NRC at 216.

fuel handling accident,'' and that containment penetrations will no longer need to ''be operable.''[8] But as we already stressed in CLI-03-14, the license amendment does not relieve DNC of the need to remain fully capable of closing containment penetrations.[9]

In sum, CCAM has not pointed to any factual or legal error in CLI-03-14. We deny CCAM's petition for reconsideration.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 18th day of December 2003.

[8] Motion for Reconsideration at 2-3.

[9] CLI-03-14, 58 NRC at 218; *see also id.* at 214.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judge:

Alan S. Rosenthal, Presiding Officer

In the Matter of **Docket No. 40-8838-MLA**
(ASLBP No. 00-776-04-MLA)

U.S. ARMY
(Jefferson Proving Ground Site) **December 10, 2003**

MEMORANDUM AND ORDER
(Dismissing Proceeding Without Prejudice)

I. BACKGROUND

This license amendment proceeding had its genesis in the publication on December 16, 1999, of a *Federal Register* notice providing an opportunity to seek a hearing on the application of the Department of the Army (Licensee) for an amendment to its outstanding materials license (SUB-1435). 64 Fed. Reg. 70,294. Under the auspices of that license, the Licensee had conducted over the course of several years activities on its Jefferson Proving Ground (JPG) site in Indiana that had resulted in the accumulation on the site of a substantial quantity of depleted uranium munitions. The sought amendment called for the decommissioning of the site in accordance with a plan that had been submitted to the NRC Staff.

In response to the *Federal Register* notice, Save The Valley, Inc. (Petitioner) filed a timely hearing request. On a determination that it satisfied the requirements of 10 C.F.R § 2.1205(e) and (h), the relevant provisions of the portion (Subpart L) of the Commission's Rules of Practice concerned with the adjudication of materials licensing proceedings, the hearing request was granted in LBP-00-9, 51 NRC 159 (2000).

As observed in LBP-00-9, the Licensee had noted the existence of ''a distinct possibility that the [then] current decommissioning plan will undergo revision in material respects'' and, accordingly, had requested ''that further proceedings be held in abeyance pending the outcome of its anticipated further interaction with the NRC Staff with regard to [that] plan.'' *Id.* at 161. In accordance with that request, the proceeding was placed in a state of suspension. The Licensee was required, however, to submit quarterly status reports.

In June 2001, the Licensee submitted to the NRC Staff an entirely new plan, which it denominated its ''final decommissioning/license termination plan'' (LTP). Although the plan that had been provided the Staff in 1999 had been accepted on the administrative review that generally precedes the commencement of a full technical review, the Staff found the LTP to contain several deficiencies that required correction before such acceptance would be possible. The Staff did note, however, that it considered the LTP to supercede the earlier submitted plan, with the consequence that the Staff would not consider the latter any further.

In this circumstance, on the Petitioner's motion, the proceeding was continued in a state of suspension to await the LTP becoming a fit subject for adjudication. *See* LBP-01-32, 54 NRC 283 (2001). That day, however, never arrived.

In the course of its review of the LTP, the Staff apparently advised the Licensee that certain additional site-specific sampling and modeling on its part would be required. In the Licensee's view, such an undertaking would pose a safety threat to Licensee and contractor personnel because of the presence on site of unexploded ordinance. Accordingly, the Licensee put before the Staff a proposal that it be granted a license amendment that would create a 5-year, possession-only license (POLA) that would be renewable until such time as it became possible to perform the required site characterization safely. On October 28, 2003, the Staff published a *Federal Register* notice that indicated that it was considering the POLA request and provided an opportunity to seek a hearing on it. 68 Fed. Reg. 61,471. In response to that notice, the Petitioner filed a timely hearing request on November 26 that is currently pending.

In the wake of the October 28 *Federal Register* notice, I entered an order (unpublished) on October 30 in which the parties were directed to file memoranda on the questions (1) whether this new development had the effect of mooting the current proceeding; and (2) if not, what should be deemed the present status of the proceeding and what action should now be taken with regard to it. In their November 13 and 14 responses, respectively, the Licensee and Staff took the position that the proceeding is now moot and, as such, should be dismissed. In its November 13 response, the Petitioner asserted to the contrary that, given that withdrawal of the LTP appeared to be contingent upon approval of the POLA, the proceeding should not be considered moot unless and until that approval was forthcoming and the LTP then was withdrawn. Consequently, Petitioner would

have the proceeding continue in its present state of suspension to abide further developments.

On December 3, a telephone conference was conducted with counsel for the purpose of examining further the divergent views of the parties on the mootness issue. Also explored during the conference was whether there might be a means of accommodating the competing interests of those concerned.

II. DISCUSSION

A. It is clear from the written submissions as then supplemented at the December 3 telephone conference that, as is often the case in such matters, there is much to be said for both sides of the disagreement with respect to the course that should now be followed in this proceeding. To begin with, what gave rise to the proceeding was the decommissioning plan for the JPG site that the Licensee had submitted to the NRC Staff for its approval. Neither that plan nor the successor LTP remains, however, under any — let alone active — consideration at this time. Rather, as seen, the latter has been replaced by an entirely different proposal that does not call for site decommissioning but, rather, would have the Staff issue a 5-year, possession-only license that, because renewable, would be of indeterminate duration. That proposal is now the subject of an entirely different adjudicatory proceeding, triggered by the Petitioner's recently filed hearing request in response to the *Federal Register* notice addressed to it.

In light of these circumstances, there is weight to the insistence of the Licensee and Staff that there is not a current live controversy with regard to site decommissioning (the sole subject of the proceeding), with the consequence that there is no longer reason to keep the proceeding alive. As the Petitioner points out, however, the Licensee has not withdrawn the LTP and does not plan to do so unless and until the POLA proposal receives approval. Such approval is, of course, not a certainty and there is thus the possibility that the LTP might resurface in the relatively near term. In addition, even should the POLA be issued and the Petitioner's objections to it rejected, it would not perforce follow that the LTP will not be revived at a later date. As seen, the necessity for seeking the POLA apparently stemmed from the perceived inability of the Licensee, because of personnel safety considerations, to undertake at this juncture the site characterization activities that were insisted upon by the Staff. That situation might well be subject to change.

Given these factors, the Petitioner maintains with some force that the proceeding is not now technically moot and that the appropriate course is to keep it alive to abide further developments, albeit in a continued state of suspension. Were the LTP to be revived for one reason or another, the proceeding might then move forward without the Petitioner being burdened with the necessity to file a new hearing request addressed to decommissioning.

B. It was because there was obvious substance to the assertions put forth on each side of the disagreement that it seemed desirable to endeavor at the December 3 telephone conference to find some disposition that might satisfactorily accommodate the interests of all concerned. After some discussion, it became apparent that, consistent with those interests, this objective might be achieved by a dismissal of the proceeding without prejudice to its reinstatement should the LTP or another decommissioning plan akin to it once again come under active Staff consideration. On the one hand, a dismissal would now remove from the adjudicatory docket a proceeding concerned with a decommissioning plan that is not currently receiving consideration on the part of either the Licensee or Staff and, very possibly, will not receive further attention in the future. On the other hand, having the dismissal without prejudice to a reinstatement of the proceeding should decommissioning of the JPG site come to the surface anew would provide suitable recognition to the fact that the LTP has not been formally withdrawn and thus remains subject to further Staff action and possible approval should circumstances so warrant.

For the foregoing reasons, the proceeding is hereby *dismissed* on the sole grounds (1) that there is no plan for the decommissioning of the Jefferson Proving Ground site now being actively considered; and (2) the current substitute proposal of the Licensee with regard to that site is the subject of a recently instituted separate proceeding in which the Petitioner has a pending hearing request. Because, however, the decommissioning plan has not been withdrawn and might be restored for active consideration at a later date, the dismissal is explicitly stated to be *without prejudice* to a motion by Petitioner to revive the proceeding should the decommissioning of the site once again receive active NRC Staff consideration at the Licensee's behest.[1]

Given that it attaches present finality to the proceeding, this Order might well be deemed the equivalent of an initial decision. Although the result reached in it appears to have been accepted by all of the parties at the conclusion the December 3 telephone conference (*see* Tr. 21-23, 27), as such the order might be regarded as subject to the provisions of 10 C.F.R. § 2.1253 authorizing the filing of petitions for review with the Commission.

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[1] Presumably, the Staff will publish a new *Federal Register* notice in connection with any renewed consideration of site decommissioning. In any event, the Petitioner will be entitled to be informed of such a development through one means or another.

It is so ORDERED.

BY THE PRESIDING OFFICER[2]

Alan S. Rosenthal
ADMINISTRATIVE JUDGE

Rockville, Maryland
December 10, 2003

[2] Copies of this Memorandum and Order were sent this date by Internet electronic mail transmission to the counsel for the Petitioner, the Licensee, and the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges:

Alan S. Rosenthal, Presiding Officer
Dr. Anthony J. Baratta, Special Assistant

In the Matter of **Docket No. 40-8027-MLA-6**
(ASLBP No. 03-812-03-MLA)

SEQUOYAH FUELS CORPORATION
(Gore, Oklahoma Site) **December 23, 2003**

RULES OF PRACTICE: STANDING

A hearing requester under Subpart L, section 2.1205(h), must meet the ''judicial standard for standing.'' There must be a showing of (1) an actual or threatened, concrete and particularized injury, that (2) is fairly traceable to the challenged action, (3) falls among the general interests protected by the Atomic Energy Act (or other applicable statute, such as the National Environmental Policy Act), and (4) is likely to be redressed by a favorable decision. *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13 (2001).

RULES OF PRACTICE: INFORMAL HEARINGS (SPECIFYING AREAS OF CONCERN)

As the Commission has recognized, the pleading burden imposed upon the hearing requester in a Subpart L proceeding is ''modest.'' All that it need do is ''state [its] areas of concern with enough specificity so that the Presiding Officer may determine whether the concerns are truly relevant — i.e., 'germane' — to the license amendment at issue.'' *Sequoyah Fuels Corp.,* CLI-01-2, 53 NRC at 16. *See also* Statement of Considerations, ''Informal Hearing Procedures for Materials Licensing Adjudications,'' 54 Fed. Reg. 8,269, 8,272 (1989).

MEMORANDUM AND ORDER
(Granting Two Hearing Requests and Denying a Third)

On April 15, 2003, the NRC published in the *Federal Register* a notice concerning an application by the Sequoyah Fuels Corporation (Licensee) for an amendment to its outstanding source materials license (SUB-1010). According to the notice, the Licensee sought approval of a plan for the reclamation of a site near Gore, Oklahoma on which, between 1970 and 1993, the Licensee had operated a facility that had produced uranium hexafluoride from yellowcake (a uranium oxide) and converted depleted uranium hexafluoride to uranium tetrafluoride. 68 Fed. Reg. 18,268.

The notice recited that the Commission had determined in July 2002 that some of the waste material from the yellowcake solvent extraction process could be classified as byproduct material as defined in section 11e(2) of the Atomic Energy Act of 1954, *as amended,* 42 U.S.C. § 2014(e)(2). In the wake of that determination, and in response to the Licensee's request, in December 2002 the NRC Staff had amended the materials license to allow the possession of that waste as section 11e(2) byproduct material. Consequently, according to the notice, in its reclamation plan the Licensee proposed to build a disposal cell on the Gore site designed to meet the requirements set forth in 10 C.F.R. Part 40, Appendix A, for disposal of such byproduct material. The radioactive waste would be then placed in that cell. Permission was also sought to dispose of source material wastes in the cell. *Ibid.*

In response to the opportunity to seek a hearing contained in the notice, and in accordance therewith, hearing requests were submitted by the State of Oklahoma, the Cherokee Nation, and an individual, Ed Henshaw. The Licensee and NRC Staff responded to each request.

Action on the requests was deferred, however, to await the outcome of a companion proceeding in which Oklahoma sought to challenge the classification of the waste as section 11e(2) byproduct material. *Sequoyah Fuels Corp.* (Gore, Oklahoma Site), Docket No. 40-8027-MLA-5. In CLI-03-15, 58 NRC 349 (2003), the Commission rejected the challenge and, accordingly, on November 21, 2003, that proceeding was terminated. *See* LBP-03-25, 58 NRC 392 (appeal to the Commission pending).

Disposition of the hearing requests in the present proceeding is therefore now in order. More specifically, the proceeding being governed by the provisions of Subpart L of the Commission's Rules of Practice pertaining to the adjudication of materials licensing matters, the question is whether the requests meet the tests imposed by 10 C.F.R. § 2.1205(e) and (h). In a nutshell, in the case of each hearing request, it must be determined that the request is timely; that the requester has standing to challenge the license amendment application in issue; and that the

request presents at least one area of concern that is germane to the subject matter of the proceeding.

With respect to the standing requirement, section 2.1205(h) stipulates that the hearing requester must meet the ''judicial standard for standing.'' The Commission has observed in connection with an earlier proceeding involving the decommissioning of the Gore site that this means there must be a showing of

> (1) an actual or threatened, concrete and particularized injury, that (2) is fairly traceable to the challenged action, (3) falls among the general interests protected by the Atomic Energy Act (or other applicable statute, such as the National Environmental Policy Act), and (4) is likely to be redressed by a favorable decision.

Sequoyah Fuels Corp. (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13 (2001).

For the reasons that follows, Judge Baratta and I have concluded, in agreement with the NRC Staff, that the Oklahoma and Cherokee Nation hearing requests satisfy each of the tests imposed by the Rules of Practice and are therefore to be granted. The same cannot be said for the Henshaw request, however, and it therefore requires denial and dismissal.

I. THE HEARING REQUESTS AND RESPONSES THERETO

A. The Hearing Requests

1. Oklahoma Request

Oklahoma asserts standing to challenge the adequacy of the reclamation plan (plan) on the basis of the ''numerous property, financial, sovereignty, regulatory, public trust, and other interests'' that it insists would be affected by approval of the plan. May 14, 2003 Hearing Request at 9. The State proceeds to elaborate on that thesis in considerable detail. Among other things, it maintains that, ''[a]s trustee for natural resources, the State is responsible for protecting the environment, as well as the public health, safety, and welfare of its citizens, including those living in the vicinity of the [Gore] site.'' *Ibid.* According to the State, if approved, the plan will occasion ''pollution and damage to the land, air, waters, environment, natural resources, and citizens of the State of Oklahoma.'' *Id.* at 10. On that score, the hearing request cites an appendix to the plan for the proposition that the Licensee ''proposes to remediate approximately 186,000 kg of uranium while ''leaving approximately 74,000 kg unaccounted for.'' *Id.* at 10-11.

The Oklahoma hearing request goes on to specify numerous areas of concern. First, the State asserts that, contrary to the Licensee's proposal, the provisions of 10 C.F.R. Part 20 establishing standards for protection against radiation should be

applied to the decommissioning of the Gore site. *Id.* at 16-19. Second, Oklahoma maintains that the provisions of the plan ''dealing with soil cleanup and dose criteria are not adequate to protect public health, safety and the environment.'' *Id.* at 19-22. The bases for both of these concerns are provided in some detail.

As a third area of concern, Oklahoma notes that the Licensee intends to dispose of all waste at the site in a disposal cell designed for section 11e(2) byproduct material. It maintains that the Licensee has not demonstrated compliance with RIS-2000-23, Attachment 1, which sets forth the NRC's interim guidance on the disposal of non-section 11e(2) byproduct material in tailing impoundments. On that score, the State provides the reasons why it believes that the Licensee has not met the requirements of several of the criteria that determine whether such disposal can be made in the contemplated cell. *Id.* at 22-28.

Oklahoma's fourth area of concern pertains to the adequacy of the disposal cell design. Among other things, the State would have it that the proposed cell does not comply with the technical criteria set forth in 10 C.F.R. Part 40, Appendix A, because its design is insufficient ''to prevent migration of contaminants to soils and waters of the State, and will not meet radon release limits.'' *Id.* at 28-35.

In its fifth area of concern, Oklahoma insists that the Licensee has failed to characterize fully the waste and contaminated media at the Gore site for radiological and nonradiological materials. *Id.* at 35-37. Once again, reasons for this belief are assigned. The sixth area of concern would have it that the Licensee has not demonstrated adequate long-term custodianship, financial assurance, and institutional controls. *Id.* at 40. And, finally, as a seventh area of concern, the State complains of the failure of the Licensee to have submitted groundwater cleanup and monitoring plans along with the reclamation plan. *Id.* at 40-41.

2. Cherokee Nation Request

The Cherokee Nation is said to be ''a federally recognized tribe [that] exercises governmental authority over fourteen counties in eastern Oklahoma, including the county in which the [Gore] site is located.'' May 15, 2003 Hearing Request at 7. The Nation claims standing to seek a hearing on the reclamation plan based on the asserted fact that the Licensee's facility is located within the original boundaries of the Nation and the further assertion that, if approved in its current form, the plan ''will result in pollution and damage to the land, air, waters, environment, natural resources, and citizens of the Nation.'' *Id.* at 8-9. In this connection, the Nation maintains, among other things, that it ''owns and exercises governmental jurisdiction over the beds and banks of the Arkansas river where it passes the [Gore] site'' and that ''[p]otential groundwater and runoff contamination will certainly affect this property.'' *Id.* at 9. Additionally, the Nation claims standing on the basis of its interest in protecting from pollution-related injury the many tribal members said to live, to work, to recreate, and to travel in the Gore site's

vicinity. *Ibid.* Appended to the hearing request are the affidavits of several citizens of the Nation who aver that they live and/or own property near the Gore site, are concerned about the plan in issue, and wish to have the Nation represent his or her individual interest in a hearing on the plan.[1]

In large measure, the eight areas of concern advanced by the Cherokee Nation track those submitted by Oklahoma. In summary, they are (1) the reclamation plan contains inadequate descriptions of cell design, cleanup levels, groundwater monitoring, waste characterization, and site characterization; (2) the plan might not utilize the appropriate dose and cleanup criteria to ensure protection of the public health and safety and the environment; (3) the requirements of RIS-2000-23, Attachment 1 (*see* p. 445 *supra*) have not been met; (4) the disposal cell design does not provide an adequate cover, liner, and leachate collection system; (5) there are potential problems associated with the proposal to place unstabilized materials in the disposal cell; (6) the Licensee had not fully characterized the waste and contaminated media on the site; (7) the Licensee has not demonstrated adequate long-term custodianship, financial assurance, and institutional controls; and (8) neither the license amendment application concerned with the possession of section 11e(2) byproduct material on the Gore site nor the reclamation plan now in issue provided the required groundwater monitoring and corrective action plans. *Id.* at 11-19. In the case of each of the specified areas of concern, some explanation of its foundation is provided.

3. Henshaw Request

In a one-page May 15, 2003 filing, Mr. Henshaw represents that he owns 10 acres of land adjoining the Gore site on which his ''home and animals are located.'' His interest in this proceeding is said to stem from a desire to protect his ''health and that of his family''; ''home and acreage''; ''livestock, and animals''; and ''personal property.''

Although there are passing assertions of improper disposal cell design and ''improper environmental characterization,'' as well as an equally sparse reference to the proposed inclusion of non-11e(2) byproduct material in the disposal cell, Mr. Henshaw offers no particularization respecting his bald assertion that the information submitted by the Licensee ''does not demonstrate that my interests will be protected or that adequate steps have been taken to protect the health and safety of the general public in the near future let alone in perpetuity as will be

[1] According to the hearing request, under the Cherokee Nation's Constitution the Nation's Chief has the authority to conduct all business of the Nation. The request is said to have been filed by the Nation's General Counsel pursuant to a direction pertaining to the Licensee's facility issued by the Chief, and in the exercise of his asserted authority to handle the Nation's legal matters. *Id.* at 8.

necessary given the long half lives and toxicity of the constituents proposed to be left on site.''

B. The Responses to the Hearing Requests

1. Licensee Response

In a May 27, 2003 filing, the Licensee responded to the Oklahoma and Cherokee Nation hearing requests. On June 10, it responded separately to the Henshaw request.

Although not contesting Oklahoma's standing to seek a hearing on the reclamation plan (May 27 Response at 2), the Licensee maintains that the same cannot be said for the Cherokee Nation. To begin with, asserting that the Nation lacks organizational standing, the Licensee disputes that the Nation possesses a sovereign or regulatory interest that might provide a basis for such standing. *Id.* at 8-10. The response then addresses the Nation's assertion of ownership and financial interests in waters and other property in the vicinity of the site and insists that there has been a failure to describe ''the nature, location, or extent of these property interests or [to provide] any specific information on how these interests will be adversely impacted by the'' reclamation plan. *Id.* at 10-11. Turning then to the Cherokee Nation's claim of representational standing, the Licensee maintains that claim must also fail. This is because purportedly none of the persons who confirmed by affidavit that they wished the Nation to represent them provided sufficient information to demonstrate the possession of standing in an individual capacity — i.e., that they might suffer direct injury from NRC approval of the reclamation plan. *Id.* at 12-13.

Moving on to the question as to whether Oklahoma and the Cherokee Nation specified at least one area of concern germane to the subject matter of the proceeding, the Licensee asserts that neither hearing requester satisfied that requirement. *Id.* at 13 *et seq.* With respect to many of the presented concerns, the Licensee would have it that they do not warrant further consideration because, in its view, they are insubstantial and thus not ''rational.''

In its separate response to the Henshaw hearing request, the Licensee first points out that, contrary to the express direction contained in the *Federal Register* notice, the request was not served upon the Licensee either personally or by mail. For this reason, according to the Licensee, the request should be denied as untimely. June 10 Response at 3. In addition, the response maintains that the request fails to allege an injury-in-fact sufficient to establish standing to seek a hearing on the reclamation plan. *Id.* at 7-11. Finally, the Licensee insists that the request does not explicitly identify any areas of concern. *Id.* at 11-13.

