COMMISSION MEETING SLIDES/EXHIBITS

BRIEFING ON 10 CFR PART 71 RULEMAKING

MONDAY, APRIL 9, 2001

Commission Briefing on Part 71 Proposed Rule April 9, 2001

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Background

- SECY-01-0035 to Commission on March 2, 2001.
- Part 71 Issues paper published July 17, 2000.
- Enhanced-Public Participation Process.
- Coordination with DOT.

Summary of Proposed Rule

- 11 IAEA - compatibility changes.
- 8 NRC - initiated changes.
- Draft RA - no significant cost, but would result in net benefit in regulatory efficiency.
- Draft EA - no significant environmental impact.

General Public Comments - Regulatory Burden

- Concern over harmonization with TS-R-1 vs. the cost of implementation, and the resulting safety benefit.
- Concern over proposed NRC changes causing some materials to come under the NRC jurisdiction.

General Public Comments - Continued - Safety

- **Part 71 regulations should be the minimum, irrespective of the IAEA changes.**
- **Rule changes should not result in reduction in safety.**

General Public Comments - Continued - Public Participation

- NRC increase the number of meetings.
- Requests for extending the public comment period.
- Lack of easy access to documents.
- IAEA process to develop TS-R-1 not open to the public.

General Public Comments - Continued - Coordination With Other Regulators

- **DOT and NRC should coordinate & address all public comments.**
- **Agreement States play an important role.**

Issue 2. Radionuclide Exemption Values

- Issue deals with transition from empirical to dose-based exemption values.
- Staff concludes adoption of dose-based values is warranted.
- Some values increase.

Issue 12. Special Package Authorizations

- Lesson learned from Trojan Reactor Vessel Package Shipment.
- Staff concludes provision is warranted.

Issue 15. Change Authority for Dual-Purpose Certificate Holders

- Internationally, competent authority review required for changes.
- Continue current amendments and propose change authority.
- Limitations on change authority.

Issue 17. Double Containment of Plutonium

- **Propose granting petition:**
  - **double containment removed;**
  - **solid form requirement retained.**

Issue 18. Contamination Limits for Spent Fuel Packages

- Discussion of trade-offs for increased SNF package limits.
- No changes proposed.
- IAEA Coordinated Research Project.

Proposed Rule Schedule

- Staff plans to have 3 public meetings.
- 90-day public comment period.
- Continue coordination with DOT to publish around the same time.
- Publication of Final rule is estimated one year after end of public comment period.

PRESENTATION BY

NUCLEAR ENERGY INSTITUTE

BEFORE

THE U.S. NUCLEAR REGULATORY COMMISSION

April 9, 2001

Good afternoon Chairman Meserve, Commissioner McGaffigan, Commissioner Dicus, Commissioner Merrifield, and Commissioner Diaz. I am Felix Killar, Director, Material Licensees, of the Nuclear Energy Institute (NEI) and I am pleased to be here today to represent the major licensees that transport radioactive materials in accordance with 10 CFR Part 71. I would also like to point out that there are representatives from many of the licensees present today.

As you are aware, we, along with other stakeholders, have been working for several years with the NRC Staff to develop a set of modifications to 10 CFR Part 71 which would improve the regulatory process and enhance protection of the public's health and safety without imposing unnecessary burdens on industry or the NRC. At the same time we are interacting with the U.S. Department of Transportation as it works to harmonize its regulations with IAEA recommended practices. I would like to present our view of the progress that has been made in achieving compatibility between Part 71 and IAEA's latest transportation regulations "TS-R-1" and to address some non-TS-R-1 changes. For the most part we support the Staff's recommendations contained in SECY 01-0035. However

we would like to identify those very few, but important, issues where additional Commission guidance would be helpful.

