

2. Environmental—primarily concerns issues relating to matters discussed or referenced in the Environmental Report for the license renewal application

3. Miscellaneous—does not fall into one of the categories outlined above.

As specified in 10 CFR 2.309, if two or more requestors/petitioners seek to co-sponsor a contention, the requestors/petitioners shall jointly designate a representative who shall have the authority to act for the requestors/petitioners with respect to that contention. If a requestor/petitioner seeks to adopt the contention of another sponsoring requestor/petitioner, the requestor/petitioner who seeks to adopt the contention must either agree that the sponsoring requestor/petitioner shall act as the representative with respect to that contention, or jointly designate with the sponsoring requestor/petitioner a representative who shall have the authority to act for the requestors/petitioners with respect to that contention.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing. A request for a hearing or a petition for leave to intervene must be filed by: (1) First class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC, 20555-0001, Attention: Rulemaking and Adjudications Staff; (2) courier, express mail, and expedited delivery services: Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852, Attention: Rulemaking and Adjudications Staff; (3) E-mail addressed to the Office of the Secretary, U.S. Nuclear Regulatory Commission, [HEARINGDOCKET@NRC.GOV](mailto:HEARINGDOCKET@NRC.GOV); or (4) facsimile transmission addressed to the Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC, Attention: Rulemakings and Adjudications Staff at 301-415-1101, verification number is 301-415-1966. A copy of the request for hearing and petition for leave to intervene must also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and it is requested that copies be transmitted either by means of facsimile transmission to 301-415-3725 or by e-mail to [OGCMailCenter@nrc.gov](mailto:OGCMailCenter@nrc.gov). A copy of the request for hearing and petition for leave to intervene should also be sent to the attorney for the applicant. Attorney for the Applicant: Mr. Steven R. Carr, Associate General Counsel—Legal Department, Progress Energy

Service Company, LCC, Post Office Box 1551, Raleigh, North Carolina, 27602-1551.

Non-timely requests and/or petitions and contentions will not be entertained absent a determination by the Commission, the presiding officer, or the Atomic Safety and Licensing Board that the petition, request and/or contentions should be granted based on a balancing of the factors specified in 10 CFR 2.309(a)(1)(i)-(viii).

Detailed information about the license renewal process can be found under the Nuclear Reactors icon at <http://www.nrc.gov/reactors/operating/licensing/renewal.html> on the NRC's Web site. Copies of the application to renew the operating licenses for Brunswick Steam Electric Plant, Units 1 and 2, are available for public inspection at the Commission's PDR, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland 20852-2738, and on the NRC's webpage at <http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html> while the application is under review. The NRC maintains an 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/readingrm/adams.html> under ADAMS accession number ML043060444. (**Note:** Public access to ADAMS has been temporarily suspended so that security reviews of publicly available documents may be performed and potentially sensitive information removed. Please check the NRC's Web site for updates on the resumption of ADAMS access.) Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS may 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](mailto:pdr@nrc.gov).

The staff has verified that a copy of the license renewal application is also available to local residents near the Brunswick Steam Electric Plant, Units 1 and 2, at the North Carolina University at Wilmington, William Randall Library, 601 South College Road, Wilmington, North Carolina.

Dated at Rockville, Maryland, this 30th day of November, 2004.

For the Nuclear Regulatory Commission.

**Pao-Tsin Kuo,**

*Program Director, License Renewal and Environmental Impacts Program, Division of Regulatory Improvement Programs, Office of Nuclear Reactor Regulation.*

[FR Doc. 04-26693 Filed 12-3-04; 8:45 am]

**BILLING CODE 7590-01-P**

## **NUCLEAR REGULATORY COMMISSION**

**[Docket No. 50-346]**

### **Firstenergy Nuclear Operating Company; Davis-Besse Nuclear Power Station; Amended Exemption**

#### **1.0 Background**

The FirstEnergy Nuclear Operating Company (the licensee) is the holder of Facility Operating License No. NPF-3, which authorizes operation of the Davis-Besse Nuclear Power Station (DBNPS). The license provides, among other things, that the facility is subject to all rules, regulations, and orders of the Nuclear Regulatory Commission (NRC, the Commission) now or hereafter in effect.