2. NRC Staff Response

The Staff responded to all three hearing requests in a November 25 filing. As above noted, it supported the grant of both the Oklahoma and Cherokee Nation requests while urging the denial of the Henshaw request.

The Staff finds the standing of the State to rest in its asserted interest ''in protecting the waters it owns, the wildlife refuge it manages, and the roads it owns and maintains.'' November 25 Response at 5. In addition, the Staff takes note of Oklahoma's ''interest in protecting the interests of its citizens.'' *Id.* at 5-6. In the Staff's view, the State had met the requirement of alleging a potential concrete injury-in-fact to those interests stemming from an approval of the reclamation plan. *Id.* at 6.

Insofar as the Cherokee Nation's standing is concerned, the Staff offers a conclusion diametrically opposed to that of the Licensee. As it sees the matter, the governmental and property interests asserted by the Nation, taken in conjunction with its allegations of potential injury to those interests, are enough to carry the day. *Ibid.* Additionally, the Staff points to the affidavits of the Tribal members authorizing the Nation to represent their interests. *Id.* at 6-7.

The Staff also disagrees with the Licensee's assessment respecting Mr. Henshaw's standing. It believes that his request alleges an injury to his interests that comes within the zone of interests protected by an applicable statute and that the injury might be addressed by a favorable decision. *Id.* at 7.

Moving on to the areas of concern specified by Oklahoma and the Cherokee Nation, with limited exceptions the Staff finds them germane to the subject matter of the proceeding and thus, in this regard as well, parts company with the Licensee. *Id.* at 8-19. It agrees with the Licensee, however, that the Henshaw request does not present a cognizable area of concern. *Id.* at 19.

II. ANALYSIS

A. Oklahoma Hearing Request

Oklahoma's hearing request is clearly timely and the State's standing is understandably not in dispute. Apart from the fact that it was held to have standing to challenge aspects of a prior proposed decommissioning plan for this very site (*see Sequoyah Fuels Corp.,* CLI-01-2, *supra*), what was recently said with respect to Oklahoma's standing to seek a hearing in the *Fansteel* proceeding applies with equal force here: ''[I]n its sovereign capacity the State has both the responsibility to protect the welfare of its citizenry and a proprietary interest in the natural resources within its boundaries.'' *Fansteel, Inc.* (Muskogee, Oklahoma Facility), LBP-03-22, 58 NRC 363, 367 (2003). Moreover, as in *Fansteel* (*id.* at 367-68), Oklahoma has sufficiently identified ''the injury-in-fact-that assertedly

will be suffered by the interests that it has a duty to protect should the proposed plan receive NRC approval.''

Turning now to the question of the admissibility of the areas of concern specified by the State, and more specifically to whether (contrary to the Licensee's assertion) at least one of them qualifies as ''germane to the subject matter of the proceeding,'' a few preliminary observations are in order to put the inquiry in proper context. As the Commission has recognized, the pleading burden imposed upon the hearing requester in a Subpart L proceeding is ''modest.'' All that it need do is ''state [its] areas of concern with enough specificity so that the Presiding Officer may determine whether the concerns are truly relevant — i.e., 'germane' — to the license amendment at issue.'' *Sequoyah Fuels Corp.,* CLI-01-2, *supra,* 53 NRC at 16. *See also* Statement of Considerations, ''Informal Hearing Procedures for Materials Licensing Adjudications,'' 54 Fed. Reg. 8269, 8272 (1989).

In the recent *Fansteel* decision, LBP-03-22, this presiding officer found it necessary to stress both the Commission's characterization of the burden imposed upon the Subpart L hearing requester and, by way of contrast, the much greater obligation that must be assumed by a petitioner for intervention in a reactor licensing proceeding subject to the provisions of Subpart G of the Rules of Practice. 10 C.F.R. § 2.700 *et seq.* Unlike a Subpart L hearing requester, a Subpart G petitioner must supplement its petition with a list of the contentions that are sought to be litigated. With respect to each contention, the petitioner must illuminate the bases of the contention; disclose the alleged facts or expert opinion upon which the contention is founded with reference to the specific sources and documents relied upon; and provide sufficient information to show the existence of a genuine dispute on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2).

The necessity for emphasizing in *Fansteel* this difference in burdens stemmed from the fact that the licensee there had opposed the admissibility of most of the areas of concern advanced by the hearing requester (as here, the State of Oklahoma) essentially on the ground that a convincing basis had not been supplied for them — in other words, because they had not been demonstrated to have possible merit. In granting the hearing request, and accepting the vast majority of the specified areas of concern as germane to the subject matter of the proceeding, that approach was firmly rejected. 58 NRC at 369-71.

In the proceeding at bar, the Licensee's assertion that none of the Oklahoma areas of concern satisfies the germaneness test rests upon the same faulty concept of the burden that the State was required to assume. For it is apparent that, in common with the *Fansteel* licensee, the Licensee here has founded its objection

to virtually all the areas of concern put forth by Oklahoma on the claim that they lack substance and, as such, are not ''rational'' and thus not germane.[2]

For example, as noted above, one of Oklahoma's concerns relates to the Licensee's asserted failure to establish proper dose and cleanup criteria. On that score, Oklahoma maintains, among other things, that the Licensee applied solely the requirements of 10 C.F.R. Part 40 to determine the total effective dose equivalent (TEDE) from residual radioactivity and to select the soil cleanup criteria. In Oklahoma's view, the Licensee should also have applied the requirements of 10 C.F.R. Part 20. In addition, the State insists that the use of the radium benchmark approach under Part 40 is inappropriate here by reason of the unusually high concentrations of uranium and thorium and relatively low levels of radium on the Gore site as compared to a typical uranium mill site. Still further, Oklahoma would have it that, in any event, the Licensee misapplied the radium benchmark dose calculation and the resident farmer scenario as described in NUREG-1620 Appendix H. Oklahoma Hearing Request 19-20.

The Licensee regards these claims (as well as the others advanced in connection with this area of concern, *id.* at 21-22) to be without merit. Licensee Response at 17-23. That might ultimately prove to be the case. As the Staff rightly concludes (Response at 10), however, it is scarcely open to serious doubt that the claims regarding the radium benchmark dose calculation and the residual farmer scenario — and thus the area of concern embracing them — have relevance on the ultimate question of the acceptability of the reclamation plan. Accordingly, they suffice to satisfy the requirement that the hearing request offer at least one area of concern germane to the subject of the proceeding — which is that plan.

With regard to the other assigned areas of concern, although finding most of them germane the Staff maintains that some of the State's claims are not litigable. This is because, according to the Staff, they (1) constitute impermissible attacks upon Commission regulations, (2) seek to challenge the Commission's determination regarding the classification of some of the waste as section 11e(2) material, (3) are moot, or (4) are concerned with groundwater monitoring and corrective plans that were the subject of a separate proceeding that has been terminated (*see Sequoyah Fuels Corp.* (Gore, Oklahoma Site), LBP-03-24, 58 NRC 383 (2003) (appeal to the Commission pending)). It is not clear, however, whether those objections go to the matter of relevance or, rather, pertain essentially to the merits of the claims in question. This being so, it will be left to the Licensee and the Staff to respond to the claims in their written presentations should they be renewed in Oklahoma's presentation.

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[2] The Licensee cites (May 27 Response at 14) *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), LBP-99-46, 50 NRC 386, 395 (1999), for the proposition that the specified area of concern must be ''rational'' in addition to ''truly relevant.'' Contrary to its seeming belief, however, a concern's rationality does not depend on its being meritorious.

B. Cherokee Nation Hearing Request

As noted above, in its timely hearing request, the Cherokee Nation bases the assertion of organizational standing on its claimed status as a federally recognized tribe possessing governmental authority, and its property interests with regard to areas in the vicinity of the site that purportedly will be adversely impacted should the reclamation plan receive NRC approval. As the Staff also sees it, the claimed status would appear to be enough to establish the Nation's standing, given that its request sufficiently identifies the perceived threat of injury to the interests it seeks to protect — interests that plainly come within the zone of interests protected by the Atomic Energy Act or the National Environmental Policy Act. Although the Licensee seemingly would have it that the Nation was obliged to supply factual or legal proof in support of its claimed status, no foundation for that insistence has been supplied or is evident. To the contrary, because on its face the claim does not appear of doubtful credibility, it was incumbent upon the Licensee to demonstrate that it nonetheless was lacking in substance. No such demonstration having even been attempted, the conclusion is required that the Cherokee Nation has organizational standing for essentially the same reason that Oklahoma possesses such standing. That being so, there is no need to consider the Licensee's further insistence that the affidavits appended to the hearing request are insufficient to confer representational standing upon the Nation.

As earlier seen, the Cherokee Nation's assigned areas of concern substantially mirror those of Oklahoma. Thus, what has been concluded with respect to the acceptability of the latter applies equally to the former. Specifically, for the purposes of determining whether a grant of the Nation's hearing request is warranted, it is enough that that request raises (at 12) essentially the same concerns regarding the utilized dose and cleanup criteria that have been found to be germane in the instance of the Oklahoma hearing request.

C. Henshaw Hearing Request

It is not necessary to pass upon whether, as urged by the Licensee, this hearing request is subject to dismissal as untimely because of Mr. Henshaw's failure to have served it upon the Licensee as specifically directed by the *Federal Register* notice of opportunity for hearing. Nor need it be now decided whether, as the Licensee (but not the Staff) disputes, Mr. Henshaw has demonstrated his standing to seek a hearing. For, in any event, the Licensee and Staff are clearly correct in their insistence that the hearing request does not set forth what might be considered as the adequate specification of a germane area of concern.

For the reasons stated, Oklahoma's May 14, 2003, and Cherokee Nation's May 15, 2003 hearing requests are hereby *granted.* The May 15, 2003 hearing

request of Ed Henshaw is *denied* for want of a sufficiently stated area of concern. As mandated by 10 C.F.R. § 2.1231(a), within thirty (30) days of the date of this Order, the Staff shall file a hearing file in the manner prescribed in that section.[3] Following the receipt of the hearing file, Judge Baratta and I will conduct a telephone conference with the parties for the purpose of scheduling the filing and service of the written presentations called for by 10 C.F.R. § 2.1233.

If so inclined, within ten (10) days of the service of this Order, the Licensee and Mr. Henshaw may appeal to the Commission in accordance with the provisions of

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[3] In accord with 10 C.F.R. § 2.1231, in creating and providing the hearing file for this proceeding within 30 days of the date of entry of this Order, the NRC Staff can utilize one of two options:

1. Hard copy file. The hearing file that is submitted to the Presiding Officer and the parties in hard copy must contain a chronologically numbered index of each item contained in it and each file item shall be separately tabbed in accordance with the index and be separated from the other file items by a substantial colored sheet of paper that contains the tab(s) for the immediately following item. Additionally, the items shall be housed in hole-punched three-ring binders of no more than 4 inches in thickness.

2. Electronic file. For an electronic hearing file, the Staff shall make available to the parties and the Presiding Officer a list that contains the ADAMS accession number, date, and title of each item so as to make the item readily retrievable from the agency's Web site, www.nrc.gov, using the ADAMS ''Find'' function. Additionally, the Staff should create a separate folder in the agency's ADAMS system, which it should label ''Sequoyah Fuels — 40-8027-MLA-6 Hearing File,'' and give James Cutchin of ASLBP and the SECY group (Office of the Secretary) viewer rights to that folder. Once created, the Staff should place in that folder copies of the ADAMS files for all the Hearing Docket materials. For documents in ADAMS packages a subfolder should be created into which the package content should be placed. The subfolder should have a title that comports with the title of the package. Thereafter, as part of its notice to the parties and the Presiding Officer regarding the availability of the Hearing File materials in ADAMS, the Staff should advise the Presiding Officer that this process is complete and the ''Hearing File'' folder is available for viewing. (As an information matter for the parties, once this notice is received, the contents of the folder will be copied so as to make its contents available to an ASLBP-created ADAMS folder that will be accessible to ASLBP personnel only and into a folder that will be accessible by the parties from the NRC Web site.) If the Staff thereafter provides any updates to the hearing file, it should place a copy of those items in the ''Sequoyah Fuels — 40-8027-MLA-6 Hearing File'' ADAMS folder and indicate it has done so in the notification regarding the update that is then sent to the Presiding Officer and the parties. If at any juncture the Staff anticipates placing any nonpublic documents into the hearing file for the proceeding, it should notify the Presiding Officer of that intent prior to placing those documents into the ''Sequoyah Fuels — 40-8027-MLA-6 Hearing File'' and await further instructions regarding those documents from the Presiding Officer. (Questions regarding the electronic hearing file creation process should be addressed to James Cutchin at 301-415-7397 or jmc3@nrc.gov.)

If the Staff decides to utilize option 2, within 7 days from the date of this Order it shall give notice to the Presiding Officer and the parties of that election. If any party objects to this method of providing the hearing file, it shall file a response within 7 days outlining the reasons why access to an electronic hearing file will place an undue burden on that party's ability to participate in this proceeding.

10 C.F.R. § 2.1205(o). Other parties to the proceeding may respond to the appeal within fifteen (15) days of the service of the appeal brief. Unless the Commission should direct otherwise, the filing of an appeal shall have no effect upon the further progress of the proceeding.

It is so ORDERED.

BY THE PRESIDING OFFICER[4]

Alan S. Rosenthal
ADMINISTRATIVE JUDGE

Rockville, Maryland
December 23, 2003

[4] Copies of this Memorandum and Order were sent this date by e-mail transmission to counsel for the parties.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael C. Farrar, Chairman
Dr. Jerry R. Kline
Dr. Peter S. Lam

In the Matter of **Docket No. 72-22-ISFSI**
(ASLBP No. 97-732-02-ISFSI)

PRIVATE FUEL STORAGE, L.L.C.
(Independent Spent Fuel Storage Installation) **December 31, 2003**

In this proceeding concerning the application of Private Fuel Storage, L.L.C., to construct and to operate an independent spent fuel storage facility on an Indian Reservation in Skull Valley, Utah, the Licensing Board found that the proposed rail spur that would link the Applicant's facility to the existing rail line would neither create greater adverse environmental impacts than the suggested alternative routes nor compromise any objectively cognizable wilderness values.

NEPA: ENVIRONMENTAL IMPACT ASSESSMENT (PROPOSED RAIL LINE)

In any evaluation of the environmental impact of a proposed rail line under the National Environmental Policy Act (NEPA), a principal consideration turns out to involve the extent of the need to conduct excavation and/or fill operations on the existing landscape to level out grade changes.

NEPA: ENVIRONMENTAL IMPACT STATEMENT

NEPA (42 U.S.C. §§ 4331 *et seq.*) and the implementing regulations the Commission has promulgated require that the final environmental impact statement (FEIS) describe the potential impacts of the proposed action on the environment and discuss reasonable alternatives to the action. 10 C.F.R. §§ 51.71(d), 51.90. In 10 C.F.R. Part 51, the Commission established a comprehensive set of regulations addressing its responsibilities under NEPA. Pursuant to 10 C.F.R. Part 72, an applicant for an independent spent fuel storage installation (ISFSI) must file an environmental report. 10 C.F.R. §§ 51.60(b)(iii) and 51.45. Following the environmental scoping process, the NRC Staff must issue a draft environmental impact statement (DEIS), which is to include a preliminary analysis that considers and weighs the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects. 10 C.F.R. §§ 51.70 and 51.71(d). The Staff then must issue its FEIS, based on a review of information provided by the applicant, information provided through comments on the DEIS, and information and analysis that the Staff itself obtains. 10 C.F.R. § 51.97(a).

NEPA: RULE OF REASON; CONSIDERATION OF ALTERNATIVES

An environmental impact statement (EIS) must look at ''alternatives available for reducing or avoiding adverse environmental effects.'' 10 C.F.R. § 51.71(d). The ''rule of reason'' guides ''both the choice of alternatives as well as the extent to which the [EIS] must discuss each alternative.'' *City of Carmel-by-the-Sea v. DOT,* 123 F.3d 1142, 1155 (9th Cir. 1997) (internal citation omitted). Thus, the discussion ''must consider not every *possible* alternative, but every *reasonable* alternative.'' *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991) (first emphasis added, citation omitted). Hence, NEPA does not require the consideration of alternatives that are impractical, *Airport Neighbors Alliance v. United States,* 90 F.3d 426, 432 (10th Cir. 1996); that present unique problems; or that cause extraordinary costs, *Communities, Inc. v. Busey,* 956 F.2d 619, 627 (6th Cir. 1992), *cert. denied,* 506 U.S. 953 (1992). Nor does NEPA require the consideration of speculative ''alternatives which could only be implemented after significant changes in governmental policy or legislation.'' *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 145 (1993) (internal citations omitted). Moreover, NEPA does not require the selection of the most environmentally benign alternative if ''other values outweigh the environmental costs.'' *Louisiana Energy Services, L.P.* (Claiborne Enrichment

Center), CLI-98-3, 47 NRC 77, 88 (1998) (quoting *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350 (1989)).

NEPA: CONSIDERATION OF ALTERNATIVES

NEPA also does not require the consideration of alternatives that ''are not significantly distinguishable from alternatives actually considered.'' *Headwaters, Inc. v. BLM,* 914 F.2d 1174, 1181 (9th Cir. 1990), *reh'g en banc denied,* 940 F.2d 435 (1991). ''[A]n agency's consideration of alternatives is sufficient if it considers an appropriate range of alternatives, even if it does not consider every available alternative.'' *Id.*

LICENSING BOARDS: RESPONSIBILITIES

In light of the principles of NEPA, the charge of a licensing board is to determine whether appropriate information has been gathered, considered, and disclosed, and a legitimate choice made based on that information.

NEPA: CONSIDERATION OF ALTERNATIVES (STAFF REVIEW)

With environmental (as with safety issues) the regulatory system is structured so that, in the absence of a hearing request coupled with a valid contention, the Staff makes the ultimate decision for the NRC. That being so, on all issues the Staff has a duty in the first instance to exercise its judgment and to make the decisions it believes warranted. Indeed, as to environmental issues, NRC regulations require the Staff to include its preliminary recommendations in the DEIS. 10 C.F.R. § 51.71(e).

There is no apparent bar to the Staff's according some alternatives less consideration than others when the Staff thinks particular overriding, obvious factors disqualify an alternative from further consideration. If the Staff is thought to have erred in making such a judgment, it is open to a party to demonstrate that to be the case, but in the absence of such a demonstration, the Staff is not precluded from making such value judgments.

NEPA: CONSIDERATION OF ALTERNATIVES (BURDEN OF PROOF)

Where it appears that a party's concerns about the depth of the Staff's consideration of alternative routes are triggered by the abbreviated nature of the Staff's initial discussion of them in the DEIS, such concerns may be cured by the Staff's testimony at the hearing.

To be sure, each alternative is subject to any number of large or small variations that might change its environmental impact or balance to some degree. But if a conceptual alternative carries with it major disqualifying impacts, it may be possible to determine generically that no slight variation on that alternative will change the result. If the Staff, explicitly or implicitly, makes such a generic disqualifying statement, it is not only *open to* a project opponent to urge that the Staff is wrong, but *up to* that opponent to go forward in that regard. In other words, the burden of going forward with countering proposals and/or evidence shifts to the opponent; otherwise, the Staff and applicant could face a never-ending series of ''what-if'' scenarios unsupported by any facts. Where the alternatives put forward were conceptually legitimate ones, if better ones are thought by the opponent to exist, it is up to the opponent to go forward with evidence that would have put those better alternatives into the mix. What is not permissible, in the face of a colorable showing that all conceptually valid alternatives had been considered (albeit rejected), is for a project opponent to stand on the sidelines simply saying, in effect, that there may be other alternatives (without identifying them).

TECHNICAL ISSUE: WILDERNESS VALUES

Where the federal agency charged with making the recommendation to Congress as to the wilderness status of a particular landform has found that area to be lacking in wilderness characteristics, it is doubtful that a licensing board has the authority to second-guess that determination.

LICENSING BOARDS: SITE VISITS

Commission adjudicators have long employed site visits as a way of assisting in reaching sound decisions. *See, e.g., Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 84 (1977). There is certainly no doubt as to the propriety of a site visit where all parties not only concurred in the idea of conducting such a visit but also participated in it. Under these circumstances, site visit observations may be relied upon as a way of confirming the evidence presented or, where disparities appear to emerge between the evidence adduced and a licensing board's site observations, as a trigger for resolving those disparities on the record through licensing board questions of witnesses and other similar techniques.

ADJUDICATION: ENVIRONMENTAL IMPACT STATEMENT (AMENDMENT)

ADJUDICATORY PROCEEDINGS: DUE PROCESS

As has long been the NRC rule, a licensing board's decision after a hearing substantively amends the FEIS *pro tanto. See Allied-General Nuclear Services* (Barnwell Nuclear Fuel Plant Separations Facility), ALAB-296, 2 NRC 671, 680 (1975); *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), LBP-82-100, 16 NRC 1550, 1571 n.20 (1982); *see also* 10 C.F.R. §§ 51.102(c), 51.104(a)(3). It naturally follows that the hearing process — which enables a project opponent to air its substantive concerns through direct testimony and exhibits of its own, as well as by cross-examination of the Applicant's and the Staff's witnesses — can serve to moot any earlier procedural inadequacies.