Based on our review of SECY 01-0035 we conclude the staff recommends that the NRC:

(1) not require SI units only;

(2) adopt the radionuclide exemption values in TS-R-1;

(3) adopt the A_1 and A_2 values from TS-R-1, but maintain the existing values for molybdenum-99 and californium-252;

(4) adopt new requirements to address TS-R-1 exemption requirements for certain UF_6 packages;

(5) adopt a criticality safety index;

(6) adopt the requirements for en enhanced water immersion package test;

(7) revise definitions and adopt the TS-R-1 definition for criticality safety index;

(8) adopt the requirements for a crush test for fissile material packages;

(9) adopt the TS-R-1 criticality evaluation for air shipments;

(10) propose special package authorization for one-time use in limited circumstances;

(11) expand the Quality Assurance requirements to include certificate holders and applicants for Certificates of Compliance;

(12) not incorporate ASME Code into Part 71;

(13) propose revisions that improve the fissile material exemptions and general license provisions;

(14) remove the double containment requirement in Part 73.63(b);

(15) not make any changes to Part 71 as they relate to contamination limits or alternatives; and

(16) lengthen the reporting submission period from 30 to 60 days.

NEI fully supports the staff in these recommendations.

The NRC has made risk-informing of regulatory requirements and practices one of its principal strategic plan objectives. In

response to SECY 99-100 the Commission directed the staff to examine how risk information could be used to improve the regulatory process, protect public health and safety and reduce unnecessary regulatory burden including the transportation of radioactive materials. SECY-01-0035 does not, however, address the use of risk information.

We recommend that when the Part 71 regulations are harmonized with TS-R-1 recommendations, revisions also be made to address the true risks of transportation activities and practices. The NRC, DOT, and Department of Energy have an extensive database on transportation accidents. This data, along with the Modal Studies and the risk studies being performed for spent fuel storage casks provide a basis for risk-informing Part 71. If the initiative to risk-inform Part 71 is not pursued then the value of risk initiatives for Part 72 is questionable since most of the casks used in the future will be dual-purpose storage/transport casks. This means risk insights for storage cannot be applied because deterministic requirements in Part 71 will prevent their application.

The SECY has not recommended adopting Type C or Low Dispersible Materials (LDM) requirements. We recognize that there is presently no specific need for Type C packages or the LDM. However, we believe generic rules should be adopted now rather than through rulemaking in the future when a specific package is under consideration. This places additional burden on the first applicant for a Certificate of Compliance (CofC) for a Type C package or who would like to utilize the LDM concept.

With one exception we support the NRC staff recommendation for grandfathering previously approved packages consistent with TS-R-1. We differ with the staff in our belief that the NRC should allow the continued use of all licensed packages. We agree that fabrication of new packages under older versions of Safety Series 6, as outlined in TS-R-1, should be discontinued but the current fleet should be allowed to continue in operation. On a related matter, we believe that it is important for the NRC to immediately adopt the 1996 package criteria. This would allow new packages as well as packages whose CofCs are currently, or will be, submitted before next year to be

reviewed against these criteria. The NRC would be able to issue a new CofC for the package with the "-96" designation. This would save the NRC and the industry resources by avoiding the need to resubmit of package CofC applications following the adoption of the TS-R-1 regulations in 2002.

The industry supports the NRC proposal to adopt the testing requirement changes in TS-R-1. However, we encourage the NRC to work with DOT, IAEA, and other countries to arrive at a uniform testing sequence. Due to the differences in testing sequences multiple tests must be done on the same package to meet the various competent authority requirements. The industry does not have a preference for any one testing sequence, as the packages continue to demonstrate compliance with all the various tests. However, for better utilization of competent authority and licensees resources a uniform testing sequence is needed. This would also remove any question of one testing sequence being superior to another.

The NRC should adopt IAEA's method for determining and using the Criticality Safety Index. The staff has proposed an additional step

of rounding the array size calculation. This simply adds additional conservatism when the risk does not justify any such need. The rounding requirement should be eliminated to be consistent with IAEA recommendations.

Finally, we support the staff's recommendation to add the new Type B(DP) package. However, the authority to make changes in a transportation package should be extended to all transportation packages. The criteria for making changes would be the same as the staff has proposed. The certificate holder would periodically update and submit a safety analysis to the NRC and only the certificate holder would be allowed to make changes to the package.

The industry supports the staff recommendation to adopt radionuclide exemption values. These values are based on IAEA's "International Basic Safety Standard for Protection Against Ionizing Radiation and for the Safety of Radiation Sources" IAEA Safety Series No. 115. This document, which was prepared in collaboration with international health-related organizations, considered a set of

exposure scenarios and pathways, and recommended a dose limited of 10 μSv per year (1 mrem per year). IAEA determined that activity concentrations do not differ greatly between transportation scenarios and those studied in Safety Series No. 115. Therefore, while the NRC is considering applying this limit for transportation the industry recommends that this exemption table be placed in 10 CFR Part 20, since it is may likely be apply as concentration limit for other activities such as material clearance and be taken into consideration for disposal and, if appropriate, recycle.