The facility consists of a pressurized-water reactor located in Ottawa County, Ohio.

#### **2.0 Request**

Title 10 of the Code of Federal Regulations (10 CFR), Part 50, Section 50.46 provides acceptance criteria for the emergency core cooling systems (ECCS), including an option to develop the ECCS evaluation model in conformance with Appendix K requirements (10 CFR 50.46(a)(1)(ii)). 10 CFR Part 50, Appendix K, Section 1.D.1, in turn, requires that accident evaluations use the combination of ECCS subsystems assumed to be operative "after the most damaging single failure of ECCS equipment has taken place."

An exemption issued on May 5, 2000, exempted the licensee from the single-failure requirement for the two systems (paths) for preventing boric acid precipitation (boric acid precipitation control or BPC) during the long-term cooling phase following a loss-of-coolant accident (LOCA). Additionally, the licensee was exempted from the calculation requirements of 50.46(b)(5) and Appendix K, Section I.A.4 for the second or backup path for BPC. The proposed action would amend the existing exemption by approving a new path for BPC. This new path would become the primary path and the original primary path would become the backup path. The original backup path would no longer be credited as part of

the licensing basis, although it would remain as a third option procedurally. As such, the parts of the exemption related to the calculation requirements of 50.46(b)(5) and Appendix K, Section I.A.4 are removed from the exemption as they only applied to the original backup path and are no longer needed.

Specifically, DBNPS requested the following amended exemption: FirstEnergy Nuclear Operating Company, with respect to the Davis-Besse Nuclear Power Station, is exempt from the single-failure criterion requirement of 10 CFR 50, Appendix K, Section I.D.1, with respect to failure of either Motor Control Center E11B or Motor Control Center F11A and the resulting inability to initiate an active means of controlling core boron concentration.

In summary, the licensee has modified the plant to install a better method of post-LOCA BPC and wants to credit the new method for use.

### 3.0 Discussion

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 when (1) the exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security; and (2) when special circumstances are present. Special circumstances are present whenever, according to 10 CFR 50.12(a)(2)(ii), "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule."

The requirements of 10 CFR Part 50 apply to the DBNPS request to amend the existing exemption. The underlying purpose of the single-failure criterion requirement is to assure long-term cooling performance of the ECCS in the event of the most damaging single-failure of ECCS equipment.

As a licensing review tool, the single-failure criterion helps assure reliable systems as an element of defense in depth. As a design and analysis tool, it promotes reliability through enforced redundancy. Since historically only those systems or components that were judged to have a credible chance of failure were assumed to fail, the criterion has been applied to such responses as valve movement on demand, emergency diesel generator start, short circuit in an electrical bus, and fluid leakage caused by gross failure of a pump or valve seal during long-term cooling. Certain types of structural

elements, when combined with other unlikely events, were not assumed to fail because the probabilities of the resulting scenarios were deemed sufficiently small that they did not need to be considered.

The single-failure criterion was developed without the benefit of numerical failure assessments. Regulatory requirements and guidance consequently were based upon categories of equipment and examples that must be covered or that are exempt, and do not allow a probabilistic consideration during routine implementation. Hence, a single failure that was not judged to be exempt would need to be addressed, whether or not there is a substantial impact upon overall system reliability. A result that does not improve safety is inconsistent with the objective of the single-failure criterion, which was not intended to force changes if essentially no benefit would accrue. This is the case with potential failure of the active means of BPC.

No U.S. plants have encountered LOCA conditions where BPC was of concern. BPC measures are not needed for hot-leg breaks because water will flow through the core, thus preventing significant boric acid buildup. Additionally, BPC measures are not needed if excore thermocouples indicate an adequate subcooling margin because there is no boiling to cause concentration of boric acid. Neither are they needed for many of the remaining pipe breaks until decay heat is low, because water will flow from the core to the upper downcomer via the reactor vessel vent valves, thus providing a mechanism to control accumulation of boric acid in the core. Active means for BPC are needed in case one of the above conditions is not satisfied.