TECHNICAL ISSUE: RAILROAD ALTERNATIVES

When comparing alternative rail routes, apart from the minor or transitory impacts that will be associated with the construction of any rail line, the superior route will impinge the least on the existing surroundings and will avoid the movement of the quantities of earth and other disruptions that other routes would entail.

PARTIAL INITIAL DECISION
(Regarding ''Rail-Line Alternatives'')

OVERVIEW

Earlier this year, we issued decisions on two major *safety* issues raised by the State of Utah as part of its opposition to the application of the Private Fuel Storage nuclear utility consortium to construct and to operate on an Indian Reservation in Skull Valley, 50 miles southwest of Salt Lake City, an aboveground facility for the temporary storage of spent fuel from the nation's nuclear reactors. We turn now to an *environmental* issue raised by another opponent of the proposed facility, the Southern Utah Wilderness Alliance (SUWA).

All three issues were the subject of full-scale evidentiary hearings in 2002. The State's safety issues concerned the risk of damage *to* the facility posed by military

jet crashes[1] and by earthquakes.[2] In contrast, SUWA's issue concerns the risk of damage posed *by* the facility to environmental, wilderness, and related values.

Specifically, SUWA's challenge focuses on the proposed rail spur that, to link the facility with the Union Pacific main line (near Interstate 80), would run for some 26 miles down the west side of Skull Valley, along the Cedar Mountains. SUWA asserts that that rail-line proposal runs afoul of environmental and wilderness precepts embodied in the National Environmental Policy Act of 1969 (NEPA) and the Wilderness Act of 1964.

The evidence leads us to find that, contrary to SUWA's claims, *none of the alternative routes suggested for that rail line would be better from an environmental standpoint; indeed, all would be worse in terms of creating greater adverse environmental impacts than those associated with the Applicant's proposal.* And, guided by several factors — the statutory criteria for designating wilderness areas, the governmental rulings applying those criteria to the lands in issue here, and the physical character of those lands (as detailed in the Final Environmental Impact Statement, explained by the witnesses, and corroborated by our site visit) — we find that *the routing of the rail line does not compromise any objectively cognizable wilderness values.* We recognize that SUWA has worked diligently to preserve such values elsewhere in the State, but we must say that those values are neither apparent nor affected here.

With our decision herein denying SUWA's assertions, all the contentions raised by project opponents have now been considered by a Licensing Board. With

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[1] *See* LBP-03-4, 57 NRC 69 (2003), dealing with ''credible accidents'' and holding that the probability of a crash of an F-16 fighter jet from Hill Air Force Base into an array of 4000 twenty-foot-high spent fuel storage casks was too high to permit facility licensing unless that concern were to be addressed in some fashion. In the aftermath of that decision, and of the Commission's declining to review it at that juncture (CLI-03-5, 57 NRC 279 (2003), the Applicant PFS will be attempting to show — at a hearing before us that will take place at an as yet unscheduled time next year (*see* note 5, below) — that the results of such a crash would not produce any significant radiological consequences.

At one point, the Applicant was also seeking from us license approval to begin building a smaller facility that would, by storing only a very limited number of casks (336 instead of the planned 4000), reduce the probability of a military jet crash to acceptable levels. The Applicant has not pursued that interim step since we rejected it on procedural grounds last May. *See* May 29 Tr. at 13,729-856 (oral argument) and 13,857-59 (Board ruling); *see also* Tr. 13,859-75 (anticipating possible further proceedings).

[2] *See* LBP-03-8, 57 NRC 293 (2003) (''Regarding Geotechnical Issues''), holding essentially (*see* 57 NRC at 544) that the facility's design is adequate to withstand the seismic forces that it can fairly be expected to encounter. The Commission denied the State's petition for review of that decision (CLI-03-8, 58 NRC 11 (2003)).

a single exception, those contentions have all been resolved in the Applicant's favor in one fashion or another.[3]

The lone exception involves the military aircraft accident issue referred to above (note 1). The Board's ultimate decision[4] on the licensing of the proposed facility thus now turns on the outcome of that matter.[5]

We move on from the foregoing Overview by setting out in Part I below (pp. 461-76) the factual and statutory background that led to the dispute now before us and by summarizing there the factual findings we make and the legal conclusions we reach, providing the reasoning behind those determinations in narrative fashion. We then provide in Part II (pp. 477-94) a ''Detailed Analysis and Findings of Fact'' that reviews the law and the evidence and includes determinations either providing support for, or resulting from, the opinions and holdings expressed in the earlier, narrative portion of the decision (material from Part II is cited in Part I as ''Findings, ¶ or § __''). Finally, in Part III (pp. 494-96), we recite briefly our formal Conclusions of Law and our Order.[6]

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[3] *See* LBP-03-4, above, 57 NRC at 84. In that regard, to conserve time later, the Commission recently called upon the parties to file their petitions for review of those earlier Board rulings now, rather than await the completion of the entire proceeding before us. CLI-03-16, 58 NRC 360 (2003). Those petitions were duly filed with the Commission on December 4, 2003, with the respective replies filed on December 18.

[4] Our ''Initial Decisions'' are, as that term implies, subject to review by the Commission, whose final rulings on behalf of the agency are in turn reviewable by a United States Court of Appeals and may thereafter be considered by the U.S. Supreme Court.

[5] In declining at the end of May to review our air-crash ''probability'' decision at that juncture, the Commission urged us to resolve the matter of air-crash ''consequences'' by year-end 2003 (*see* CLI-03-5 (note 1, above), 57 NRC at 284-85). That matter now appears destined, however, for at best a late-Summer 2004 decision owing to its considerable — and increasing — complexity, as reflected in the series of unpublished scheduling orders we have issued over the intervening months. The most recent of those (October 10) suspended the hearing schedule *at the Applicant's request* (made October 7). So far, that schedule suspension has lasted 12 weeks, a period that was mostly consumed by the Applicant's preparation of its responses to the Staff's second round of RAIs (Requests for Additional Information).

[6] Although we have employed this ''Narrative/Findings'' form of opinion for each of the issues that were the subject of the Salt Lake 2002 hearings, we began discussing with the parties some time ago a different approach that should shorten our decision-writing tasks after the upcoming ''consequences'' hearing. *See* the May 29, 2003, Prehearing Tr. at 13,912, referred to in our unpublished September 9, 2003, ''Scheduling Order and Report,'' at 7 n.10.

I. FACTUAL AND STATUTORY BACKGROUND AND NARRATIVE DECISION

In this part of our decision, we cover in narrative form the major issues before us. We begin in Section A (pp. 461-62) by outlining certain fundamental background information about the relevant geographic setting and about the rail line's routing and impacts. In Sections B and C (pp. 463-65), we explain the processes by which NEPA and the Wilderness Act are implemented. In Section D (pp. 465-67), we discuss the alternative rail-line routes that have been considered and the factors that militate against their adoption. After reviewing in Section E (pp. 467-69) the Board's prior rulings and the evidentiary hearing that led to this decision point, we set out the rationale for our decision in Section F (pp. 469-76), covering there the key procedural and substantive issues before us. Finally, in Section G (p. 476), we summarize the ruling that flows from our resolution of those issues.

A. Geographical Setting, Rail-Line Routing, and Environmental Impacts

Skull Valley is framed by the Stansbury Mountains to the east and the Cedar Mountains to the west. Its width varies, but for purposes of this general description the Valley can be regarded as some 10 miles wide. To the north of the Valley is the southern end of the Great Salt Lake. Just south of the Lake, Interstate 80 runs in an essentially east-west direction, paralleled by the main line of the Union Pacific Railroad, which for many miles coming from the east lies north of I-80, between that highway and the Lake. As I-80 and the rail line approach the northern extremity of the Cedar Mountains, at the far northwestern reach of the Valley near the town of Low, the rail line turns northwest briefly before heading southwest, first ducking under the Interstate and then proceeding west of the mountains. *See* Findings ¶¶ 12-13.

To operate, the Applicant must be able to transport to its proposed facility the spent nuclear fuel that would be arriving by train from around the country on the Union Pacific main line.[7] The Applicant initially preferred a transportation arrangement (an ''intermodal transfer facility'' next to the main line) that would allow it to offload the shipping casks from the railcars and truck them down Skull Valley Road to the Reservation, but later amended its plans to make the use of a rail spur its preferred option. *See* LBP-02-2, 55 NRC 20, 22 (2002).

The Applicant's proposal would have the facility's rail spur join the main line just after, as described above, it reaches the south side of I-80 at a location known

[7] Bringing in the contemplated 4000 shipping casks containing the spent fuel canisters over the proposed 20-year license period would involve an average of just under four casks per week.

(after the town name) as Low Junction (and also referred to as Skunk Ridge). This so-called ''Low'' route would first head generally east for 3 miles, passing through a narrow corridor between the end of the mountains and the Interstate, then turn generally south for some 26 miles. *See* Findings ¶¶ 3, 13-14.

For part of that run, the rail spur would traverse the so-called North Cedar Mountain Area (NCMA), which SUWA has been promoting for special designation and protection under the Wilderness Act. In following that path, the spur would separate a piece of NCMA land roughly 1/2 to 3/4 of a mile wide and some 2 1/2 miles long (altogether comprising some 800 acres) from the remainder of the area (some 14,000 acres). Eventually, after completing its southerly run, the rail spur would turn east for 3 miles to reach the Reservation of the Skull Valley Band of Goshute Indians, where the facility would be located. *See* Findings ¶¶ 3, 15.

In any evaluation of the environmental impact of the proposed rail line under the National Environmental Policy Act (*see* Section B, below), a principal consideration turns out to involve the extent of the need to conduct excavation and/or fill operations on the existing landscape to level out grade changes. The Applicant's proposed line — running along a contour line relatively close to the elevation of the PFS site — was said to be in rough net balance in that regard,[8] thereby eliminating any need to truck in soils from offsite locations.

Construction of the line will generate some other, less consequential environmental impacts. As with any of the routes, there may be small to moderate impacts on air quality as a result of the dust from constructing the railroad. Staff Testimony (*see* pp. 480-81, below), Post Tr. 4653, at 13. There will also be small to moderate impacts from flooding. *Ibid.* There will be small to moderate socioeconomic impacts on holders of grazing allotments and to wildlife use of watering resources within the area. *Ibid.* Likewise, small to moderate impacts to portions of eight historic properties will affect cultural resources. *Ibid.* Finally, scenic qualities will be affected by moderate impacts to recreational viewers and possibly to residents of Skull Valley. *Ibid.*[9] *See generally* Findings ¶¶ 25-34.

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[8] Construction of the Low line was said by the Staff to require (approximately) 885,000 cubic yards of excavation and 630,000 cubic yards of embankment, or fill, yielding an excess of 255,000 cubic yards of excavated material (which could be placed in areas adjacent to the rail line as additional embankment) (Staff Testimony (*see* pp. 480-81 below), Post Tr. 4653, at 15).

[9] The Final Environmental Impact Statement (FEIS) (*see* note 20, below) also addresses other possible impacts on the environment. Specifically, the Staff conducted evaluations of the impacts on geology, water resources, air quality, ecological resources, socioeconomic resources, community resources, cultural resources, human health impacts of transporting spent nuclear fuel, noise, visual qualities, recreation, and wildfires. *See* Staff Testimony, Post Tr. 4653, at 13. Based on both the FEIS and the testimony presented at the hearing, it is clear that as to each of these factors the rail line's impact is small. *Ibid.*

B. NEPA Requirements and Process

The National Environmental Policy Act of 1969 (NEPA) requires federal agencies to consider the environmental impacts of their actions and to incorporate environmental considerations into their decisionmaking, including evaluating alternatives to the proposed actions. In terms of NRC practice, this means that the Staff prepares an environmental impact statement (drawing on an applicant's environmental report) which evaluates the consequences of a proposed licensing decision — such as the matters set out above — and presents alternatives to such action. *See* 42 U.S.C. §§ 4331 *et seq.* and 10 C.F.R. § 51.71(d).

To summarize Part II's discussion on this point (*see* Findings ¶¶ 6-7), the standard used by courts to determine the sufficiency of an impact statement requires the decisionmakers to have taken a ''hard look'' at environmental considerations in formulating their decision,[10] and compels an analysis of ''every *reasonable* alternative'' (''not every possible alternative'') to the proposed licensing action.[11] Although the courts have indicated they will not compel an agency to choose any *specific* alternative,[12] NEPA does provide a *framework* for agency use in making a decision as to which alternative to select in a particular situation. In doing so, an agency need not choose the most environmentally favorable alternative if ''other values outweigh the environmental costs.'' *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350 (1989).

In light of these principles, our charge is to determine whether appropriate information has been gathered, considered, and disclosed, and a legitimate choice made based on that information (*see* pp. 478-79, below). Before the matter came to us for action on the merits, the NRC Staff — in conjunction with other affected federal agencies, including the Department of the Interior's Bureau of Land Management (BLM) (*see* Section C, below) — had prepared a draft environmental impact statement (DEIS) analyzing the potential environmental impact caused by the Low Junction rail spur.[13] In that statement, the Staff discussed both the general use of a rail spur as a means of transporting the spent fuel and the specific location proposed for the rail spur (DEIS at 2-12 to -14).

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[10] *See Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88 (1998).

[11] *See Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991) (emphasis in original; internal citation omitted).

[12] *See Strycker's Bay Neighborhood Council v. Karlen,* 444 U.S. 223, 227-28 (1980); *Vermont Yankee Nuclear Power Corp. v. NRDC,* 435 U.S. 519, 558 (1978).

[13] *See* NUREG-1714 ''Draft Environmental Impact Statement [DEIS] for the Construction and Operation of an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshute Indians and the Related Transportation Facility in Tooele County, Utah'' (June 2000).

With regard to the key issue now before us, the DEIS not only examined at some length the Low Corridor Alignment, but also briefly considered — and summarily rejected — two alternative routes as well: (1) a corridor starting somewhere generally north of the site and running through the Valley parallel to and just east of Skull Valley Road (which appeared to have provided some of the basis for what eventually became the ''Central Skull Valley Alternative''); and (2) a corridor taking off from an existing rail spur — located south of the highway and east of the Stansbury Mountains — and passing between those mountains and I-80 and continuing south parallel to Skull Valley Road (eventually called the ''East Skull Valley Alternative''). DEIS at 2-42.

After SUWA opposed the rail line's Low location, the Applicant presented for discussion (but did not endorse) a different but related route not considered in the DEIS — the so-called West Skull Valley Alternative — that would avoid the lands SUWA thinks to be special (*see* p. 465, below). Although SUWA likewise does not endorse this route (Catlin Testimony (*see* p. 481, below), Post Tr. 4795, at 8), it does approve (*id.* at 7) of this alternative's recognition of wilderness considerations, for in this regard at least, it had the advantage, over the Low route, of bypassing the North Cedar Mountain Area (NCMA) and its alleged wilderness characteristics and potential for wilderness designation (*see* Section C, below).[14] The Staff's omission of the West Skull Valley Alternative became part of SUWA's challenge to the DEIS analysis as insufficient under NEPA for not considering all reasonable alternatives (*see* pp. 467-68, below).[15]

C. Wilderness Process and Constraints

Under the Federal Land Policy and Management Act of 1976, which adopts the definition of ''wilderness'' contained in the Wilderness Act of 1964 (16 U.S.C. § 1131(c), *see* note 32, below), the usual process by which an expanse overseen by the Bureau of Land Management (such as the North Cedar Mountain Area) achieves wilderness designation begins with BLM, after considerable study, including it on a list which the President may then recommend to the Congress for inclusion as wilderness. 43 U.S.C. §§ 1702(i), 1782(a), (b). Congress then

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[14] As will be seen, however, the Bureau of Land Management had rejected the NCMA for wilderness status because of its lack of wilderness characteristics. *See* pp. 465, 483-85, below.

[15] To counter the Applicant's and Staff's arguments that alternative routes did not pass muster because their environmental impacts exceeded that of the Low Corridor, SUWA suggested — but did not pursue and later appeared to disclaim (Tr. at 4912) — a West Valley variation that would run 2 to 3 miles (not just 2000 to 3000 feet) east of the Low route, thus not only avoiding the NCMA but also, in SUWA's belief, embodying reduced environmental impacts. In any event, the Staff demonstrated the lack of merit in this variation. *See* Staff Proposed Findings at 19, ¶ 2.28, and at 38, ¶ 2.76. *See also* pp. 471-72 and Findings ¶ 43, below.

makes the designation by selecting those areas from the President's list — or from elsewhere (*see* note 28, below) — that it deems worthy of protection and including them in legislation creating new wilderness areas. *Ibid.* (*See also* 16 U.S.C. § 1132, of similar import regarding National Forests, National Parks, and related federal lands overseen by other federal agencies.) Once an area is designated as wilderness, development therein — including railroads — is generally precluded.[16]

In this instance, the Bureau of Land Management some time ago dropped the North Cedar Mountains Area from consideration for wilderness designation due to the cumulative effect of human impacts in the area and the absence of opportunities for solitude. *See* 45 Fed. Reg. 75,602, 75,603-04 (1980). After SUWA submitted a 2001 proposal that the matter be reconsidered, the BLM found that there existed no new evidence in favor of reevaluating the area's wilderness characteristics. *See* FEIS at 2-49, 2-51.

D. Alternative Routes and Considerations

As indicated above, pursuant to NEPA a number of alternative routes for the rail line came to be considered in this licensing proceeding. These possible alternatives include the aforementioned West Skull Valley, Central Skull Valley, and East Skull Valley routes, each of which we now describe in more detail. *See also* Findings ¶¶ 35-58.

1. The West Skull Valley Alternative would begin at the same location as the Low Corridor Alignment, but would head east for a greater distance at the outset before turning south, so as to run some 2000 to 3000 feet east of the Low route for about 6 1/2 miles to avoid the NCMA before rejoining the Low route. Although this route would not intrude on the protected mudflats even further east (*see* #2, below), it would run through what is now a lower Skull Valley elevation than the Applicant's preferred route and, to accommodate railroad grade requirements, would thus require a much larger amount of fill and create related environmental concerns. Specifically, the West Skull Valley Alternative would follow undulating terrain for most of its 6 1/2-mile length (Staff Testimony, Post Tr. 4653, at 28) and be constructed on land that is 100 to 150 feet lower than the Low Corridor Alignment. *Ibid.* Because of the 1.5% grade limitation, together with the nature of the terrain, the West Skull Valley Alternative would have to be built up to 20 feet above the existing terrain. *Ibid.* This, in turn, would require that the rail line be built almost entirely on fill material, increasing construction costs (*see*

[16] *See* 43 U.S.C. § 1782(c), referencing 16 U.S.C. § 1131 *et seq.,* which, while providing generally that a wilderness area is to be devoted to ''recreational, scenic, scientific, educational, conservation and historical use,'' does allow certain other described activities but *ordinarily prohibits ''motorized equipment'' and ''other form of mechanical transport.*''

Donnell (p. 480, below), Post Tr. 4564, at 6-8) and creating serious environmental impacts (FEIS at 2-49) by requiring as much as 340,000 cubic yards of additional fill material that would not only have to be paid for but also have to be transported in (Staff Testimony, Post Tr. 4653, at 29).[17] Thirty-four thousand truck trips would be required to spread the fill along the line, dramatically increasing costs and impacts. *Ibid.*

The raised rail line — up to 20 feet above the surrounding terrain — would result in several other environmental concerns. It would have a marked visual impact and could interfere with access to roads and grazing allotments, as well as with the movement of wildlife and wildfire-fighting efforts. *Id.* at 28. Moreover, the rail alignment may injure some of the greasewood in the area, which is native, fire-resistant vegetation that grows at an elevation affected by this alternative route. *Cf.* Davis, Post Tr. 4564, at 3; Tr. 4928-29 (Catlin).

2. The Central Skull Valley Alternative would have the facility rail line run down the center of Skull Valley — where it would bisect protected mudflats and wetlands in the northern portion of that Valley, generating further adverse environmental impacts — having departed from the main line considerably east of the existing Low underpass and having crossed either over or under I-80. This crossing would require either that I-80 be raised to accommodate the rail line passing under it or that a bridge be built to carry the rail line over the Interstate. Staff Testimony, Post Tr. 4653, at 25. To raise I-80 would require that 3600 feet of that Interstate Highway not only be reconstructed but also be detoured during that process. *Ibid.* If, instead, the railroad were to pass over I-80, it would have to be raised over a very long distance, because braking and safety considerations require that the maximum railroad grade be no greater than 1.5%. *Ibid.* In other words, this alternative routing would present a major unresolved problem as to how to cross I-80. Findings ¶ 48.

As noted above, the construction of the Central Skull Valley Alternative would also require that the rail line bisect the mudflats, which are wetlands protected under the Clean Water Act. Due to that protected status, it is unlikely that the Army Corp of Engineers would allow the Applicant to fill the mudflat area if there are viable alternatives to doing so. And if such construction were allowed, the alignment would require a substantial amount of stabilizing fill, because the mudflat soil will not likely support the railroad. This fill would further disturb the wetlands, resulting in adverse environmental impacts. Findings ¶¶ 49-51.

The Central Skull Valley Alternative presents other environmental concerns, as well. The construction of the rail could directly impact wetlands at nearby Horseshoe Springs. FEIS at 2-47. The construction would also impact existing residents of houses and ranches, as well as traffic on Skull Valley Road. *Ibid.*

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[17] *Cf.* p. 491, below: Hayes Testimony (Post Tr. 4564) at 11 (260,000 cubic yards).