Additionally, the IAEA recognizes that this exposure limit is more restricted than what would be expected from naturally occurring radioactive materials. The IAEA therefore, provides an exemption for natural materials and ores containing naturally occurring radionuclides, which are not intended to be processed for use of the radionuclides. This exemption equals 10 times the specified concentration values. The NRC should adopt this as part of the changes to Part 20. Finally, NEI recommends that the NRC work with the U.S. Environmental Protection Agency to revise the Resource

Conservation and Recovery Act to adopt these same concentration limits and incorporate the provision for naturally occurring radioactive materials.

In conclusion, the industry supports the staff's recommendations for adoption of IAEA's TS-R-1 along with the balance of proposed changes in Part 71. However, we encourage the Commission to take additional steps to adopt Type C package requirements along with LDM, remove overly conservative array criteria, establish an immediately effective rule for review of packages using the 1996 criteria, work towards a uniform testing sequence, extend the change authorization to all packages under Part 71, and place the exemption provision in Part 20. Finally, the industry strongly encourages the NRC to actively proceed with risk-informing Part 71 consistent with the Commission's direction.

I appreciate the opportunity to appear before you today. We remain committed to working with the Staff and the Commission

towards resolution of the issues we have raised, and I would be pleased to answer any questions that you may have.

Public Citizen 30 YEARS
Protecting Health, Safety & Democracy

Buyers Up • Congress Watch • Critical Mass • Global Trade Watch • Health Research Group • Litigation Group
Joan Claybrook, President

Statement of James Riccio

Public Citizen's Critical Mass Energy & Environment Program

On The
U.S. Nuclear Regulatory Commission's Major Revision to 10 CFR Part 71
Compatibility with ST-1 – the IAEA Transportation Safety Standards

April 9, 2001

Good afternoon, my name is James Riccio with Public Citizen's Critical Mass Energy and Environment Program. I appreciate the opportunity to present our views the Commission on the Nuclear Regulatory Commission's (NRC) consideration of a rulemaking that would revise the NRC's regulations on packaging and transporting radioactive material to make it compatible with the International Atomic Energy Agency (IAEA) transportation standards.

Public Citizen seeks to ensure that harmonization lifts all nations to higher standards of public health, worker safety, environmental and consumer protection. We believe that any effort at harmonization of international and domestic standards should meet a few basic principles:

- The harmonization of NRC regulations with the IAEA standards should in no way reduce the level of protection currently afforded American citizens.

- Harmonization of NRC safety standards with those of the IAEA must result in the adoption of the best available technology and embody the highest levels of consumer and environmental protection.

- International standards should be viewed as a floor rather than a ceiling. The IAEA standards should establish the minimum acceptable standards and should not act to prohibit establishment of more conservative domestic standards.

- The NRC should only recognize and be involved harmonization activities that are negotiated in open, accountable and democratic forums.

Unfortunately, the proposed rule before the Commission fails to meet even these most basic principles. The proposed harmonization also contradicts NRC's own principles of good regulation and ignores positions previously espoused by this agency. As Commissioner McGaffigan has pointed out:

> contrary to NRC's rulemaking process under the Administrative Procedure Act, development of the International Atomic Energy Agency's (IAEA) Safety Series No. ST-1 for the transport of radioactive material did not involve the public or other stakeholders or include a cost-benefit analysis. In contrast, NRC is bound, as then Executive Director for Operations James Taylor stated in his May 31, 1996 letter to the IAEA, (attached), to consider costs and benefits in its regulatory analyses and is prepared to differ from the ST-1 standards, at least for domestic purposes, to the extent the standards can not be justified from a cost-benefit perspective.

(U.S. Nuclear Regulatory Commission, Commission Voting Record, SECY-00-0117, Rulemaking Process For Revising 10 Cfr Part 71 For Compatibility With IAEA Transportation Safety Standards [St-1], And To Make Other Changes, June 28, 2000, http://www.nrc.gov/NRC/COMMISSION/VOTE/2000-0117vtr.html .)