In reviewing the proposed BPC ECCS alignments, the NRC staff used substantial improvement in reliability as its criterion for acceptance, since the existing BPC ECCS alignments were found acceptable on a probabilistic basis.

The licensee submitted information that compared the previously approved BPC alignments with the proposed alignments to show that the proposed BPC ECCS alignments are more reliable than the previously approved alignments.

The new proposed primary path takes suction from the ECCS sump through decay heat pump 1-1 to a newly installed crossover line to the decay heat removal system hot leg drop line and through decay heat system valves DH-11 and DH-12 to the reactor coolant system (RCS) hot leg, and finally to the

reactor vessel to back-flush precipitated boron from the core. The NRC staff determined that this is an improvement over the previous primary alignment in that it provides a faster, higher, flushing/diluting flow to the reactor vessel from the RCS hot leg side. For RCS cold leg pipe breaks, this alignment would provide the optimal flow direction for flushing of the core.

The new proposed backup path is the previous primary path through the pressurizer spray line. This continues to be an acceptable path as was determined by the staff's review for the exemption issued on May 5, 2000. Additionally, the new proposed backup path through the pressurizer spray line does not need additional exemptions regarding the calculation requirements of 50.46(b)(5) and Appendix K, Section I.A.4 that the original backup path needed.

The proposed new BPC primary path is significantly more reliable in terms of capacity and timeliness than the previous primary path. As stated above, the proposed new backup path is the previous primary path and does not need two additional exemptions regarding calculation requirements that the original backup path needed. Therefore, the staff concludes that the proposed backup path is significantly better than the original backup path.

Based on its review, the NRC staff has determined that the proposed BPC alignment paths are significantly more reliable than the previously approved paths and, therefore, the staff concludes that they are acceptable.

For the foregoing reasons, the NRC staff has concluded that amending the existing exemption to the requirements of Appendix K, Section I.D.1, and 10 CFR 50.46(a)(1)(ii) with respect to the revised alignment paths for active means of BPC at DBNPS is acceptable. The NRC staff has determined that there are special circumstances present, as specified in 10 CFR 50.12(a)(2)(ii), in that application of the specific regulations is not necessary in order to achieve the underlying purpose of these regulations to assure long term cooling performance of the ECCS.

Additionally, the NRC staff has concluded that the parts of the exemption related to the calculation requirements of 10 CFR 50.46(b)(5) and Appendix K, Section I.A.4 are now withdrawn as they are no longer needed.

### 4.0 Conclusion

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the amendment to the exemption is authorized by law, will not

present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances are present. Therefore, the Commission hereby grants FirstEnergy Nuclear Operating Company an amendment to the exemption from the requirements of 10 CFR 50.46(a)(1)(ii) and 10 CFR Part 50, Appendix K, Section 1.D.1 for Davis-Besse Nuclear Power Station.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment (69 FR 47469).

This exemption is effective upon issuance and shall be implemented within 120 days.

Dated at Rockville, Maryland, this 29th day of November 2004.

For the Nuclear Regulatory Commission.

**Ledyard B. Marsh,**

*Director, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.*

[FR Doc. 04-26692 Filed 12-3-04; 8:45 am]

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## NUCLEAR REGULATORY COMMISSION

### Notice of Availability of Interim Staff Guidance Documents for Fuel Cycle Facilities

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Notice of availability.

#### FOR FURTHER INFORMATION CONTACT:

Wilkins Smith, Project manager, Technical Support Group, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20005-0001. Telephone: (301) 415-5788; fax number: (301) 415-5370; e-mail: [wrs@nrc.gov](mailto:wrs@nrc.gov).