3. The East Skull Valley Alternative would have the facility rail line originate in a location east of Skull Valley and run south through the valley along the east side of Skull Valley Road. This option, or group of options, would involve either an existing underpass, a new underpass, a new bridge, or a new rock cut into the northern end of the Stansbury Mountains to link the spur to the main line north of I-80. As mentioned above, raising I-80 over the rail line or raising the rail line over I-80 presents the problem during construction of detouring traffic on a major interstate highway. Furthermore, the existing underpass would not provide sufficient clearance to meet requirements for carrying the spent fuel shipping casks. Finally, a new rock cut through the Stansbury Mountains would add environmental impacts to the project. In addition to these economic and environmental costs, this route would impinge on the wetlands areas near Horseshoe Springs. Findings ¶¶ 54-56.

As with the construction of the Central Skull Valley Alternative, the East Skull Valley Alternative would result in impacts to wetlands, houses, ranches, and traffic on Skull Valley Road. FEIS at 2-47. Moreover, because of the proximity of the railroad to the existing wetlands, homes, ranches, and Skull Valley Road, these impacts would continue throughout the operational phase of the East Skull Valley Alternative. Thus, the railroad would adversely affect the environment so long as it was operating. Staff Testimony, Post. Tr. 4653, at 26.

E. Prior Board Consideration

As framed by SUWA, the rail-line alternative issue was presented to the Board via ''Contention SUWA B — Railroad Alignment Alternatives,'' as follows:

> The License Application Amendment fails to develop and analyze a meaningful range of alternatives to the Low Corridor Rail Spur and the associated fire buffer zone that will preserve the wilderness character and the potential wilderness designation of a tract of roadless Bureau of Land Management (BLM) land — the North Cedar Mountains — which it crosses.

See Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-99-3, 49 NRC 40, 53 (1999).[18] In admitting SUWA B, the Board stated that it was doing so only insofar as ''it seeks to explore the question of alignment

[18] The Board granted SUWA party status and admitted Contention SUWA B on February 3, 1999; the Commission affirmed this ruling on April 15, 1999. CLI-99-10, 49 NRC 318 (1999). After the Staff published the DEIS in June 2000 and the FEIS in December 2001, the analyses in those documents became the subject of the contention. *See generally Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382, 383 n.44 (2002).

alternatives to the proposed placement of [the Applicant's proposed] Low Junction rail spur . . . .'' *Ibid.*

The Applicant later urged the Board that Contention SUWA B could be dismissed by way of summary disposition, arguing that no genuine issue of material fact remained for hearing in that the initial alternatives to the Low Corridor Alignment had been adequately evaluated by the NRC Staff and found wanting, as was the West Valley alternative that the Applicant had later proposed and investigated. The Board declined to grant summary disposition: not only was there no formal Staff evaluation of the West Valley alternative in the DEIS, but the Staff had also acknowledged that it was not yet in position to express even an informal opinion on the validity of the Applicant's material factual representations about that alternative. *See* LBP-01-34, 54 NRC 293, 303-04 (2001).

When the Applicant promptly requested that the Board reconsider its decision denying summary disposition, the Board rejected the Applicant's and the Staff's view that rather than have the Board's decision on the merits of an alternative await formal Staff evaluation of that alternative in the FEIS, the Board should proceed on the basis of an informal Staff review just then put forward. The Board thus again declined to take summary action on the contention pending the then-imminent publication of the final environmental impact statement (FEIS). *See* LBP-01-38, 54 NRC 490, 492, 494-95 (2001).[19]

Shortly thereafter, the Staff issued the FEIS.[20] In that document, the Staff analyzed not only the alignment alternatives previously considered in the DEIS (the Low Corridor and what became known as the East Skull Valley Alternative and the Central Skull Valley Alternative) but also the West Skull Valley Alternative suggested by the Applicant. Upon doing so, the Staff found that the Low Corridor Alignment remained the best option. The Staff based this decision on, among other things, its view that the other three options have more adverse impacts on the environment, as well as higher construction costs, than the Low Corridor rail alignment. *See* FEIS at 2-47 to -51; Donnell, Post Tr. 4564, at 4-5, 6-8; and Findings § E.

Perhaps in recognition of the Board's scheduling concerns (LBP-01-38, 54 NRC at 495 n.3), the Applicant did not renew its summary disposition request after the FEIS was filed (*see* January 17, 2002 Prehearing Tr. at 2848-49). Contention

[19] Up to this point, matters involving SUWA B had been in the hands of our predecessor Board, which had the same two technical members but was chaired by Chief Judge Bollwerk.

[20] *See* NUREG-1714 ''Final Environmental Impact Statement [FEIS] for the Construction and Operation of an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshute Indians and the Related Transportation Facility in Tooele County, Utah'' (December 2001).

SUWA B thereupon went to a 1 1/2-day full evidentiary hearing on April 23 and 24, 2002 (*see* Tr. 4545-4800, 4801-4982).[21]

Thereafter, the parties duly filed their two sets — initial and reply — of findings of fact and conclusions of law.[22] Based on the evidence adduced, SUWA urges the Board to find that the Staff failed to develop and to analyze a meaningful range of alternatives to the Low Corridor Rail Spur; on that basis, SUWA urges that the FEIS should be remanded to the Staff for further consideration of alternatives. PFS and the Staff, on the other hand, argue that the Board should find that the FEIS fully and properly evaluates all alternatives and should reject Contention SUWA B on its merits, thus granting approval to the Applicant's selected route.

F. Decision Rationale

Against that background, the issues before us are not particularly complex to describe. Similarly, the essence of our decision can be simply stated.

The first issue before this Board is whether over the course of the proceeding the Applicant and the Staff developed and analyzed an appropriate range of alternatives to the Low Corridor Rail Spur, taking into account the extent of the need, if any, to preserve the wilderness character of the NCMA. The second issue requires the Board to determine, based on the FEIS and the other evidence presented at the hearing, whether the Low Corridor rail alignment — the route selected by PFS and endorsed by the Staff — is an appropriate alternative to select from an environmental/wilderness standpoint, considering as well any other relevant offsetting or additional factors.

Before turning to the merits of those issues, we think it fitting to address several overarching arguments upon which SUWA relies to challenge the overall process that was employed in analyzing the rail-line alternatives in this proceeding. Based on the deficiencies alleged in those arguments, SUWA believes the matter should be remanded to the Staff to redo the entire process in proper fashion. As will be seen, we do not believe that those overarching arguments can survive scrutiny.

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[21] Although much of the foregoing Part I background discussion is taken from the DEIS/FEIS, the matters reflected therein were the subject of testimony, both direct and cross, which tested and essentially confirmed their validity.

[22] For initial filings, *see* Applicant's Proposed Findings of Fact and Conclusions of Law on Contention SUWA B (June 7, 2002); NRC Staff's Findings of Fact and Conclusions of Law Concerning Contention SUWA B (Rail Line Alignment Alternatives) (June 7, 2002); [SUWA's] Proposed Findings of Fact and Conclusions of Law Relative to Contention SUWA B (June 7, 2002). For replies, *see* Applicant's Reply to the Proposed Findings of Fact and Conclusions of Law of [SUWA] and the NRC Staff on Contention SUWA B (July 8, 2002); NRC Staff's Reply Findings of Fact and Conclusions of Law Concerning Contention SUWA B (Rail Line Alignment Alternatives) (July 8, 2002); Response of [SUWA] to the Proposed Findings of Fact and Conclusions of Law Filed by the NRC Staff and the Applicant Relative to Contention SUWA B (July 8, 2002).

1. Preemption of Ultimate Decisionmaking

SUWA argues first, and repeatedly, that the Staff's approach has preempted the role of the Licensing Board and cast the Staff as the ultimate decisionmaker. As we understand it, SUWA's complaint is that at various stages the Staff decided that particular alternatives were deficient and unworthy of further consideration; SUWA would have it, we further understand, that the Staff should have remained nonjudgmental and given each alternative full and equal consideration and thereby presented us with a neutral record upon which to begin our consideration of alternatives.

SUWA's argument misapprehends the nature of the agency's NEPA review process. With environmental issues, as with safety ones, the regulatory system is structured so that, in the absence of a hearing request coupled with a valid contention, the Staff makes the ultimate decision for the NRC. That being so, on all issues the Staff has a duty in the first instance to exercise its judgment and to make the decisions it believes warranted. Indeed, as to environmental issues, NRC regulations require the Staff to include its preliminary recommendations in the DEIS. 10 C.F.R. § 51.71(e).

To be sure, the Staff's judgments and decisions are subject to our review whenever a hearing request, an appropriate contention, and the supporting evidence call for it. As has been demonstrated previously in this proceeding (*see, e.g.,* note 1, above), we are not reluctant in appropriate circumstances to reject Staff positions. But, almost universally, any such rejection is not footed on general concerns about the Staff exceeding its role by taking a position, but on a specific determination that there are, on the merits, factual or legal deficiencies in the particular Staff position taken.

Here, we have not been pointed to any intrinsic bar, and we are aware of none, to the Staff's according some alternatives less consideration than others, when the Staff thought particular overriding, obvious factors disqualified an alternative from further consideration. If the Staff is thought to have erred in making such a judgment, it is open to a party to demonstrate that to be the case, as SUWA attempted to do here — but in the absence of such a demonstration, the Staff is not precluded from making such value judgments. Again, if a party shows those judgments to have been wrong, the Staff's having made them in no way preempts us — the (pen)ultimate agency decisionmaker — from exercising our authority to say so.

Put another way, the issues before us involve the legitimacy of judgments the Staff made, not the existence of the Staff's authority to make them. It was open to SUWA to challenge any such judgments at the hearing and to obtain from us — if the record warranted — rulings overturning them. Nothing about how the Staff here conducted *its* rightful environmental review trenched upon *our* authority to

make independent determinations on all the matters involved in or raised by that Staff review.

2. Avoidance of Real Alternatives

SUWA's next argument is that neither the Applicant nor the Staff brought forth legitimate alternatives. Rather, goes the essence of what SUWA urges, the alternatives presented were just straw men, or make-weights, designed to highlight the advantages of the Applicant-proposed and Staff-approved Low route.

Given the geography of Skull Valley and the existing layout of I-80 and the Union Pacific main line, we look at the matter differently — the alternatives considered represent a fair effort to exhaust the various conceptual approaches to reaching the Reservation by rail.[23] To be sure, each alternative is subject to any number of large or small variations that might change its environmental impact or balance to some degree. But if a conceptual alternative carries with it major disqualifying impacts, it may be possible to determine generically that no slight variation on that alternative will change the result; in any event, SUWA has failed to demonstrate that any particular variations exist that would change the result.

If the Staff, explicitly or implicitly, makes such a generic disqualifying statement, it is not only *open to* a project opponent to urge that the Staff is wrong, but *up to* that opponent to go forward in that regard. In other words, the burden of going forward with countering proposals and/or evidence shifts to the opponent; otherwise, the Staff and Applicant could face a never-ending series of ''what-if'' scenarios unsupported by any facts. Here, we believe the alternatives put forward were the conceptually legitimate ones; if better ones were thought by SUWA to exist, it was for SUWA to go forward — as it indeed attempted to do to some degree — with evidence that would have put those better alternatives into the mix.[24]

Indeed, as has been seen (note 15, above), SUWA did at one point suggest an alternative of its own — a variant on the Applicant-suggested West Valley alternative — but did not pursue it; on the merits, too, it warrants no further consideration (*ibid.*). The unvarnished suggestion that there were yet other,

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[23] It appears that SUWA's concerns about the depth of the Staff's consideration of alternative routes were triggered by the abbreviated nature of the Staff's initial discussion of them in the DEIS (at p. 2-42) (*see* p. 464, above). Although that abbreviated treatment might have been seen as a warning sign of possible substantive deficiencies, that discussion did put forward — albeit extremely succinctly — the obvious, major disqualifying factors to the adoption of those alternatives. Any concerns about thoroughness were cured by the Staff's testimony at the hearing, which served to put the matter fully to rest. *See* pp. 474-75 and Findings § E, below.

[24] What is not permissible, in the face of a colorable showing that all conceptually valid alternatives had been considered (albeit rejected), is for a project opponent to stand on the sidelines simply saying, in effect, that there may be other alternatives (without identifying them).

unspecified alternatives that should have been given consideration must, however, be rejected as insubstantial. *See* Tr. 4844-56 (cross-examination of Dr. Catlin).

3. Derogation of Wilderness Values

With the arguments discussed above being largely process-oriented, the linchpin of SUWA's substantive case involves the alleged impingement of the proposed rail line on wilderness values, a matter that is at the heart of SUWA's organizational purpose and activity. There are, however, two principal deficiencies in SUWA's wilderness-related arguments.

The first is that BLM, as the federal agency charged with making the recommendation to Congress as to the wilderness status of the North Cedar Mountain Area, has found that landform to be lacking in wilderness characteristics, a determination the same agency recently reaffirmed. And even if we had the authority to second-guess that determination — a proposition surrounded by considerable doubt — the BLM witnesses who testified before us provided ample support for the BLM disavowal of the area's wilderness characteristics.

Against that background and, again, even if we had the authority to second-guess this federal agency, we have no basis to do so here. To the contrary, even if the matter came to us *de novo,* we would, on the testimonial and documentary evidence before us, reach the same determination BLM did. In addition, that record evidence against wilderness character was fully consistent with, and corroborated by, our site visit — there was nothing we saw on that visit that caused us to question the testimony of the Staff-sponsored, BLM-employed witnesses.[25]

The second, and related, point is that the 800-acre portion of the NCMA that would lie to the east of the rail line is not only at a lower elevation than the 14,000-acre remainder, but as a topographic consequence is significantly less special in character than that far larger, more mountainous portion. Even more important, the evidence and the law make it abundantly clear that, even if the rail line's existence made the 800-acre portion ineligible for joinder with other lands subject to possible wilderness designation, to whatever degree the remaining 14,000 acres is currently eligible for designation, that eligibility will not be affected after the rail line is built. *See* p. 475, below.

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[25] Commission adjudicators have long employed site visits as a way of assisting in reaching sound decisions. *See, e.g., Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 84 (1977). There is certainly no doubt as to the propriety of a site visit where, as here, all parties not only concurred in the idea of conducting such a visit but also participated in it. As was done here, site visit observations may be relied upon as a way of confirming the evidence presented or, where disparities appear to emerge between the evidence adduced and a Board's site observations, as a trigger for resolving those disparities on the record through Board questions of witnesses and other similar techniques.

We need add only that SUWA's repeated focus on the asserted ''roadless'' character of the NCMA is unavailing. Even if we agreed with that characterization, meeting that criterion is necessary, *but not adequate,* to meet the ''wilderness'' test. As is clear from the BLM decision, the rationale for it, and the evidence before us — all confirmed by our site visit — the NCMA does not meet the other wilderness criteria.

In other words, on the one hand the lands in question are lacking in wilderness character by virtue of both (1) their legal characterization, as handed down by the federal agency with the expertise in the area; and (2) their factual description, as reflected in the evidence adduced before us. And on the other hand (even if they had such character), the creation of the proposed rail line would not appreciably alter their eligibility status.

This does not, however, end the inquiry. Even if the lands in question have no valid claim whatsoever to formal ''wilderness'' status, it is incumbent on this agency to consider the possible negative impact of the Applicant's proposal on those lands. *See* LBP-99-3 (above), 49 NRC at 51 n.6. We do so below (p. 475 and Findings ¶¶ 21-24).

4. Reliance upon Inventory Statements

In an effort to add gravitas to its claim that the NCMA has wilderness values worth protecting, SUWA quotes from assorted, apparently favorable, earlier BLM statements about those lands. The problem with this approach is that those BLM statements were made in *preliminary* documents urging only that the NCMA should be part of the inventory of lands being considered for wilderness status. The results of that consideration, reflected in the *final* BLM documents providing the full analysis of the inventoried lands, involved unfavorable conclusions in regard to the NCMA. *See* PFS Exh. JJ, *quoted in* Findings ¶ 18, below, and Staff Exh. H, *referred to* in Findings ¶ 20, below. The BLM action reflected in those two letters renders the earlier statements at best less than compelling and at worst nugatory.

As to matters of both procedure and substance, then, SUWA's overarching claims do not bear the weight SUWA would assign to them. We thus can turn to the specific matters before us for decision, involving the environmental and wilderness impacts of the proposal.

5. NEPA Analysis

The first issue involves a classic NEPA analysis of alternatives, in which the challenge is both to the procedure followed and to the result reached. When called

upon to rule, a Board must determine whether the Staff fell short in preparing the Environmental Impact Statement (EIS) and, if appropriate, make the necessary amendments. For example, if the Staff's statement is only marginally inadequate, a Board may amend or supplement it based on the evidence; if the Staff failed to perform its review function in some significant fashion, a remand to the Staff might be in order.

In determining whether analytical shortcomings exist in a NEPA analysis, the law is clear that not every possible hypothesis must be considered.[26] That being so, then as to procedural matters we think the NRC Staff approached the problem correctly as it prepared both the Draft and Final Environmental Impact Statements. *See* p. 471, above.

In any event, the evidentiary hearing before us led to full analysis of the alternative routes that were suggested, and a complete evidentiary record on them was created. Because the Board is (subject to Commission review) the decisionmaker for the agency relative to contested portions of the FEIS, any procedural defects that might have existed in the Staff analysis were cured by our full exploration, with SUWA's participation, of all the alternatives.

Put another way, as has long been the NRC rule, our decision after a hearing substantively amends the FEIS *pro tanto. See Allied-General Nuclear Services* (Barnwell Nuclear Fuel Plant Separations Facility), ALAB-296, 2 NRC 671, 680 (1975); *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), LBP-82-100, 16 NRC 1550, 1571 n.20 (1982); *see also* 10 C.F.R. §§ 51.102(c), 51.104(a)(3). It naturally follows that the hearing process we utilized — which here enabled SUWA to air its substantive concerns through direct testimony and exhibits of its own, as well as by cross-examination of the Applicant's and the Staff's witnesses — can serve to moot any earlier procedural inadequacies. Because SUWA's post-hearing papers do not question the adequacy of its opportunity before us to present its position fully and fairly, we can turn directly to the substance of the NEPA matters it presents.

On the merits, we need not pause to consider whether there is any difference between the standard the *courts* do apply under NEPA in *reviewing* agency environmental decisions (insisting only that the proverbial ''hard look'' have been taken), and the standard that *agencies* should apply in *reaching* decisions that appropriately integrate environmental and other values. *See generally Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-02-8, 55 NRC 171, 191 & n.41 (2002), *rev'd on other grounds,* CLI-02-20, 56 NRC 147 (2002). For the evidence before us makes clear that, from an environmental

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[26] As already indicated (*see* note 11, above), ''An agency's environmental review 'must consider not every possible alternative, but every *reasonable* alternative.' '' *See Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991) (quoting *Citizens for a Better Henderson v. Hodel,* 768 F.2d 1051, 1057 (9th Cir. 1985)).

standpoint, the proposed Low route is — under any standard — the best of the possible routes that have been suggested, whether by the Applicant, the Staff, or SUWA. *See generally* Findings §§ D-E.

In a nutshell, and as our Findings make clear, apart from the minor or transitory impacts that will be associated with the construction of any rail line, the Low route presents the best approach regarding potential major concerns — it will impinge the least on existing surroundings and will avoid the movement of anywhere near the quantities of earth and other disruptions that other routes would entail. With specific reference to the West Valley alternative, or the variation on it that SUWA once mentioned as preferable, neither offers benefits beyond those offered by the Low Corridor (given our finding below that SUWA has not sustained its assertion that the Low Corridor will cause adverse wilderness impacts), and each adds a number of adverse environmental impacts.

6. Wilderness Analysis

The question remains as to whether the proposed route improperly impinges on wilderness values. As a factual matter, we can say — based on the comprehensive evidence before us (which was fully consistent with what was observed on the site visit we made in the company of all parties) — that the ''imprint of man'' (*see* note 32, below) seen in existing land uses and appearances (*see* Findings ¶¶ 18-24) is already so noticeable that the rail line will not constitute a significant impingement from a wilderness standpoint.

As to the legal issue of the impact the rail line might have on the potential designation of the North Cedar Mountain Area as an official ''wilderness'' area, the hearing revealed that the Bureau of Land Management had determined that, even without the rail line, the area fell short in terms of the statutory wilderness characteristics that would allow BLM to recommend to Congress it be given that status. On the other hand, if Congress — which alone has real authority to confer wilderness designations[27] — nonetheless were to determine that the land should be so designated, the presence of the rail line would not preclude its doing so.[28]

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[27] *See* pp. 464-65, above, and Catlin Testimony, Post Tr. 4795, at 6 (A9).

[28] For example, in the final days of the 107th Congress a year ago, Utah's retiring House Member James Hansen attempted to insert language (from a bill he had introduced earlier) into the Bob Stump National Defense Authorization Act for Fiscal Year 2003 to create a 500,000-acre wilderness area in

(Continued)

In sum, despite the effort that SUWA, drawing upon its acknowledged wilderness proficiency, has put into opposing the Applicant's proposed transport route, its key arguments have, upon analysis, turned out not to withstand scrutiny. SUWA's post-hearing papers include other, less substantial arguments; to the extent warranted, we have either already dealt with those arguments explicitly or implicitly, or will do so in Part II of this opinion.[29]

G. Result

As none of the proposed alternative routings offers benefits beyond those offered by the Low Corridor Alignment, and all result in additional environmental impacts, the Board finds that the Low Corridor routing would unquestionably be the environmentally superior alignment for connecting the Union Pacific main line to the Applicant's proposed facility. Moreover, the Low Corridor's passage through the NCMA has no significant impact on wilderness values or characterization.