I'd like to thank Commissioner McGaffigan for drawing my attention to Mr. Taylor's 1996 letter. The Commissioner is correct in his judgement that "the NRC will appear disingenuous to the knowledgeable public participants who are aware of (the) previous staff positions." (Id.)

Unfortunately the staff did not see fit to attach the Taylor letter to the Commission Voting Record as Commissioner McGaffigan had done. During last years public meeting I requested that Mr. Taylor's letter be made available to the participants; it was not. I expected that NRC staff would address the Taylor letter in the voluminous package of materials I was sent in preparation for this presentation. It did not. Not only does this glaring oversight make the NRC appear disingenuous it undermines the public's confidence in the NRC and leads me to believe that the staff attempted to bury this document so that it would not become an issue in their rush to harmonize NRC and IAEA standards. I have taken the liberty of copying Taylor letter and making it available with my presentation. I am requesting that the Commission ensure that Taylor letter is posted on the NRC's web site and I believe that both the industry and the public would benefit from a more thorough discussion of the issues raised in Mr. Taylor's letter.

It is my hope that the NRC is still prepared to differ from the IAEA and I would recommend that the Commission reject the entire proposed rule and refuse to issue it for public comment. The proposed rule can not meet the NRC's Backfit Rule, Title 10 of the Code of Federal Regulations (CFR) Part 50.109. The staff has acknowledged that "due to the lack of quantitative data it is not possible to describe the net value or impact of each potential change in terms of costs."

While Public Citizen does not believe that cost/benefit analysis should be the determinative factor in whether a regulation is promulgated, Executive Order 12866 none-the-less requires agencies make a "reasoned determination that the benefits of the intended regulation justify its costs."

Unfortunately, the proposal to adopt the IAEA standards fails to meet the requirements of the executive order in that there is no "reasoned determination that the benefits of the intended regulation justify its costs." Even the Nuclear Energy Institute, (NEI) the nuclear industry lobbyists that have never met a regulatory burden reduction they didn't like, has stated that the IAEA standard "does not provide a substantial increase in safety and that the costs of implementation will be significant."

It is evident that neither the nuclear industry nor the public want to see NRC's regulations harmonized with the IAEA standard; albeit for different reasons. The industry's comments opposed it because it would increase costs. The public comments rejected it because it would increase their potential exposure.

According to information I received from the Department of Transportation (DOT) during its review of the IAEA's new standard, the activity level for exempt concentrations has been increased by almost 50%. The previous standard measured exempt concentrations against a 70 Bq/g limit. The new IAEA standard would measure exempt concentrations against a 100 Bq/g limit. This 30 Bq/g increase was not addressed in the DOT's proposal nor was I able to locate it in NRC's trove of documents. This constitutes a substantial increase in the radioactivity associated with these exempt consignments. In fact the only indication that the U.S. government is even cognizant of this change is contained in a note I received from the DOT which states, "The 100 Bq/g is approximately the same as the 70 Bq/g, listed in the IAEA Safety Series # 6, 1985 as amended 1990."

If, as the DOT claims, 70 Bq/g is approximately the same as 100 Bq/g, why adopt the revision? Why not regulate to the more protective standard of 70 Bq/g that is currently in place? The only conclusion that may be draw is that 70 does not equal 100 and that the 30 Bq/g difference affords the nuclear industry some level of burden reduction. Unfortunately, nowhere has the DOT, the NRC or the IAEA provided justification for such a burden reduction.

Similarly the proposal fails to address the fact that the adoption of the new IAEA standard would result in increasing the volume of radionuclides per conveyance for 44% of the radionuclides considered. Unfortunately, this point was omitted by both the DOT and the NRC in their public meeting on the adoption of the IAEA standard but can be gleaned from the Department of Energy 's comments. Whether the omission of this information was intentional or merely an administrative oversight, the fact remains that it is a substantial change from the previous standard.

The foundation of the U.S. Nuclear Regulatory Commission's regulation of Uranium Hexafluoride (UF6) packages for transport under 10 CFR Part 71 has been the concept that inadvertent, uncontrolled criticality must be prevented under all circumstances. The NRC has sought to achieve this goal by excluding the possibility that a moderator: water, graphite or hydrocarbons would leak into the packages. The NRC's determination that transport would not endanger the public health and safety is premised upon the absence of water or some other moderator from the package in order to prevent uncontrolled criticality.