#### SUPPLEMENTARY INFORMATION:

##### I. Introduction

The Nuclear Regulatory Commission (NRC) plans to issue Interim Staff Guidance (ISG) documents for fuel cycle facilities. These ISG documents provide clarifying guidance to the NRC staff when reviewing either a license application or a license amendment request for a fuel cycle facility under 10 CFR part 70. The NRC is soliciting public comments on the ISG documents which will be considered in the final versions or subsequent revisions.

##### II. Summary

The purpose of this notice is to provide the public an opportunity to review and comment on a draft Interim Staff Guidance document for fuel cycle facilities. Interim Staff Guidance-10 provides guidance to NRC staff relative to determining whether the minimum margin of subcriticality (MoS) is sufficient to provide an adequate assurance of subcriticality for safety to demonstrate compliance with the performance requirements of 10 CFR 70.61(d).

##### III. Further Information

The document related to this action is available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this site, you can access the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The ADAMS ascension number for the document related to this notice is ML043290270. If you do not have access to ADAMS or if there are problems in accessing the document 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](mailto:pdr@nrc.gov).

This document may also be viewed electronically on the public computers located at the NRC's PDR, O 1 F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. The PDR reproduction contractor will copy documents for a fee. Comments and questions should be directed to the NRC contact listed above by January 5, 2005. Comments received after this date will be considered if it is practical to do so, but assurance of consideration cannot be given to comments received after this date.

Dated at Rockville, Maryland, this 24th day of November 2004.

For the Nuclear Regulatory Commission.

**Melanie A. Galloway,**

*Chief, Technical Support Group, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards.*

#### Draft—Division of Fuel Cycle Safety and Safeguards Interim Staff Guidance—10; Justification for Minimum Margin of Subcriticality for Safety Issue

Technical justification for the selection of the minimum margin of subcriticality (MoS) for safety, as required by 10 CFR 70.61(d)

##### Introduction

10 CFR 70.61(d) requires, in part, that licensees demonstrate that "under

normal and credible abnormal conditions, all nuclear processes are subcritical, including use of an approved margin of subcriticality for safety." To demonstrate subcriticality, licensees perform validation studies in which critical experiments similar to actual or anticipated calculations are chosen and are then used to establish a mathematical criterion for subcriticality for all future calculations. This criterion is expressed in terms of a limit on the maximum value of the calculated  $k_{\text{eff}}$ , which will be referred to in this ISG as the upper subcritical limit (USL). The USL includes allowances for bias and bias uncertainty as well as an additional margin which will be referred to hereafter as the minimum margin of subcriticality (MoS). This MoS has been variously referred to within the nuclear industry as subcritical margin, arbitrary margin, and administrative margin. The term MoS will be used throughout this ISG for consistency, but these terms are frequently used interchangeably. This MoS is an allowance for any unknown errors in the calculational method that may bias the result of calculations, beyond those accounted for explicitly in the calculation of the bias and bias uncertainty.

There is little guidance in the fuel facility Standard Review Plans (SRPs) as to what constitutes an acceptable MoS. NUREG-1520, Section 5.4.3.4.4, states that the MoS should be pre-approved by the NRC and that the MoS must "include adequate allowance for uncertainty in the methodology, data, and bias to assure subcriticality." However, there is little guidance on how to determine the amount of MoS that is appropriate. Partly due to the historical lack of guidance, there have been significantly different margins of subcriticality approved for different fuel cycle facilities over time. In addition, the different ways of defining the MoS and calculating  $k_{\text{eff}}$  limits significantly compound the potential for confusion. The MoS can have a significant effect on facility operations (e.g., storage capacity and throughput) and there has therefore been considerable recent interest in decreasing the margins of subcriticality below what has been accepted historically. These two factors—the lack of guidance and the increasing interest in reducing margins of subcriticality—make clarification of what constitutes acceptable justification for the MoS necessary. In general, consistent with a risk-informed approach to regulation, smaller margins of subcriticality require more substantial technical justification.

The purpose of this ISG therefore is to provide guidance on determining whether the MoS is sufficient to provide