On Contention SUWA B, then, for the rationale expressed above, the Board finds for the Applicant PFS (and the NRC Staff) and against Intervenor SUWA, and holds that the contention therefore provides no bar to the Applicant's proposed rail-line route. In the subsequent parts of this opinion, we explain certain aspects of our reasoning in greater detail, and present our findings and conclusions in more formal fashion.

Utah's west desert. The proposed area included the Cedar Mountains and thus its designation would presumably have blocked the transport through it of radioactive waste to the Applicant's facility. It was reported that the provision was excluded from the final version of the Act by House and Senate negotiators, however, because of a dispute over language allowing the military to continue to utilize the so-styled ''wilderness'' area (under the failed language, the military would have retained exclusive rights to overflights and installation of testing and training equipment in the area). *See* H.R. 2488, 107th Cong. (1st Sess. 2001); and Robert Gehrke, *Hansen's Effort to Block Nuclear Waste Dies,* Salt Lake Tribune, Nov. 13, 2002, at D2.

In the current session of the 108th Congress, a similar proposal emerged. *See* H.R. 2909, 108th Cong. (1st Sess. 2003); and Christopher Smith, *Bill Could Block Nuke Dump,* Salt Lake Tribune, July 26, 2003, at B1. Congressman Rob Bishop of Utah sponsored this House bill to create a new federal wilderness that would include the Cedar Mountain area. This new bill also provides for military training, testing, and low-level overflights in the area.

As these bills illustrate, the ultimate power over wilderness designations and uses is in Congress's hands. Any new legislation it enacts on that score can override previously enacted principles, as well as moot any analysis of those principles that we may have conducted.

[29] To the extent that any of SUWA's minor arguments are not addressed herein, it is either because we have determined that a response to them is unnecessary to our decision or because, in rejecting them, we simply intend to rely upon the reasoning reflected in the post-hearing briefs of the Staff and/or Applicant, which we adopt to that extent.

II. DETAILED ANALYSIS AND FINDINGS OF FACT

In this part of our decision, we provide the detail underlying the rationale expressed in the Part I narrative. We first cover, in Section A (pp. 477-78), the contention at issue, then, in Part B (pp. 478-80), discuss the applicable legal standards; in Part C (pp. 480-81), we set out the qualifications of all the witnesses; in Part D (pp. 481-89), we describe the proposed rail line and its relationship to, and impact upon, the North Cedar Mountain Area; and finally, in Part E (pp. 489-94), we examine — and reject — the alternative rail-line routings.

A. Contention SUWA B

1. In Contention SUWA B, that organization alleged that:

> The License Application Amendment fails to develop and analyze a meaningful range of alternatives to the Low Corridor Rail Spur and the associated fire buffer zone that will preserve the wilderness character and the potential wilderness designation of a tract of roadless Bureau of Land Management (BLM) land — the North Cedar Mountains — which it crosses.

LBP-99-3, 49 NRC at 53. The Board admitted the contention so far as ''it seeks to explore the question of alignment alternatives to the proposed placement of [the Applicant's proposed] Low Junction rail spur.'' *Id.* In affirming the Licensing Board's decision to admit this contention, the Commission agreed with the Board that ''SUWA can litigate the question whether, in the circumstances of this case, NEPA requires PFS and the Staff to consider alternative rail routes that might prove more environmentally benign than PFS's chosen route.'' CLI-99-10, 49 NRC at 327.

2. SUWA asserts that the NCMA possesses wilderness characteristics and is suitable for wilderness designation under the Wilderness Act of 1964.[30] ''Contentions''[31] at 2. SUWA defines the NCMA as a roadless area just west of Skull Valley and just south of Interstate 80 and the Union Pacific main-line railroad. *See id.* at 3; *id.,* Exhibit 2 (map). The area is a rough polygon about 5.5 miles wide by 7 miles long. Donnell Testimony (*see* p. 480, below), Post Tr. 4564, at 3; *see* Exhibit 2 to Contentions (map); FEIS Fig. 2.16. The boundaries of the area

[30] As the Board explained during the hearing, while the wilderness characteristics of the NCMA are at issue in this proceeding, whether Congress would or would not designate the area as wilderness is outside the scope of the contention and in any event is not for us to attempt to predict. Tr. at 4561. *See also* notes 27-28, above.

[31] [SUWA's] Contentions Regarding [PFS] Facility License Application (The Low Rail Spur) (Nov. 18, 1998).

for which SUWA makes its claim were set by the Utah Wilderness Coalition, a group of private organizations of which SUWA is a member. *See* ¶ 19, below.

3. The proposed rail line (the ''Low Corridor'' rail line) will run from the Union Pacific main line at Skunk Ridge near Low Junction, Utah, approximately 32 miles east, south, and east again to the Applicant's site in central Skull Valley. FEIS Fig. 1.2. As part of its north-to-south run, it will cross the far eastern portion of the NCMA, separating a sliver of land approximately 1/2 to 3/4 of a mile wide and less than 3 miles long from the remainder of the area. *See* Exh. 2 to Contentions; SWEC Drawing DY-SK-19-A (PFS Exh. CC); Overview of Low Corridor (PFS Exh. EE); FEIS Fig. 2.16. That sliver of land constitutes about 800 acres out of the roughly 14,000 acres in the NCMA. Tr. at 4838-39 (Catlin).

4. SUWA asserts that the Low rail line would ''irreversibly impair the wilderness character of the North Cedar Mountains.'' Contentions at 4. SUWA claims that the Applicant should have adequately considered alternatives to the Low rail line that would protect the wilderness character of the NCMA and preserve for Congress the opportunity to designate the area as wilderness. *Id.* at 5-6.

B. The Applicable Legal Standards

5. Three statutes set forth the legal standards relating to Contention SUWA B. They are NEPA; the Federal Land Policy and Management Act of 1976, as amended (FLPMA); and the Wilderness Act of 1964, whose definition of ''wilderness'' is incorporated in the FLPMA.

6. NEPA (42 U.S.C. §§ 4331 *et seq.*) and the implementing regulations the Commission has promulgated require that the FEIS describe the potential impacts of the proposed action on the environment and discuss reasonable alternatives to the action. 10 C.F.R. §§ 51.71(d), 51.90. In 10 C.F.R. Part 51, the Commission established a comprehensive set of regulations addressing its responsibilities under NEPA. Pursuant to 10 C.F.R. Part 72, an applicant for an ISFSI must file an environmental report. 10 C.F.R. §§ 51.60(b)(iii) and 51.45. Following the environmental scoping process, the Staff must issue a DEIS, which is to include a preliminary analysis that considers and weighs the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects. 10 C.F.R. §§ 51.70 and 51.71(d). The Staff then must issue its FEIS, based on a review of information provided by the applicant, information provided through comments on the DEIS, and information and analysis that the Staff itself obtains. 10 C.F.R. § 51.97(a). The discussion of environmental impacts should be sufficient ''to enable the decisionmaker to take a 'hard look' at environmental factors and to make a reasoned decision.'' *LES* (above), CLI-98-3, 47 NRC at 88 (citations omitted).

7. An environmental impact statement (EIS) must look at ''alternatives available for reducing or avoiding adverse environmental effects.'' 10 C.F.R. § 51.71(d). The ''rule of reason'' guides ''both the choice of alternatives as well as the extent to which the [EIS] must discuss each alternative.'' *City of Carmel-by-the-Sea v. DOT,* 123 F.3d 1142, 1155 (9th Cir. 1997) (internal citation omitted). Thus, the discussion ''must consider not every *possible* alternative, but every *reasonable* alternative.'' *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991) (first emphasis added, citation omitted). Hence, NEPA does not require the consideration of alternatives that are impractical, *Airport Neighbors Alliance v. United States,* 90 F.3d 426, 432 (10th Cir. 1996); that present unique problems; or that cause extraordinary costs, *Communities, Inc. v. Busey,* 956 F.2d 619, 627 (6th Cir. 1992), *cert. denied,* 506 U.S. 953 (1992). Nor does NEPA require the consideration of speculative ''alternatives which could only be implemented after significant changes in governmental policy or legislation.'' *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 145 (1993) (internal citations omitted). NEPA also does not require the consideration of alternatives that ''are not significantly distinguishable from alternatives actually considered.'' *Headwaters, Inc. v. BLM,* 914 F.2d 1174, 1181 (9th Cir. 1990), *reh'g en banc denied,* 940 F.2d 435 (1991). ''[A]n agency's consideration of alternatives is sufficient if it considers an appropriate range of alternatives, even if it does not consider every available alternative.'' *Id.* Moreover, NEPA does not require the selection of the most environmentally benign alternative if ''other values outweigh the environmental costs.'' *LES,* CLI-98-3, 47 NRC at 88 (quoting *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350 (1989)).

8. Under FLPMA, the Secretary of the Interior is the federal official responsible for reviewing BLM land for potential designation as wilderness. The Secretary reviews ''those roadless areas of five thousand acres or more . . . of the public lands, identified . . . as having wilderness characteristics described in the Wilderness Act''[32] and reports to the President on ''the suitability or nonsuitability

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[32] The Wilderness Act, 16 U.S.C. §§ 1131 *et seq.,* which imposes similar requirements and processes for areas within national forests, national parks, national wildlife refuges, and national game ranges, characterizes a wilderness as an area that

> (1) generally appears to have been affected primarily by the forces of nature, with *the imprint of man's work substantially unnoticeable;* (2) has *outstanding opportunities for solitude* or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

16 U.S.C. § 1131(c) (emphasis added).

of each such area . . . for preservation as wilderness.'' 43 U.S.C. § 1782(a).[33] The President must then recommend to Congress which areas should be designated as wilderness, but Congress is to make the final designation by passing a statute. 43 U.S.C. § 1782(b). FLPMA requires the Secretary to maintain an inventory of BLM lands and ''their resource and other values.'' 43 U.S.C. § 1711(a). The Secretary has claimed continuing authority under this provision to evaluate lands for potential wilderness designation. *Babbitt* (note 33, this page), 37 F.3d at 1207.

C. Witness Qualifications

9. The Applicant presented three witnesses in support of the application. These were: (1) John Donnell, a Licensed Professional Engineer, who is the Project Director for PFS, and is responsible for the execution and integration of the legal and technical activities of the PFS project (''Testimony of John Donnell on Contention SUWA B—Railroad Alignment Alternatives'' (''Donnell''), Post Tr. 4564, at 1); (2) Douglas Hayes, a Civil Design Engineer for Stone & Webster — a Shaw Group Company, who is the Lead Railroad Design Engineer on the PFS project, and is responsible for layout and development of construction drawings and railroad construction specifications for the proposed Low Corridor rail line (''Testimony of Douglas Hayes on Railroad Alignment Alternatives Contention SUWA B'' (''Hayes''), Post Tr. 4564, at 1-2); and (3) Susan Davis, who is a Senior Environmental Scientist for Stone & Webster — a Shaw Group Company, who assessed the impacts of the PFS transportation option, including those on vegetation, wildlife, and threatened and endangered species (''Testimony of Susan Davis on Railroad Alignment Alternatives Contention SUWA B'' (''Davis''), Post Tr. 4564, at 1-2). We found these witnesses qualified to testify as they did.

10. The Staff presented a panel of witnesses concerning this contention. These were: (1) Britta N. Laub, an Outdoor Recreation Planner for BLM's Salt Lake Field Office (SLFO), who assisted the Staff in its evaluation of the potential environmental impacts related to the Applicant's proposed construction and operation of the transportation facilities associated with the proposed ISFSI and

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[33] The Secretary's review process involves the following phases:

> (1) the ''inventory'' phase, consisting of (a) an ''initial inventory'' to identify ''wilderness inventory units,'' which were defined as roadless areas of 5000 acres or more that may have wilderness characteristics, and (b) an ''intensive inventory'' of these units to determine whether the units possessed wilderness characteristics and, if so, designation of the units as ''wilderness study areas'' (''WSAs''); (2) the ''study'' phase, during which WSAs were studied to determine whether the lands were suitable for designation as wilderness; and (3) the ''reporting'' phase, consisting of the Secretary's recommendations to the President and the President's recommendations to Congress.

Utah v. Babbitt, 137 F.3d 1193, 1198 (10th Cir. 1998) (citations omitted).

alternatives to those facilities, and assisted in the preparation of the Staff's FEIS; (2) Kenneth E. McFarland, a principal engineer with Washington Infrastructure Services, Inc., in San Ramon, California, which is a third-party contractor with the U.S. Surface Transportation Board, who reviewed and verified the amount of cut and fill necessary to construct both the Applicant's proposed Low Corridor rail line and the West Valley rail alternative, and reviewed the engineering issues associated with rail-line alternatives originating north of Interstate 80, and the quantities of excavation and embankment (''cut and fill'') materials associated with a rail-line alternative, suggested by SUWA, that would lie approximately 2 miles to the east of the Applicant's proposed Low Corridor rail line; (3) Alice B. Stephenson, an Environmental Specialist for BLM's SLFO, who assisted the NRC Staff in its evaluation of the potential environmental impacts related to the Applicant's proposed construction and operation of the transportation facilities associated with the proposed PFSF and alternatives to those facilities, and assisted in the preparation of the Staff's DEIS and FEIS; and (4) Gregory P. Zimmerman, the Leader of the Environmental Impact Analysis Group in the Environmental Sciences Division at the Oak Ridge National Laboratory in Oak Ridge, Tennessee, who assisted the NRC Staff in its evaluation of the potential environmental impacts related to the Applicant's construction and operation of the proposed PFSF and its associated transportation facilities, and assisted in the preparation of the Staff's DEIS and FEIS. *See* ''NRC Staff Testimony of Britta N. Laub, Kenneth E. McFarland, Alice B. Stephenson, and Gregory P. Zimmerman Concerning Contention SUWA B (Rail Line Alignment Alternatives)'' (''Staff Testimony''), Post Tr. 4653, at 1-5. We found these witnesses qualified to testify as they did.

11. SUWA presented one witness, Dr. James C. Catlin, in support of its contention. Dr. Catlin is project director of the Wild Utah Project, based in Salt Lake City, and provides conservation biology and computer mapping services to the conservation community in Utah. ''Testimony of James C. Catlin on the Wilderness Character of the North Cedar Mountains Contention SUWA B'' (''Catlin''), Post Tr. 4795, at 1. In addition, following PFS's oral rebuttal testimony by Mr. Hayes and Ms. Davis, SUWA presented oral rebuttal testimony by Dr. Catlin. Tr. 4980-81. We found this witness qualified to testify as he did.

D. The Proposed Rail Line and the North Cedar Mountains

12. Skull Valley is a topographical valley located approximately 50 miles west of Salt Lake City, Utah, and about 22 miles east of the Great Salt Lake Desert. As shown in Figure 1.1 of the FEIS, Skull Valley is bounded on the east by the Stansbury Mountains and on the west by the Cedar Mountains. FEIS (Staff Exh. E) at 1-2. The northern end of Skull Valley lies just south of Great Salt Lake. The valley is generally about 10 miles wide (east-to-west), although the width

varies at different latitudes, and is about 30 miles long (north-to-south). Staff Testimony, Post Tr. 4653, at 8. The proposed project area within Skull Valley is shown in Figure 1.2 of the FEIS. Staff Exh. E at 1-3. The floor of Skull Valley at the location of the proposed PFS facility is at an elevation of approximately 4450 to 4490 feet above mean sea level. Staff Testimony, Post Tr. 4653, at 9.

13. Existing transportation facilities in or near Skull Valley are limited to a single rail line and a few paved roadways. As shown in Figure 1.2 of the FEIS, I-80, running in a generally east-west direction, lies at the northern end of Skull Valley, approximately 25 miles north of the location of the proposed facility. Staff Exh. E at 1-3. The Union Pacific main rail line, also running in a generally east-west direction, similarly lies at the northern end of Skull Valley to the north of I-80, except where the rail line passes under (and then lies south of) the Interstate near the proposed Low (or Skunk Ridge) rail siding to the west of Skull Valley. In addition, a spur from the Union Pacific main line also passes under (and south of) I-80 in the valley to the east of the Stansbury Mountains. *Id.* A two-lane, paved road (identified as ''Skull Valley Road'' in Figure 1.2 of the FEIS) runs in a generally north-south direction in the eastern portion of the valley, passing approximately 2 miles east of the proposed facility. Staff Testimony, Post Tr. 4653, at 9; Staff Exh. E at 1-3.

14. The specific details of the proposed rail line are described in section 2.1.1.3 of the FEIS (*id.* at 2-14 and 2-15), and are depicted in cross section in Figure 2.5 of the FEIS (*id.* at 2-17). As described in section 2.1.1.3 of the FEIS (*id.* at 2-14 and 2-15), the right-of-way would be 200 feet wide, with the rail bed itself being 40 feet wide. This 40-foot width would contain a 17-foot-wide area filled with ballast (i.e., 2-inch maximum sized rock for use as base material for the crossties and rails), on which would rest a standard-gauge single track (a pair of rails 4 feet 8 1/2 inches apart). That ballast area in turn rests on a 34-foot-wide layer of sub-ballast material, with a 3-foot-wide cleared area on each side of the sub-ballast. An additional ''temporary use area'' of 50 feet on each side of the 200-foot permanent right-of-way would also be needed for topsoil stockpiles and other construction uses. Any of the remaining right-of-way that is disturbed during construction would be revegetated using the native seed mix recommended by the BLM. The top of the completed rail line would be approximately 4.5 feet above the surrounding terrain. Staff Testimony, Post Tr. 4653, at 10-11.

15. The Applicant's proposed Low Corridor rail line would cross the eastern-most part of the NCMA as it heads south from Skunk Ridge, near Low Junction, to the PFS site. At that point, it would be at 4380 feet above mean sea level (Staff Testimony, Post Tr. 4653, at 11), meaning it would have to rise at least 70 feet in its run to the facility (Findings ¶ 12, above), and would have to rise even more if it were moved farther east down into the Valley. As indicated on maps submitted by the Applicant and by the testimony of Dr. Catlin, the proposed rail line would cross the NCMA for less than 3 miles and separate about 800

acres of land from the roughly 14,000 acres of the NCMA. Tr. at 4838 (Catlin); PFS Exh. EE. Because the separated parcel of the far easternmost portion of the NCMA would be less than 5000 acres, that parcel standing alone would be legally precluded from being designated as wilderness. *See* 43 U.S.C. § 1782(a); 16 U.S.C. § 1311(c)(3). The rail line would not, however, preclude the remainder of the NCMA from being designated as wilderness, in that the area would be larger than 5000 acres and human imprints *outside* potential wilderness areas, e.g., roads and railroads, are *not* normally considered in their evaluation. Bureau of Land Management, Wilderness Inventory and Study Procedures, H-6310-1 (Jan. 10, 2001) at 13, 16-17 (SUWA Exh. 6); Tr. at 4756 (Laub); Tr. at 4839-43, 4937 (Catlin).[34]

1. The Wilderness Characteristics of the North Cedar Mountains

16. As already noted, the NCMA lies at the northern end of the Cedar Mountains, and encompasses an irregular area approximately 7 miles long (north to south) by 5 miles wide (east to west). The NCMA lies to the north of the existing Cedar Mountain Wilderness Study Area, which is an area designated as such and defined by the BLM.

17. The FLPMA required BLM to perform an inventory of certain public lands having certain characteristics. BLM was to study the suitability of public lands for preservation as wilderness based on four criteria, namely: (1) size (contains at least 5000 acres); (2) naturalness (affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable); (3) outstanding opportunities for solitude or a primitive and unconfined type of recreation; and (4) may contain supplemental values (ecological, geological, or other features of scientific, educational, scenic, or historical value). For an area to qualify for study under the FLPMA, it must satisfy all of the first three of these criteria; satisfaction of the fourth criterion is optional. *See* Staff Testimony, Post Tr. 4653, at 15-16; *cf. Sierra Club v. Hodel,* 848 F.2d 1068, 1085 (10th Cir. 1988) (quoting district court explanation of BLM's application of FLPMA criteria in designating wilderness study areas).

18. In 1980, as part of its responsibility to review certain lands for potential designation as wilderness, BLM inventoried the North Cedar Mountains and ''dropped them from further consideration as wilderness because of lack of

[34] If roads and railroads *outside* potential wilderness areas *were* considered in their evaluation, I-80 and the Union Pacific main line immediately to the north of the NCMA would quite plainly be viewed as substantial human imprints that would themselves significantly reduce the ''naturalness'' of the area and thus render the impact of the PFS rail line superfluous in that regard. *See* Tr. at 4839-43, 4937 (Catlin) (the entire area must meet the naturalness criterion to qualify as wilderness and highways and railroads would not satisfy the criterion).

wilderness characteristics . . . .'' 45 Fed. Reg. 75,602, 75,603-04 (1980); Staff Testimony, Post Tr. 4653, at 16-17. In doing so, BLM stated:

> The lack of ''outstanding'' potential, or opportunity for solitude and/or primitive and unconfined recreational experience should drop [the North Cedar Mountains area] from further wilderness inventory consideration. Man's imprints are substantially noticeable within the unit. Natural screening contributes little to hide or enclose man and his contrasting influences. Recreation opportunities exist but all are encumbered by man's developments.

BLM Intensive Wilderness Inventory, Final Decision on Wilderness Study Areas, Utah (November 1980) (''Wilderness Inventory'') (PFS Exh. JJ). The FEIS similarly concurred that the NCMA lacks wilderness characteristics:

> [T]he North Cedar Mountains contains no wilderness or wilderness study designation and contains no wilderness values or characteristics. In 1980, BLM considered the northern portion of the Cedar Mountains for designation as wilderness during its Utah land inventory process. The area was found to lack naturalness (i.e., it did not fit the attributes of being affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable); outstanding opportunities for solitude or a primitive and unconfined type recreation; and supplemental values (i.e., ecological, geological, or other features of scientific, educational, scenic, or historical value).

FEIS at 2-49. Testimony from Staff witnesses Stephenson and Laub (both BLM employees) explained how these conclusions were reached. Staff Testimony, Post Tr. 4653, at 18-23.

19. SUWA disputes the conclusions of the 1980 BLM inventory with respect to the North Cedar Mountains. Catlin, Post Tr. 4795, at 5. SUWA claims, based on a 1998 survey of BLM lands by the Utah Wilderness Coalition (a group of private organizations of which SUWA is a member), that the NCMA possesses wilderness characteristics. *Id.* at 4-5. SUWA points out that, in performing its survey, the Coalition set the boundaries of the NCMA to exclude human imprints that were within the area that BLM had inventoried in 1980. *Id.* at 5. SUWA claims that the NCMA possesses the same opportunities for solitude and the pursuit of primitive recreation as the Cedar Mountains Wilderness Study Area to the south. *Id.* at 4. It also claims that the NCMA possesses supplemental values in the form of critical wildlife habitat, area dominated by native habitat, and rock art and potential archaeological sites related to ancient humans. *Id.* at 4-5.

20. In April 2001, SUWA submitted a proposal asking BLM to revisit its 1980 decision on the NCMA. BLM concluded that the SUWA proposal did not constitute significantly new or different relevant information that would warrant further review of the area. FEIS at 2-49, 2-51; Letter from G. Carpenter, Field

Office Manager, Salt Lake Field Office, BLM, to S. Bloch, Staff Attorney, SUWA (May 8, 2001) (Staff Exh. H). BLM specifically rejected SUWA's claim that the Utah Wilderness Coalition's new boundaries for the NCMA excluded the human imprints that were part of the reason BLM had found the area lacked wilderness characteristics in 1980. Staff Exh. H at 3. BLM also noted additional human imprints in the area that had occurred since 1980. *Id.* at 4.[35]

21. The eastern portion of the NCMA, i.e., the portion of the NCMA east of the proposed Low Corridor rail line, consists of relatively smooth terrain, covered by grasses and greasewood, which slopes downward from the eastern edge of the North Cedar Mountains themselves toward the floor of Skull Valley. As shown in photographs of the area, it is topographically distinct from the mountains. *See* Photographs of Low Corridor Area (files DSCN1363, 1367, 1382) (PFS Exh. GG); Point 2W, Photo 75 (Staff Exh. L); Point 5W, Photo 79 (Staff Exh. N); Point 7W, Photo 85 (Staff Exh. O). All of the parties described specific human imprints that exist or activities that occur there. They include: motorcycle paths; use of off-highway vehicles and extensions of vehicle routes; livestock trails and grazing; invasive, nonnative plant species such as cheatgrass; wildfire rehabilitation projects; and trash left by human visitors to the area. Staff Testimony, Post Tr. 4653, at 18; Donnell, Post Tr. 4564, at 3; Davis, Post Tr. 4564, at 3-4; *see* Tr. at 4835, 4944, 4948, 4955 (Catlin). Some of these imprints (cattle grazing, vehicle paths, and cheatgrass invasion) were depicted in the photographs referred to above. *See also* Map of ''Jeep'' Trails Near Low Corridor (PFS Exh. II); Staff Testimony, Post Tr. 4653, at 21.

22. The NRC Staff witnesses testified that the eastern portion of the NCMA also does not offer outstanding opportunities for solitude or a primitive and unconfined type of recreation. Staff Testimony, Post Tr. 4653, at 22. This is due to sparse vegetative cover, relatively open terrain, and the cumulative effect of the human impacts in the area. *Ibid.* Recreational opportunities are not outstanding because wildlife population and numbers are few, terrain for hiking and horseback riding is not unique, and sightseeing is encumbered by outside activities and human impacts in the area. *Ibid.* Dr. Catlin asserted that the NCMA had the same opportunities for solitude and recreation as the Cedar Mountains WSA to the south. Catlin, Post Tr. 4795, at 4. As the basis for his claim, Dr. Catlin referred to topography, vegetation, and ''incised canyons and ridgetops'' (*ibid.*), but admitted that those characteristics are comparable to those of the Cedar Mountain WSA only at the higher elevations of the NCMA, well above the area where the proposed rail line will be located. *See* Tr. at 4877, 4879 (Catlin).

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[35] SUWA appealed BLM's rejection of its claim. SUWA Notice of Appeal, Statement of Reasons, Request for Stay (June 21, 2001) (SUWA Exh. 3). The request for a stay was subsequently denied. *See* Tr. at 4556.

23. NRC Staff witnesses also indicated that any supplemental values that would suggest that the area possessed wilderness characteristics were elsewhere than in the eastern portion of the NCMA. *See* Staff Testimony, Post Tr. 4653, at 22-23. Rock formations and caves are present in the northern portion of the NCMA (but not the area crossed by the rail line), but even those are not unique and not particularly significant. *Id.* at 22. Sites of historical interest, such as Hastings Pass, exist on the edges of or just outside the area, but not in the portion to be crossed by the rail line. *Id.* at 23. Dr. Catlin testified that the NCMA contained supplemental values in that it provides critical wildlife habitat and is a place ''where native habitat dominates.'' Catlin, Post Tr. 4795, at 4. Critical habitat assessments performed for the project showed, however, that no critical habitat in the NCMA extended down to the elevations where the rail line would be located. Tr. at 4620, 4636-37, 4640-41, 4973-75 (Davis); *see* FEIS at 3-27 (map of mule deer critical habitat); *see also* Tr. at 4883-85 (Catlin) (producing no maps indicating the presence of critical habitat). In fact, rather than being dominated by native habitat, all parties acknowledged that the Low Corridor area has been extensively invaded by cheatgrass, a nonnative plant species. FEIS at 3-24; Tr. at 4666 (Stephenson); Davis, Post Tr. 4564, at 3; Tr. at 4858-59 (Catlin). Wild horses live in the NCMA, but they are feral horses introduced to the area by man. Tr. at 4859-60 (Catlin). Dr. Catlin asserted in his written testimony that the NCMA contained rock art and potentially archaeological sites related to ancient humans (Post Tr. 4795 at 5), but upon cross-examination was unable to point to such resources in the Low Corridor area (Tr. at 4886-88).

24. On the basis of all the material before us — i.e., the findings of BLM regarding the character of the NCMA; the description of the area in the FEIS; and the testimony of the witnesses regarding the human imprints, the limited opportunity for recreation and solitude, and the absence of supplemental values in the easternmost portion of the NCMA — as corroborated by our observations during the visit to the area, we find that the part of the NCMA to be traversed by the proposed Low Corridor rail line and the portion east of the rail line lack wilderness characteristics. The question we are evaluating here is the impact of locating the proposed facility's rail line in an area asserted to be natural wilderness. *See* LBP-01-34, 54 NRC at 302 & n.4. It is not whether the area could possibly be restored to a natural state at some time in the future. Therefore, because we find that the entire NCMA area, especially that lying east of the proposed rail line, lacks wilderness character, we find that the rail line would have no adverse wilderness impact.

2. Environmental Impacts of the Proposed Rail Line

25. In addition to asserting that the proposed rail line would impact wilderness by virtue of its planned location in the NCMA, SUWA also asserted that the

rail line would cause specific environmental impacts, including: scenic impacts, habitat fragmentation and loss of biodiversity, impacts arising from increased access to the area, railroad fire hazards, facilitation of the spread of exotic plant species, disruption of natural runoff patterns, harmful impacts of herbicides, and impacts on springs and small wetlands. Catlin, Post Tr. 4795, at 6-7. We find (*see* ¶¶ 26-34, below) that all of the asserted impacts are adequately discussed in the FEIS and the testimony and are either small or do not significantly differ between rail-line alignment alternatives, or both.

26. The scenic impacts of the rail line are described in the FEIS as small to moderate, depending on the perspective of the viewer. FEIS § 5.8.2. The Applicant and the Staff testified that the scenic impact of the rail line would be no less if it were moved to an alternative location. Davis, Post Tr. 4564, at 8-9; Tr. at 4625-27 (Davis), 4776 (Laub); Staff Testimony, Post Tr. 4653, at 28. Our site tour corroborated these views. For his part, Dr. Catlin offered no comparison of the scenic impact of the proposed rail line with any alternative. *See* Catlin, Post Tr. 4795, at 6.

27. The FEIS states that ''[b]ecause wildlife in Skull Valley do not exclusively use any particular portion of the valley, the presence of the new rail line would not significantly contribute to habitat fragmentation, segregation, or interruption of habitat connectivity.'' FEIS at 5-16. Nor would it significantly affect the movement of wildlife in the valley. *Ibid.* Dr. Catlin offered no specific information as to how habitat fragmentation (and associated loss of biodiversity) would occur, other than to say that the rail line would traverse an area SUWA believes contains wilderness characteristics. *See* Catlin, Post Tr. 4795, at 6. Therefore, we do not anticipate that the proposed rail line will cause habitat fragmentation or loss of biodiversity.

28. Dr. Catlin's belief that the proposed rail line will lead to environmental impacts from increased access to the area stemmed from speculation that there would be an access or maintenance road constructed alongside the rail line. *See* Catlin, Post Tr. 4795, at 6; Tr. at 4821-24 (Catlin). There will, however, be no such road. Hayes, Post Tr. 4564, at 3; Preliminary Plan of Development, Right of Way Application U-76985, Private Fuel Storage L.L.C. — Rail Line at 3 (Staff Exh. AA). Furthermore, an existing dirt road (which forms the eastern edge of the NCMA) already runs parallel to and about half a mile east of the Low Corridor route and a jeep trail runs parallel to the Low Corridor route between the route and the road. *See* PFS Exh. EE; PFS Exh. II; Photo Locations for Proposed PFS Railroad Project (Staff Exh. I). A second jeep trail runs perpendicular to the Low Corridor route, from the eastern edge of the NCMA westward into its interior. *See* PFS Exh. II; PFS Exh. GG (file DSCN1382). Therefore, the proposed rail line will not lead to greater access to the area with associated environmental impacts.

29. Dr. Catlin also testified more generally that the PFS railroad was part of the ''rapid industrialization'' of this part of the State of Utah, citing the presence

of communication sites, other transportation facilities, an incinerator on the far side of the North Cedar Mountains, a magnesium plant north of Skull Valley, a chemical weapons disposal facility on the other side of the Stansbury Mountains, and a military proving ground in southern Skull Valley. Tr. at 4944-45. Dr. Catlin acknowledged, however, that the incinerator had been present for ''a fair number of years,'' as had the chemical weapons disposal facility; the magnesium plant had been there for several decades and the military proving ground had been there since World War II. Tr. at 4960-61. We find that the development of industrial facilities over a very wide area over a period of decades does not qualify as ''rapid industrialization.'' Moreover, Dr. Catlin offered no testimony that the facilities that now exist or any future facilities, other than the Applicant's itself, are in any way connected to the construction of the rail line.

30. The FEIS states that the proposed rail line ''would not add significantly to the existing risk of fire in Skull Valley.'' FEIS at 5-73. This is due to the Applicant's planned use of modern railroad equipment, the railroad's small contribution to fire risk in Skull Valley relative to other potential contributors to risk, and the Applicant's planned revegetation of the railroad construction right-of-way with a BLM-approved, fire-resistant vegetation seed mix. *Id.* § 5.8.4; *id.* at 5-22. In addition, the railroad bed adjacent to and beneath the tracks will be maintained free of vegetation, which will mitigate the risk of fire. Hayes, Post Tr. 4564, at 3-4; Staff Testimony, Post Tr. 4653, at 10-11. Dr. Catlin offered that a rail line through the mudflats in central Skull Valley would pose a lesser risk of fire. Catlin, Post Tr. 4795, at 7. But as discussed below, a central Skull Valley alternative would cause other significant environmental impacts and may not be permissible under federal regulations that protect wetlands and other types of waters. Therefore, the Board finds that the small fire hazard posed by the proposed rail line does not render it inferior to any alternative rail alignments.

31. SUWA asserts that the proposed rail line would facilitate the spread of exotic plant species in the area because of the fire hazard and the disruption of the natural fire regime of the area caused by ''[t]he Low Corridor's rail line, road, and associated fire buffers.'' Catlin, Post Tr. 4795, at 7. As discussed above, there will be no road associated with the proposed rail line and the fire hazard posed by the rail line will be small. Both the Applicant and the Staff testified that there will be no ''fire buffer'' associated with the rail line, aside from the railroad bed itself, which will be maintained clear of vegetation. Hayes, Post Tr. 4564, at 3-4; Staff Testimony, Post Tr. 4653, at 10-11. In addition, the rail-line construction right-of-way will be revegetated with a BLM-approved seed mix consisting mostly of native vegetation, which could have a positive impact on vegetation. FEIS at 5-15 to -16; Hayes, Post Tr. 4564, at 3-4. We therefore find that the rail line would not contribute to the spread of exotic species in the area.

32. SUWA claimed that the proposed rail line would disrupt natural runoff patterns in the NCMA and affect the vegetation nearby, because the natural flow

of water would be diverted from many small meanders into a smaller number of culverts. Catlin, Post Tr. 4795, at 7. The Applicant testified, however, that it plans to emplace culverts of at least 24 inches in diameter to preserve the natural flow in all of the drainage paths across the Low Corridor that are now larger than 6 inches deep. Tr. at 4975 (Hayes). The corridor would cross thirty-two such intermittent or ephemeral drainages. FEIS at 5-17. The culverts would maintain the natural flow condition in the corridor and hence would not have a significant impact on vegetation. Tr. at 4975-76 (Davis); FEIS at 5-17, 5-20.

33. SUWA also claimed that the use of herbicides on the rail line has the potential to disrupt the vegetation in the area. Catlin, Post Tr. 4795, at 7. On that score, the FEIS takes a contrary view:

> EPA's labeling requirements control when and under what conditions herbicides can be applied, mixed, stored, or used (e.g., wind speed, relative humidity, air temperature, chemical persistence, time since last rainfall). By following these requirements, PFS would ensure that the impacts on non-target vegetation from the use of herbicides during the operational lifetime of the rail line would be small.

FEIS at 5-19. Because Dr. Catlin provided no reason to call into question here either the efficacy of EPA labeling requirements or the Applicant's projected compliance with them, we find that the use of herbicides on the rail line would not be expected to have a significant impact on nontarget vegetation. In addition, Dr. Catlin testified that the impact of herbicide use on the Low Corridor rail line would be similar to the impact of herbicide use on the West Skull Valley Alternative route. Tr. at 4916, 4925-26, 4928.

34. Finally, SUWA asserted through Dr. Catlin that the proposed rail line would have adverse impacts on springs and small wetlands. Catlin, Post Tr. 4795, at 7. On cross-examination, however, Dr. Catlin conceded that the portion of the rail line that crossed the NCMA would not impact any springs or wetlands. Tr. at 4828-29; *see* Tr. at 4960 (no riparian areas in Low Corridor).

E. Railroad Alignment Alternatives

35. The Applicant and the NRC Staff considered a range of alignment alternatives to the proposed Low Corridor rail line. At the time the Low Corridor rail line was first proposed in 1998, the Applicant had considered one alternative, the East Skull Valley Alternative, which was envisioned with a number of different starting points but for most of its length was to run along Skull Valley Road, down the eastern side of Skull Valley. Donnell, Post Tr. 4564, at 3-4; PFSF Transportation Study (SWEC 1998) § 3.3 (PFS Exh. HH); PFS ER § 4.4 (Rev. 0) (PFS Exh. BB). The DEIS considered two routes, each with a different starting point, that would end up running down the Valley on the east side of Skull Valley

Road. DEIS at 2-42. The Applicant subsequently considered a West Skull Valley Alternative, on the west side of the valley, which avoided the NCMA by skirting it to the east and a Central Skull Valley Alternative that would run down the middle of the valley to the PFS site. Donnell, Post Tr. 4564, at 5-6.

36. The FEIS retains the DEIS's assessment of the earlier alternatives and also assesses the West Skull Valley Alternative. FEIS at 2-47 to -51. In its testimony, the NRC Staff considered a SUWA-suggested variation on the West Skull Valley alternative that would run approximately 2 miles east of the NCMA. Staff Testimony, Post Tr. 4653, at 32-33. Thus, the Applicant and the FEIS considered three basic alternatives to the alignment of the proposed Low Corridor rail line: ones beginning in the west, the central, and the east portions of Skull Valley. The Applicant and the Staff concluded that none of the alternatives is environmentally superior to the proposed Low Corridor Alignment. Donnell, Post Tr. 4564, at 8; Staff Testimony, Post Tr. 4653, at 26-27, 31-32, 34.

1. The West Skull Valley Alternative

37. The NRC Staff and the Applicant considered an alternative rail-line alignment on the west side of Skull Valley that would completely avoid the NCMA by passing just to the east of it. Donnell, Post Tr. 4564, at 6; Hayes, Post Tr. 4564, at 6; FEIS Fig. 2.16; PFS Exhibits CC and EE. This alternative alignment would start at the same point as the proposed Low Corridor rail line but would change course slightly as it approached the NCMA to run about 2000 to 3000 feet east of the Low Corridor Alignment for about 6.5 miles. FEIS at 2-49; Hayes, Post Tr. 4564, at 6. Just south of the NCMA, the West Skull Valley Alternative would rejoin the Low Corridor Alignment and would continue south to the Reservation. Hayes, Post Tr. 4564, at 6; *see* FEIS Fig. 2.16.

38. The route of the West Skull Valley Alternative just to the east of the NCMA is constrained by two narrow gaps through which it must pass. The first gap is at the northern end of the alternative alignment, about 2½ miles south of I-80: the rail spur would have to pass east of the NCMA but stay west of a parcel of land owned by the State of Utah. Avoidance of the State-owned land is essential because of the Applicant's apparently well-founded belief that the State would not allow the use of its land for the location of the railroad. *See* LBP-01-34, 54 NRC at 299 n.3; Tr. at 4577, 4585-87 (Donnell). In any event, as discussed further below, routing the alternative rail line farther to the east, across the State-owned land, would cause additional environmental impact with no countervailing environmental benefit. The second gap is along the southern part of the alternative alignment, about 4 miles south of I-80, where the spur must stay west of the large mudflat in the middle of Skull Valley. Hayes, Post Tr. 4564, at 6; PFS Exhibits CC and EE. The mudflat must be avoided because it is

protected from disturbance by federal regulations promulgated under the Clean Water Act. Davis, Post Tr. 4564, at 8-9; 33 C.F.R. § 330.4(a) and (e).

39. The route of the West Skull Valley Alternative crosses down into lower elevations toward the valley floor such that the railroad bed would require the use of a significant amount of fill material so as not to exceed the maximum grade for which the facility's trains are to be designed. Hayes, Post Tr. 4564, at 7-10; FEIS at 2-49. The maximum grade of the Applicant's rail line (other than at sidings) is to be 1.5%, based on the best fit of locomotive tractive effort and horsepower. That 1.5% maximum grade is set to enable PFS trains to move at a reasonable speed. Hayes, Post Tr. 4564, at 5; Staff Testimony, Post Tr. 4653, at 28; Tr. at 4606-07, 4636 (Hayes); FEIS at 2-49. Main-line railroads typically employ grade limitations less than 1.5%. Tr. at 4607, 4636 (Hayes).

40. Total net fill material required over the 6 ½-mile length of the West Skull Valley Alternative rail alignment is some 560,000 cubic yards.[36] Hayes, Post Tr. 4564, at 10; Staff Testimony, Post Tr. 4653, at 28-30; FEIS at 2-49. The embankments on which the railroad bed would be constructed would be as high as 20 feet above grade. Hayes, Post Tr. 4564, at 8; Staff Testimony, Post Tr. 4653, at 30; FEIS at 2-49. Dr. Catlin questioned PFS's rail-line grade and fill requirement calculations but he had performed no calculation of fill requirements and had no basis for claiming that PFS's calculations were wrong. Tr. at 4853-54, 4899-4902.

41. The construction of a siding area for the Low Corridor rail line where it joins the Union Pacific main line near Low Junction would generate a surplus of some 255,000 to 300,000 cubic yards of fill material above what is needed for fill elsewhere on the Low Corridor line. The West Skull Valley Alternative would require substantial additional fill — somewhere between 260,000 and 340,000 cubic yards (*cf.* note 8; pp. 465-66; and Findings ¶ 40, above, and Tr. at 4669-72 (McFarland)) — which would need to be imported from an offsite location. Hayes, Post Tr. 4564, at 10; Staff Testimony, Post Tr. 4653, at 29; FEIS at 2-49.

42. The environmental impacts of the West Skull Valley Alternative would be greater than the impacts of the proposed Low Corridor rail line because of the need to use more fill material, and because the railroad bed would have to be elevated by as much as 20 feet above the ground level. Davis, Post Tr. 4564, at 7-8; Staff Testimony, Post Tr. 4653, at 30; FEIS at 2-51. That greatly raised railroad bed would have a greater visual impact. Davis, Post Tr. 4564, at 8; Tr. at 4776 (Laub). It could also interfere with access to roads and grazing and to fight wildfires in the North Cedar Mountains. Davis, Post Tr. 4564, at 7-8; Staff Testimony, Post Tr. 4653, at 28; FEIS at 2-49.

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[36] Net fill is the total amount of fill required over the length of the alternative rail line minus the amount of earth that would be cut (to lower the elevation of the railroad relative to the terrain) over the length of the line. *See* Tr. at 4670 (McFarland).

43. Moving the West Skull Valley Alternative farther east (into land held by the State of Utah) would require even more fill, as the ground elevation decreases as one moves farther east. Hayes, Post Tr. 4564, at 10-11; Staff Testimony, Post Tr. 4653, at 33. For example, moving the route 2 miles east of the Low Corridor would require about 50% more fill than the West Skull Valley Alternative. Staff Testimony, Post Tr. 4653, at 33. This would result in an even greater adverse environmental impact. *Ibid.* Therefore, other alignments on the west side of the valley that crossed into State-owned land, even if feasible, would be inferior both to the West Valley Alternative and to the proposed Low Corridor Alignment.

44. Aside from the impacts of the fill material and the raised railroad bed, the proposed Low Corridor line and the West Skull Valley Alternative would have similar (small) environmental impacts. Davis, Post Tr. 4564, at 6-7; Staff Testimony, Post Tr. 4653, at 31. Dr. Catlin agreed that the environmental impacts of rail lines generally were similar, independent of whether they might be built inside or outside of the NCMA. Catlin, Post Tr. 4795, at 8.

45. With respect to wilderness issues, Staff witnesses Laub and Stephenson testified that the West Valley rail alternative does not cross areas possessing wilderness characteristics. Staff Testimony, Post Tr. 4653, at 30. The Staff concluded that the impacts to wilderness values from the proposed Low Corridor rail line do not differ significantly from the impacts expected from the West Valley rail alternative. *Id.* at 31. The Staff's conclusion is based on the fact that none of the areas located near the two routes, including the area referred to by SUWA as the NCMA, has any wilderness or wilderness study area designation, or contains wilderness values or characteristics. *Ibid.* The Applicant's evidence also supports this position. Davis, Post Tr. 4564, at 3-8.

46. SUWA witness Catlin testified that the West Valley rail alternative would have an advantage over the Low Corridor Alignment in that it would not traverse the NCMA. Catlin, Post Tr. 4795, at 7. Having found that the area of the NCMA that the proposed Low Corridor rail line would cross does not have wilderness characteristics, as set forth above, the Board finds this asserted advantage illusory and therefore not consequential.

47. Because of the greater environmental impacts arising from the increased fill requirements and the failure of the alternative to preserve wilderness values, we find that the proposed Low Corridor rail alignment is superior to the West Skull Valley Alternative alignment, and to the SUWA-suggested route further east, even without considering the additional construction costs that would accompany those environmentally less-preferable alternatives.

2. The Central Skull Valley Alternative

48. The Applicant considered an alternative railroad alignment — the Central Skull Valley Alternative — that would pass down the center of Skull Valley from

the Union Pacific main line south to the PFSF. Donnell, Post Tr. 4564, at 5. The Central Skull Valley Alternative would first have to cross I-80, in that the Union Pacific main line runs on the north side of I-80 from Salt Lake City until reaching Low Junction on the west side of Skull Valley. Staff Testimony, Post Tr. 4653, at 25-26; FEIS at 2-47. Crossing I-80 would present construction difficulties and cause environmental impacts because of the need either to raise I-80, creating a bridge over the new rail line, or to build a bridge for the rail line to cross over I-80. Staff Testimony, Post Tr. 4653, at 25-26; *see also* p. 466, above.

49. The northern end of the center of Skull Valley is covered by mudflats and adjacent wetlands, which provide a specialized habitat for a variety of shorebirds and other animals. The mudflat habitat is classified and protected as waters of the United States under section 404 of the Clean Water Act. Davis, Post Tr. 4564, at 8-9. The mudflats are clearly visible in photographs of the Low Corridor area. *See* PFS Exh. GG (file DSCN1375, 1380).

50. A center-of-the-valley route would require the mudflats to be bisected by a rail line, disrupting the habitat and requiring substantial fill. Davis, Post Tr. 4564, at 9; *see* Staff Testimony, Post Tr. 4653, at 33. Furthermore, it is unlikely that the Applicant would be permitted to fill long tracts of the mid-valley mudflats when alternatives on the east and west sides of Skull Valley are feasible and would not impact any mudflats or waters of the United States. Davis, Post Tr. 4564, at 9; 33 C.F.R. § 330.4(a) and (e).

51. Building a rail line across the mudflats would also present construction difficulties because of the need to support the weight of the railroad in the mudflat soil, which is potentially unstable and unsuitable for a railroad bed. Tr. at 4849-50 (Catlin). The entire length of the rail line built through mudflats would have to be built on fill material. Staff Testimony, Post Tr. 4653, at 33.

52. Other than the impact on wetlands and mudflats and the impacts resulting from crossing I-80, the Central Skull Valley Alternative and the proposed Low Corridor rail line would have similar (small) environmental impacts. Davis, Post Tr. 4564, at 9.

53. Because of the greater environmental impacts that would result from routing the rail line through the wetlands and mudflats and from crossing I-80, we find that the proposed Low Corridor rail alignment is superior to the Central Skull Valley Alternative alignment, even without considering the additional construction costs that would accompany that environmentally less-preferable alternative.

3. The East Skull Valley Alternatives

54. The Applicant and the NRC Staff also considered railroad alignments that would run south to the site from the Union Pacific main line, along Skull Valley Road, on the east side of Skull Valley — the East Skull Valley Alternatives

— as potential alternatives to the currently proposed Low Corridor Alignment. Donnell, Post Tr. 4564, at 3; PFS Exh. HH; FEIS at 2-47; Staff Testimony, Post Tr. 4653, at 25-27. The East Skull Valley Alternatives would use one of the following: (1) the existing underpasses below I-80 (Donnell, Post Tr. 4564, at 4); (2) a new bridge over I-80 (*ibid.;* Staff Testimony, Post Tr. 4653, at 25); (3) a new underpass created by raising I-80 (*ibid.*); or (4) a new rock cut in the north end of the Stansbury Mountains that would allow the rail line to connect with the Union Pacific main line east of those mountains, where it already lies to the south of I-80 (Donnell, Post Tr. 4564, at 4; Staff Testimony, Post Tr. 4653, at 26; *see also* FEIS at 2-47).

55. The existing Skull Valley Road underpasses under I-80 would not provide sufficient clearance to meet railroad requirements for a train carrying a loaded spent fuel cask. Donnell, Post Tr. 4564, at 4. Building a new bridge over I-80, raising I-80 over the new rail line, or making a rock cut around the north end of the Stansbury Mountains would all add significant environmental impacts to the project. *Ibid.;* Staff Testimony, Post Tr. 4653, at 25-27; *see* FEIS at 2-47.

56. Regardless of their starting points, the East Skull Valley Alternatives would, as they ran alongside Skull Valley Road, likely impact the wetlands near Horseshoe Springs. FEIS at 2-47. Compared to the proposed alignment from Low Junction that requires obtaining a right-of-way only from BLM, an alignment along Skull Valley Road would also require right-of-way agreements with other landowners along the road, particularly private and State of Utah interests. Davis, Post Tr. 4564, at 10. Finally, the East Skull Valley Alternatives would also have impacts on existing houses and ranches and traffic on Skull Valley Road. *Ibid.;* FEIS at 2-47.

57. Other than the impacts discussed above, the East Skull Valley Alternatives and the proposed Low Corridor Alignment would have similar (small) environmental impacts. Davis, Post Tr. 4564, at 10-11.

58. Because of the greater environmental impacts that would result from crossing I-80 and from running the rail line alongside Skull Valley Road, we find that the proposed Low Corridor Alignment is superior to the East Skull Valley Alternative rail alignments, even without considering the additional construction costs that would accompany those environmentally less-preferable alternatives.

III. CONCLUSIONS OF LAW

This Licensing Board has considered all of the material presented by the parties on Contention SUWA B. Based upon our review of the evidentiary record relative to this contention and of the two sets (initial and reply) of proposed findings of fact and conclusions of law submitted by the parties, and in accordance with the views set forth in Parts I and II, above — which we believe are supported by a

preponderance of the reliable, material, and probative evidence in the record — the Board has decided the matters in controversy concerning this contention and reaches the following legal conclusions in favor of the Applicant Private Fuel Storage, L.L.C., and the NRC Staff:

1. Pursuant to the National Environmental Policy Act, the Staff is required to consider all reasonable alternatives to the proposed Low Corridor rail line, and it did so in this instance.

2. The Final Environmental Impact Statement and the parties' testimony herein describe and assess a reasonable range of alternative alignments to the proposed Low Corridor rail line.

3. None of those alternative alignments is environmentally superior to the proposed Low Corridor rail line; to the contrary, they are all demonstrably inferior.

4. Whether or not we would have jurisdiction to reach a different conclusion, on the record before us we agree with BLM's determination that the lands described by the Southern Utah Wilderness Alliance as the ''North Cedar Mountain Area'' do not contain sufficient wilderness values or characteristics to warrant either designation or protection on that basis.

5. As compared to the proposed Low Corridor, any minimal wilderness-related advantages that might be gained by alternative rail-line routes would be more than offset by the substantial environmental disadvantages of those alternatives.

6. The agency's Final Environmental Impact Statement is amended *pro tanto* to incorporate the facts found, the determinations made, and the conclusions reached herein.

Accordingly, for the reasons set forth herein, we find that the Applicant has met its burden with respect to Contention SUWA B and we rule in its favor thereon:

Contention SUWA B (rail-line alternatives) is RESOLVED on the merits in favor of the Applicant Private Fuel Storage, L.L.C. (and the NRC Staff) and against the Intervenor Southern Utah Wilderness Alliance.

Pursuant to 10 C.F.R. § 2.760(a), this Partial Initial Decision will constitute the FINAL ACTION of the Commission within forty (40) days of this date unless a petition for review is filed in accordance with 10 C.F.R. § 2.786(b), or the Commission directs otherwise.

Within fifteen (15) days after service of this Partial Initial Decision (which shall be considered to have been served by regular mail for the purpose of calculating that date), any party may file a PETITION FOR REVIEW with the Commission on the grounds specified in 10 C.F.R. § 2.786(b)(4). The filing of a petition for

review is mandatory in order for a party to have exhausted its administrative remedies before seeking judicial review. 10 C.F.R. § 2.786(b)(1).

Within ten (10) days after service of a petition for review, any party to the proceeding may file an ANSWER supporting or opposing Commission review. 10 C.F.R. § 2.786(b)(3).

The petition for review and any answers shall conform to the requirements of 10 C.F.R. § 2.786(b)(2)-(3).

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Michael C. Farrar, Chairman
ADMINISTRATIVE JUDGE

Jerry R. Kline*
ADMINISTRATIVE JUDGE

Peter S. Lam
ADMINISTRATIVE JUDGE

Rockville, Maryland
December 31, 2003

Copies of this Partial Initial Decision were sent this date by Internet e-mail transmission to counsel for (1) Applicant PFS; (2) Intervenors Southern Utah Wilderness Alliance, Skull Valley Band of Goshute Indians, OGD, Confederated Tribes of the Goshute Reservation, and the State of Utah; and (3) the NRC Staff.

*Judge Kline participated in the deliberations that led to this Decision and agreed with the reasoning and conclusions expressed herein but was not available to sign the final version.

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Advanced Medical Systems, Inc. (One Factory Row, Geneva, Ohio 44041), CLI-94-6, 39 NRC 285, 306-07 (1994), *aff'd, Advanced Medical Systems, Inc. v. NRC,* 61 F.3d 903 (6th Cir. 1995)
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American Mining Congress v. Thomas, 772 F.2d 617, 621 (10th Cir. 1985)
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Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991)
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Armed Forces Radiobiology Research Institute (Cobalt-60 Storage Facility), ALAB-682, 16 NRC 150, 155 (1982)
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Boston Edison Co. (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44, 45 (1982)
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Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370 (2001), *petition for review denied sub nom. Orange County v. NRC,* 2002 WL 31098379 (D.C. Cir. 2002)
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Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 382 (2001), *petition for review denied sub nom. Orange County v. NRC,* 2002 WL 31098379 (D.C. Cir. 2002)
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Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 383 (2001)
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Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 383-86 (2001)
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Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 385-86 (2001), *petitions for review denied,* 47 Fed. Appx. 1 (2002) (per curiam)
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Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 388 (2001), *petition for review denied sub nom. Orange County v. NRC,* 2002 WL 31098379 (D.C. Cir. 2002)
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Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-00-12, 51 NRC 247, 254-55 (2000), *petition for review denied,* CLI-01-11, 53 NRC at 390-92
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Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 746 (1985)
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Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 746 n.8 (1985)
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Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), LBP-83-46, 18 NRC 218, 223 (1983)
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Committee to Save the Rio Hondo v. Lucero, 102 F.3d 445, 448 (10th Cir. 1996)
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Consumers Power Co. (Big Rock Point Nuclear Plant), ALAB-725, 17 NRC 562, 568 & n.10 (1983)
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Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 359 (2001)
if a petitioner in a contention fails to offer any specific explanation, factual or legal, for why the consequences that the petitioner fears will occur, then the requirements of the contention rule are not satisfied; LBP-03-12, 58 NRC 81, 87 (2003); CLI-03-14, 58 NRC 213 (2003)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 359-60 (2001)
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Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 360 (2001)
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Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 361 (2001)
the contention rule does not require a specific allegation or citation of a regulatory violation, but a petitioner is obliged to include references to the specific portions of the application that the petitioner disputes and the supporting reasons for each dispute; LBP-03-12, 58 NRC 81 (2003)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 361-62 (2001)
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the contention rule does not require a specific allegation or citation of a regulatory violation, although supporting reasons for a contention are required; LBP-03-17, 58 NRC 256 n.9 (2003)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 364 (2001), *reconsideration denied,* CLI-02-1, 55 NRC 1 (2002)
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Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-02-1, 55 NRC 1, 2 (2002)
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Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-7, 55 NRC 205, 213 (2002)
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Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-7, 55 NRC 205, 214 n.15 (2002)
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Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335 (2002)
terrorism issues are being addressed generically and thus are not appropriate for litigation in individual proceedings; LBP-03-12, 58 NRC 94 (2003)

Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 417 (2001)
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Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 214 (2001)
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Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 215 (2001)
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Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358 (2002)
terrorism issues are being addressed generically and thus are not appropriate for litigation in individual proceedings; LBP-03-12, 58 NRC 94 (2003)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382, 383 n.44 (2002)
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Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 387 (2002)
contention admission is precluded where intervenor presents no facts to support its position and contemplates using discovery or cross-examination as a fishing expedition to produce relevant facts; LBP-03-12, 58 NRC 88 (2003)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), LBP-02-4, 55 NRC 49, 67-68 (2002)
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Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328 (1999)
to be admissible, a contention must specify the particular issue of law or fact the petitioner is raising and briefly explain the bases of the contention, giving a concise statement of the alleged facts or expert opinion that support the contention and upon which petitioner will rely in proving the contention at the hearing; CLI-03-14, 58 NRC 213 (2003)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333 (1999)
a contention should refer to specific documents or other sources of which petitioner is aware and intends to rely in establishing the validity of the contention; CLI-03-14, 58 NRC 213 (2003)
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Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999)
contention requirements seek to ensure that NRC hearings adjudicate genuine, substantive safety and environmental issues placed in contention by qualified intervenors; CLI-03-14, 58 NRC 213 (2003)
petitioners may not seek an adjudicatory hearing to attack generic NRC requirements or regulations, or to express generalized grievances about NRC policies; CLI-03-14, 58 NRC 218 (2003)
the contention rule is strict by design because, in prior years, licensing boards admitted and litigated numerous contentions that were based on little more than speculation; LBP-03-12, 58 NRC 80-81 (2003); LBP-03-17, 58 NRC 260 (2003)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334-35 (1999)
NRC's contention rule is strict by design because, in prior years, licensing boards admitted and litigated numerous contentions that were based on little more than speculation; CLI-03-14, 58 NRC 213 (2003)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334-35, 338-39, 342 (1999)
NRC standing and contention rules are designed to screen out those without sufficient interest or knowledge to litigate safety or environmental issues meaningfully; CLI-03-14, 58 NRC 219 n.71 (2003)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 335 (1999)
contention admission is precluded where intervenor presents no facts to support its position and contemplates using discovery or cross-examination as a fishing expedition to produce relevant facts; LBP-03-12, 58 NRC 88 (2003); LBP-03-17, 58 NRC 230 (2003)
contentions that are material and supported by reasonably specific factual and legal should be admitted; LBP-03-17, 58 NRC 260 (2003)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 337-39 (1999)
contentions are barred where petitioners have only generalized suspicions that they hope to substantiate later or simply desire more time and information to identify a genuine material dispute for litigation; CLI-03-17, 58 NRC 424 (2003)

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Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 343 (1999)
agencies are free to determine issues on a case-by-case basis through adjudication or generically through rulemaking; CLI-03-7, 58 NRC 6-7 (2003)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)
a matter subject to a pending (or impending) rulemaking is not an appropriate subject for a contention unless waiting for the rulemaking to be final would delay the license renewal proceeding; LBP-03-17, 58 NRC 254 n.6 (2003)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 388 (1999)
petitioners must raise and reasonably specify at the outset their objections to a license application; CLI-03-17, 58 NRC 427 (2003)

Duke Power Co. v. Carolina Environmental Study Group, 438 U.S. 59, 74 (1978)
even a small or minor unwanted radiological exposure, even one well within regulatory limits, is sufficient to establish standing to intervene in a Subpart L proceeding; LBP-03-27, 58 NRC 414 (2003)

Duke Power Co. (Amendment to Materials License SNM-1773 — Transportation of Spent Fuel from Oconee Nuclear Station for Storage at McGuire Nuclear Station), ALAB-528, 9 NRC 146, 150 (1979)
a limited appearance statement is rejected as an adequate alternative means to protect an intervenor's interest; LBP-03-17, 58 NRC 235 n.3 (2003)

Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 403-04, *reconsideration denied,* ALAB-359, 4 NRC 619 (1976)
the Commission has the authority to make its own de novo findings of fact; CLI-03-8, 58 NRC 25 (2003)

Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 467 n.12 (1982)
discovery on the subject matter of a contention can be obtained only after the contention has been admitted to the proceeding; LBP-03-17, 58 NRC 230 (2003)

Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790 (1985)
a presiding officer generally has only the jurisdiction and power delegated by the Commission and that delegation generally is made by notice of hearing or opportunity for hearing; LBP-03-13, 58 NRC 100 (2003)

Duke Power Co. (Perkins Nuclear Station, Units 1, 2, and 3), ALAB-591, 11 NRC 741, 742 (1980)
authority of presiding officer to rule on questions regarding the existence or scope of his or her own jurisdiction; LBP-03-13, 58 NRC 100 (2003)

Duke Power Co. (Perkins Nuclear Station, Units 1, 2, and 3), LBP-82-81, 16 NRC 1128, 1134-35 (1982)
repeated submission and withdrawal of decommissioning plans may be weighed in determining whether to condition or even permit withdrawal; LBP-03-13, 58 NRC 102 n.5 (2003)

Duquesne Light Co. (Beaver Valley Power Station, Units 1 and 2), CLI-99-25, 50 NRC 224, 226 (1999)
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Environmental Defense Fund, Inc., v. Corps of Engineers, 348 F. Supp. 916, 933 (5th Cir. 1972)
an EIS must be written in language that is understandable to nontechnical minds and yet contain enough scientific reasoning to alert specialists to particular problems within the field of their expertise; LBP-03-17, 58 NRC 259 (2003)

Environmental Defense Fund, Inc., v. Corps of Engineers, 492 F.2d 1123, 1136 (5th Cir. 1974)
the amount of detail required in an EIS should be sufficient to enable those who did not have a part in its compilation to understand and consider meaningfully the factors involved; LBP-03-17, 58 NRC 259 (2003)

Fansteel, Inc. (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 202 (2003)
a state's sovereign capacity to protect the welfare of its citizenry and a proprietary interest in the natural resources within its boundaries give it standing to challenge a decommissioning plan; LBP-03-22, 58 NRC 368 (2003)

Fansteel, Inc. (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 202-05 (2003)
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Fansteel, Inc. (Muskogee, Oklahoma Facility), LBP-99-47, 50 NRC 409, 413-14 (1999)
a state's sovereign capacity to protect the welfare of its citizenry and a proprietary interest in the natural resources within its boundaries give it standing to challenge a decommissioning plan; LBP-03-22, 58 NRC 368 (2003)

Fansteel, Inc. (Muskogee, Oklahoma Facility), LBP-03-22, 58 NRC 363, 367 (2003)
a state's sovereign capacity to protect the welfare of its citizenry and a proprietary interest in the natural resources within its boundaries give it standing to challenge a decommissioning plan; LBP-03-29, 58 NRC 448 (2003)

Florida Power and Light Co. (St. Lucie Nuclear Power Plant, Unit 1), ALAB-893, 27 NRC 627, 629 n.5 (1988)
unreviewed board rulings do not constitute binding precedent; LBP-03-14, 58 NRC 110 (2003)

Florida Power and Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9 (2001)
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Florida Power and Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 26 (2001)
a threshold finding of standing does not render contentions admissible; CLI-03-14, 58 NRC 216 (2003)

Florida Power and Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 NRC 509, 521 (1990)
personal opinion and mere speculation as support for a contention are not sufficient to demonstrate that a genuine dispute exists; LBP-03-12, 58 NRC 88 (2003)

Foundation on Economic Trends v. Heckler, 756 F.2d 143, 151 (D.C. Cir. 1985)
NEPA requires that an environmental analysis take a hard look at environmental consequences of proposed actions and the costs and benefits of alternatives; LBP-03-17, 58 NRC 231, 259 (2003)

Free Transcripts of Adjudicatory Proceedings — Nuclear Regulatory Commission, B-200,585, 1981 WL 23995, at 2 (Comp. Gen. 1981)
NRC may provide free transcripts to all parties even though this constitutes an incidental benefit to intervenors; LBP-03-14, 58 NRC 112 (2003)

General Electric Co. (Vallecitos Nuclear Center), LBP-00-3, 51 NRC 49, 51 (2000)
notices published in the *Federal Register* are deemed to constitute notice to all, and ignorance of the content of such a notice is not good cause for late-filed hearing requests; LBP-03-24, 58 NRC 389 (2003)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995)
although the petitioner bears the burden of demonstrating standing, the intervention petition is construed in the petitioner's favor; LBP-03-27, 58 NRC 412 (2003)
to establish the requisite interest to intervene in a proceeding, a petitioner must allege a concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a favorable decision; LBP-03-20, 58 NRC 318 (2003)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116 (1995)
applicability of test for standing in nonpower reactor licensing case to materials licensing proceeding; LBP-03-20, 58 NRC 320 (2003)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116, 117 (1995)
a presumption of standing based on geographical proximity may be applied in materials cases only when the activity at issue involves a significant source of radioactivity producing an obvious potential for offsite consequences; LBP-03-20, 58 NRC 322 (2003)

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Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 117 (1995)
the Commission declines to disturb a board's finding of standing because it was neither extravagant nor a stretch of the imagination to presume that some injury, which wouldn't have to be very great, could occur within a half mile of the research reactor; LBP-03-20, 58 NRC 320 (2003)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 304, *vacated in part and remanded on other grounds,* CLI-95-10, 42 NRC 1, *aff'd in part,* CLI-95-12, 42 NRC 111 (1995)
personal opinion and mere speculation as support for a contention are not sufficient to demonstrate that a genuine dispute exists; LBP-03-12, 58 NRC 88 (2003)

Georgia Power Co. (Alvin W. Vogtle Nuclear Plant, Units 1 and 2), LBP-77-2, 5 NRC 261, 289 (1977)
the nuclear fuel cycle consists of uranium recovery (mining and milling), fuel production (conversion of uranium concentrates to uranium hexafluoride, uranium enrichment, and nuclear fuel fabrication), use in nuclear reactors, reprocessing irradiated fuel, and management and disposal of high-level radioactive wastes; CLI-03-15, 58 NRC 354 (2003)

Government of Virgin Islands v. Gereau, 523 F.2d 140, 147 (3d Cir. 1975), *cert. denied,* 424 U.S. 917 (1976)
newspaper article information does not meet the definition of matters that may be officially noticed because it is not a matter beyond reasonable controversy and is not capable of immediate and accurate determination by resort to easily accessible sources of indisputable accuracy; LBP-03-11, 58 NRC 73 (2003)

GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 203-04 (2000)
the Commission expresses disapproval of petitioners who fail to file a reply brief to correct defects that have been pointed out in their intervention petitions; CLI-03-13, 58 NRC 205 n.31 (2003)

GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000)
if a license transfer application itself lacks necessary detail, a petitioner may meet its contention pleading burden by providing plausible and adequately supported claims that the data are either inaccurate or insufficient; CLI-03-13, 58 NRC 203 (2003)

GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000)
a petitioner's issue will be ruled inadmissible if the petitioner offers no tangible information, no experts, no substantive affidavits, but instead only bare assertions and speculation; CLI-03-13, 58 NRC 203 (2003)

GrayStar, Inc. (Suite 103, 200 Valley Road, Mt. Arlington, NJ 07856), LBP-01-7, 53 NRC 168, 172, 188-89 (2001)
weighing relative safety of source materials for an irradiator in determining potential for irreparable injury; LBP-03-16, 58 NRC 143 n.14 (2003)

Gulf States Utilities Co. (River Bend Station, Units 1 and 2), ALAB-317, 3 NRC 175, 177 (1976)
right of interested governmental participant to petition for review; CLI-03-12, 58 NRC 190 n.9 (2003)

Gulf States Utilities Co. (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 796-97 (1977)
interactions with another petitioner to determine whether its interests will be represented do not constitute good cause for late filing; LBP-03-23, 58 NRC 378 (2003)

Haarhuis v. Kunnan Enterprises, Ltd., 177 F.3d 1007, 1015-16 (D.C. Cir. 1999)
an award of reasonable expert witness deposition fees is not precluded by 28 U.S.C. § 1821; LBP-03-14, 58 NRC 110 n.8 (2003)

Headwaters, Inc. v. BLM, 914 F.2d 1174, 1181 (9th Cir. 1990), *reh'g en banc denied,* 940 F.2d 435 (1991)
NEPA does not require consideration of alternatives that are not significantly distinguishable from alternatives actually considered; LBP-03-30, 58 NRC 479 (2003)

Heckler v. Campbell, 461 U.S. 458, 467 (1983)
agencies are free to determine issues on a case-by-case basis through adjudication or generically through rulemaking; CLI-03-7, 58 NRC 6-7 (2003)

Honorable Fortney H. (Pete) Stark — House of Representatives, B-216,239, 1985 WL 668789 (Comp. Gen. 1985)
appropriate restrictions to prevent government agencies from using federal funds to lobby do not prevent government contractors from lobbying using their own funds; LBP-03-14, 58 NRC 113 (2003)

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Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 649 (1979)
board declines to reject a late-filed hearing request because it is neither congressional nor Commission policy to exclude parties because the niceties of pleading were imperfectly observed; LBP-03-20, 58 NRC 317 n.8 (2003)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-8, 47 NRC 314, 320 (1998)
standard for review of denial of stay request; LBP-03-16, 58 NRC 149 (2003)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-00-8, 51 NRC 227, 240 (2000)
some matters may be left for post-licensing action, particularly activities that are simply ministerial or by their very nature require post-licensing verification by NRC Staff; CLI-03-8, 58 NRC 20 n.25 (2003)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 45 (2001)
authority of presiding officer to decide issues in Subpart K proceedings ''on the papers'' with no live evidentiary hearing; LBP-03-11, 58 NRC 57 (2003)
the Commission generally does not exercise its authority to make its own de novo findings of fact where the licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-03-8, 58 NRC 25-26 (2003)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 45, 46 (2001)
Commission deference to board as factfinder is particularly great where the board bases its findings in substantial part on witness credibility; CLI-03-8, 58 NRC 26 (2003)

International Uranium (USA) Corp. (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137, 142 (1998)
the burden on petitioner in a Subpart L proceeding to specify a germane area of concern requires a low threshold showing; LBP-03-27, 58 NRC 414 (2003)

International Uranium (USA) Corp. (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137, 142-43 (1998)
a would-be intervenor must only state his areas of concern with enough specificity that the presiding officer may determine whether the concerns are truly relevant to the license amendment at issue; LBP-03-20, 58 NRC 325 (2003)

International Uranium (USA) Corp. (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 15-16 (2000)
the phrase ''processed primarily for its source material content'' most logically refers to the actual act of processing for uranium or thorium within the course of the nuclear fuel cycle, and does not bear upon any other underlying or hidden issues that might be driving the overall transaction; CLI-03-15, 58 NRC 356 (2003)

International Uranium (USA) Corp. (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 16 (2000)
NRC's loss of jurisdiction over mill tailings once milling operations ceased resulted in ''orphaned'' mill tailings piles; CLI-03-15, 58 NRC 353, 354 (2003)

International Uranium (USA) Corp. (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 16-19 (2000)
the language in AEA section 11e(2) about processing ore for its source material content was specifically intended to broaden the definition of byproduct material to facilitate control of wastes that resulted from processing within the nuclear fuel cycle and that ultimately may be left orphaned; CLI-03-15, 58 NRC 358 (2003)

International Uranium (USA) Corp. (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 18 (2000)
the definition of section 11e(2) byproduct materials focuses on whether the process generating the wastes was uranium milling within the course of the nuclear fuel cycle; CLI-03-15, 58 NRC 354, 357 (2003)
UMTRCA does not require the NRC to ensure that no other incentives lie behind a licensee's interest in processing material for uranium; CLI-03-15, 58 NRC 357 n.33 (2003)

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International Uranium (USA) Corp. (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 19 (2000)
regulatory guides are not the equivalent of NRC regulations, but are routine agency policy pronouncements that do not carry the binding effect of regulations; LBP-03-17, 58 NRC 242 (2003)

International Uranium (USA) Corp. (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 20 (2000)
purely economic factors should not determine how radioactive material is defined; CLI-03-15, 58 NRC 357 n.33 (2003)

International Uranium (USA) Corp. (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 24 n.8 (2000)
the Commission has rejected ultimate business motivations as irrelevant to the section 11e(2) definition; CLI-03-15, 58 NRC 357 n.33 (2003)

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 117 n.1 (1998)
in materials licensing cases, proximity alone is not sufficient to establish standing; LBP-03-20, 58 NRC 318 (2003)

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 250 (2001)
judicial standing requires a showing of actual or threatened, concrete and particularized injury, that is fairly traceable to the challenged action, falls among the general interests protected by the Atomic Energy Act, and is likely to be redressed by a favorable decision; LBP-03-25, 58 NRC 393 (2003)

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 251 (2001)
a petitioner's challenge must show that the amendment will cause a distinct new harm or threat apart from the activities already licensed; LBP-03-20, 58 NRC 328 (2003)

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-02-10, 55 NRC 251, 257 (2002)
a petitioner's statement of concerns must be sufficient to establish that the issues fall generally within the range of matters that properly are subject to challenge in such a proceeding; LBP-03-27, 58 NRC 415 (2003)
the licensing board's conclusion that petitioner had set forth with particularity one or more germane areas of concern was plainly reasonable because those concerns on their face relate to the subject matter of the license amendment at issue; LBP-03-20, 58 NRC 324-25 (2003)

International Uranium (USA) Corp. (White Mesa Uranium Mill), LBP-02-6, 55 NRC 147, 151 (2002)
a licensing board directs that a hearing be held because the new material for reprocessing cannot be equated with material previously received at and processed by the mill; LBP-03-20, 58 NRC 328 (2003)

International Uranium (USA) Corp. (White Mesa Uranium Mill), LBP-02-6, 55 NRC 147, 151-52 (2002)
at the seminal stage of an informal Subpart L proceeding, it is enough that the hearing requestor has set forth with sufficient particularity one or more germane areas of concern; LBP-03-20, 58 NRC 324 (2003)

International Uranium (USA) Corp. (White Mesa Uranium Mill), LBP-02-19, 56 NRC 113 (2002)
the only matter about the pending license amendment subject to challenge is the new waste stream, not the previously approved underlying operation itself or any of the previously approved waste streams; LBP-03-20, 58 NRC 328 (2003)

Kenneth G. Pierce (Shorewood, Illinois), CLI-95-6, 41 NRC 381, 382 (1995)
the Commission generally does not exercise its authority to make its own de novo findings of fact where the licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-03-8, 58 NRC 25-26 (2003)
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Kerr-McGee Chemical Corp. v. NRC, 903 F.2d 1, 7 (D.C. Cir. 1990)
the definition of section 11e(2) byproduct materials focuses on whether the process generating the wastes was uranium milling within the course of the nuclear fuel cycle; CLI-03-15, 58 NRC 357 (2003)

Kleppe v. Sierra Club, 427 U.S. 390, 406 (1976)
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Limerick Ecology Action, Inc., v. NRC, 869 F.2d 719, 737 (3d Cir. 1989)
the amount of detail required in an EIS should be sufficient to enable those who did not have a part in its compilation to understand and consider meaningfully the factors involved; LBP-03-17, 58 NRC 259 (2003)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC 275, 290-91 (1988), *review declined,* CLI-88-11, 28 NRC 603 (1988)
the Statement of Considerations for final rule amendments is entitled to special weight in interpreting and applying contention requirements; LBP-03-12, 58 NRC 81 (2003)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991)
NEPA compels an analysis of every reasonable alternative, not every possible alternative, to a proposed licensing action; LBP-03-30, 58 NRC 463, 474, 479 (2003)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 75 (1991)
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Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-97-7, 45 NRC 437, 438-39 (1997)
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Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-97-12, 46 NRC 52, 53 (1997)
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Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88 (1998)
discussion of environmental impacts in an EIS should be sufficient to enable the decisionmaker to take a hard look at environmental factors and to make a reasoned decision; LBP-03-30, 58 NRC 463, 478 (2003)
NEPA does not require the selection of the most environmentally benign alternative if other values outweigh the environmental costs; LBP-03-30, 58 NRC 479 (2003)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93 (1998)
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Louisiana Power and Light Co. (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1087 n.12 (1983)
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Maine Yankee Atomic Power Co. (Maine Yankee Atomic Power Station), ALAB-161, 6 AEC 1003, 1010 (1973), *aff'd*, CLI-74-2, 7 AEC 2 (1974), *aff'd sub nom. Citizens for Safe Power v. NRC,* 524 F.2d 1291 (D.C. Cir. 1975)
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Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), CLI-80-16, 11 NRC 674, 675 (1980)
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Molycorp, Inc. (Washington, Pennsylvania), LBP-00-10, 51 NRC 163, 171-75 (2000)
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National Whistleblower Center v. Nuclear Regulatory Commission, 208 F.3d 256, 262 (D.C. Cir. 2000)
Commission has undoubted power to modify its procedural rules on a case-by-case basis; CLI-03-16, 58 NRC 361 (2003)

New York v. Federal Energy Regulatory Commission, 535 U.S. 1, 21, 122 S. Ct. 1012, 1024 (2002)
where Congress used broad language in the Federal Power Act of 1935, evidence of a specific catalyst for enactment of the statute does not define the outer limits of the statute's coverage; CLI-03-15, 58 NRC 358 (2003)

Niagara Mohawk Power Corp. (Nine Mile Point Nuclear Station, Units 1 and 2), CLI-99-30, 50 NRC 333, 344 (1999)
a state's clear interest in protecting the people and property within its boundaries gives it standing to contest a license transfer application; CLI-03-13, 58 NRC 202 (2003)

Niagra Mohawk Power Corp. (Nine Mile Point Nuclear Station, Units 1 and 2), CLI-00-9, 51 NRC 293, 294 (2000)
in absence of hearing notice, a participant may withdraw a request for licensing action without presiding officer approval or conditions and, in so doing, effectively moots the proceeding; LBP-03-13, 58 NRC 102 (2003)

North Atlantic Energy Service Corp. (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 217 n.8 (1999)
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North Atlantic Energy Service Corp. (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219-20 (1999)
speculation of some sort is unavoidable when the issue at stake concerns predictive judgments about an applicant's future financial capabilities; LBP-03-11, 58 NRC 71 n.18 (2003)

North Atlantic Energy Service Corp. (Seabrook Station, Unit 1), CLI-99-28, 50 NRC 291, 293 (1999)
NRC looks with favor on settlements; LBP-03-15, 58 NRC 134 (2003)

Northeast Nuclear Energy Co. (Millstone Nuclear Power Station, Units 1, 2, and 3), CLI-00-18, 52 NRC 129, 132 (2000)
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Northern States Power Co. (Pathfinder Atomic Plant), LBP-90-3, 31 NRC 40, 45 (1990)
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Okanogan Highlands Alliance v. Williams, 236 F.3d 468, 476-77 (9th Cir. 2000)
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Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 807 (1983)
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Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 333-34 (2002)
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PGA Tour, Inc. v. Martin, 532 U.S. 661, 689, 121 S. Ct. 1879, 1897 (2002)
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Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-785, 20 NRC 848, 870-71 (1984)
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Power Authority of the State of New York (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 295 (2000)
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Power Authority of the State of New York (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-01-14, 53 NRC 488, 508 (2001)
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Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23, 33-34 (2000)
some matters may be left for post-licensing action, particularly activities that are simply ministerial or by their very nature require post-licensing verification by NRC Staff; CLI-03-8, 58 NRC 20 n.25 (2003)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 235-36 (2001)
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Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459 (2001)
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Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 461-62 (2001)
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Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-02-8, 55 NRC 171, 191 & n.41 (2002), *rev'd on other grounds,* CLI-02-20, 56 NRC 147 (2002)
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Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 441-42 (1980)
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Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), LBP-86-37, 24 NRC 719, 724 (1986)
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Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-338, 4 NRC 10, 14 (1976)
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Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 84 (1977)
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Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 13, *rev'd on other grounds,* CLI-88-10, 28 NRC 573 (1988)
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Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-940, 32 NRC 225, 235-36 (1990)
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Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-89-8, 29 NRC 399, 416 (1989)
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Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982)
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Public Service Co. of Oklahoma (Black Fox Station, Units 1 and 2), LBP-77-18, 5 NRC 671 , 673(1977)
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Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 145 (1993)
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Sequoyah Fuels Corp. (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 16 (2001)
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Sequoyah Fuels Corp. (Gore, Oklahoma Site Decommissioning), LBP-99-46, 50 NRC 386, 394-95 (1999), *aff'd,* CLI-01-2, 53 NRC 9 (2001)
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Sequoyah Fuels Corp. (Gore, Oklahoma Site Decommissioning), LBP-99-46, 50 NRC 386, 395 (1999)
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Sequoyah Fuels Corp. (Gore, Oklahoma Site Decommissioning), LBP-99-46, 50 NRC 386, 396-406 (1999)
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Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994)
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Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 205 (1997)
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Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 221 (1997)
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Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-17, 39 NRC 359, 361, *aff'd* CLI-94-11, 40 NRC 55 (1994)
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South Carolina Electric and Gas Co. (Virgil C. Summer Nuclear Station, Unit 1), ALAB-642, 13 NRC 881, 894 (1981), *aff'd sub nom. Fairfield United Action v. NRC,* 679 F.2d 261 (D.C. Cir. 1982)
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State of Ohio ex rel. Celebrezze v. NRC, 812 F.2d 288 (1987)
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State of Ohio ex rel. Celebrezze v. NRC, 812 F.2d 288, 290 (1987)
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State of Ohio ex rel. Celebrezze v. NRC, 812 F.2d 288, 290, 291 (1987)
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State of Ohio ex rel. Celebrezze v. NRC, 812 F.2d 288, 291 (1987)
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Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 19 (1998)
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Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 19-20 (1998)
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Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 20-21 (1998)
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Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 456 (1981)
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U.S. Army (Jefferson Proving Ground Site), LBP-03-2, 57 NRC 39, 42 (2003)
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Union of Concerned Scientists v. NRC, 735 F.2d 1437 (D.C. Cir. 1984), *cert. denied sub nom. Arkansas Power & Light Co. v. Union of Concerned Scientists,* 469 U.S. 1132 (1985)
post-hearing verification that licensee has satisfied its specified design criteria is ministerial in nature and thus does not deprive intervenor of required hearing opportunity; CLI-03-8, 58 NRC 19-20 (2003)

Union of Concerned Scientists v. NRC. 735 F.2d 1437, 1451 (D.C. Cir. 1984), *cert. denied sub nom. Arkansas Power & Light Co. v. Union of Concerned Scientists,* 469 U.S. 1132 (1985)
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Union of Concerned Scientists v. NRC, 920 F.2d 50, 55 (D.C. Cir. 1990)
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10 C.F.R. 2.1205(h)
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10 C.F.R. 2.1205(j)
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10 C.F.R. 2.1205(k)
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10 C.F.R. 2.1205(*l*)(1)(i)
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10 C.F.R. 2.1205(*l*)(1)(ii)
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10 C.F.R. 2.1205(*l*)(2)
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10 C.F.R. 2.1205(m)
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10 C.F.R. 2.1205(n)
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10 C.F.R. 2.1209
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10 C.F.R. 2.1209(d)
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10 C.F.R. 2.1209(h)
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10 C.F.R. 2.1211(b)
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10 C.F.R. 2.1213
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10 C.F.R. 2.1231
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10 C.F.R. 2.1231(a)
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10 C.F.R. 2.1231(d)
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10 C.F.R. 2.1233
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10 C.F.R. 2.1233(a)
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10 C.F.R. 2.1235
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10 C.F.R. 2.1235(a)
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10 C.F.R. 2.1237
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10 C.F.R. 2.1239
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10 C.F.R. 2.1239(a)
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10 C.F.R. 2.1239(b)
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10 C.F.R. 2.1241
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10 C.F.R. 2.1253
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10 C.F.R. 2.1263
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10 C.F.R. Part 2, Subpart M
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10 C.F.R. 2.1306
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10 C.F.R. 2.1307(b)
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10 C.F.R. 2.1329
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10 C.F.R. Part 20, Subpart D
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10 C.F.R. 20.1301(a)(1)
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10 C.F.R. Part 20, Subpart E
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10 C.F.R. 20.1402
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10 C.F.R. 40.36
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10 C.F.R. 40.36(d)
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10 C.F.R. 40.42(g)
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10 C.F.R. 40.44
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10 C.F.R. 50.7(d)
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10 C.F.R. 50.9
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10 C.F.R. 50.33(f)(2)
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10 C.F.R. 50.36
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10 C.F.R. 50.44
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10 C.F.R. 50.54(x)
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10 C.F.R. 50.67(b)
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10 C.F.R. 50.67(b)(2)
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10 C.F.R. 51.70
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10 C.F.R. 51.71(d)
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10 C.F.R. 51.97(a)
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10 C.F.R. Part 51, Appendix B
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1 GAO, *Principles of Federal Appropriations Law,* at 4-176 (2d ed. 1991)
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4 *Moore's Federal Practice* ¶ 26.24, at 1158
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8 Charles Alan Wright et al., *Federal Practice and Procedure* § 2034, at 469 (2d ed. 1994)

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