The requirement that there be multiple high standard water barriers for the transport of UF6 is important because these packages contain an enormous volume of this highly toxic, radioactive substance. The two packaging methods for transporting Uranium Hexafloride results in shipments of 5020 pounds of 5% enriched UF6 by road or 10-ton shipments of 4.5% enriched UF6 by rail.

The IAEA's standard is similar to the requirements imposed under NRC regulations, however, it carves out an exclusion for Uranium Hexafloride. For some reason that is neither acknowledged nor addressed by the IAEA document, the requirement of multiple high standard water barriers has been removed for only those packages used to transport UF6. This is untenable. Given the huge quantities of UF6 per package, the consequences of failure are unacceptable.

Unfortunately, the requirements that have been substituted, valve integrity and quality assurance of the package, do not achieve the same level of defense in depth currently afforded by NRC regulations. Therefore, the adoption of IAEA standards would result in a reduction in the level of safety currently afforded the American public. There has been no evidence presented by the IAEA, DOT or NRC that this reduced level of safety is warranted.

Not even the NRC's own staff members think that the UF6 provisions are sound regulation. There is already a differing professional view filed within the NRC on the Uranium Hexafluoride (UF6) provisions and I understand that a differing professional opinion will soon follow.

Finally, I'd like to briefly address the proposed elimination of the double containment of plutonium currently required by 10 CFR 71.63 (b). I find it unconscionable that the NRC would propose this especially since transport of plutonium is likely to increase if the use of MOX fuel becomes a reality. The NRC's regulatory analysis acknowledges that "it is anticipated, therefore, that an increase in exposure could result during an accident." This attempted relaxation of NRC standards will only serve to undermine public confidence in the agency.

I thank the Commission for your time and consideration of our comments.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 31, 1996

Ms. A. Bishop, President
Atomic Energy Control Board
280 Slater Street
P.O. Box 1046, Station B
Ottawa, K1P 5S9
CANADA

Dear Ms. Bishop:

I am responding to a letter from Mr. Richard Rawl, dated April 4, 1996, in which he requested that comments on the draft 1996 Edition of the International Atomic Energy Agency's (IAEA's) "Regulations for the Safe Transport of Radioactive Material," Safety Series No. 6, be forwarded to you. Many organizations in the United States have contributed to the multi-year effort to complete this edition, including our national competent authority, the U.S. Department of Transportation, as well as the Nuclear Regulatory Commission, other Federal agencies, national laboratories, and industry representatives.

We agree with Mr. Rawl's letter that Type C package standards, uranium hexafluoride (UF_6) transport provisions, and the incorporation of exemption values are the three principal issues in this edition. Type C package standards were developed to address the air transport of large quantities of radioactive material, with exception for certain low dispersible materials. Although Type C packaging standards are less rigorous than the United States packaging standards for the air transport of plutonium, the United States has made it clear that, consistent with United States law, any plutonium air transport to, or over, the United States will be subject to the more rigorous United States packaging standards. Consequently, the United States does not oppose the IAEA Type C or low dispersible provisions.

The United States has, however, repeatedly objected to the draft provisions intended to address the other two principal issues, UF_6 and exemption values. The draft UF_6 regulations would require that cylinders containing natural, depleted or less than one percent enriched UF_6 be subjected to the thermal test currently imposed on Type B package designs. The draft radionuclide specific exemption values (activity concentration limits for exempt material, and corresponding activity limits for exempt consignments) were developed to provide dose-based exemptions that harmonized with public dose limits contained in the "International Basic Safety Series for Protection Against Ionizing Radiation and for the Safety of Radiation Sources," Safety Series No. 115. The United States positions on the draft provisions were presented through various working papers and during working group and plenary deliberations at Revision Panel III, the Standing Advisory Group on the Safe Transport of Radioactive Material (SAGSTRAM), and Revision Panel IV.

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PDR COMMS NRCC
CORRESPONDENCE PDR

Attachment 2

We are opposed to the draft UF_6 and exemption value provisions on the following bases that they have not been justified:

- We are unable to identify a public health and safety problem with the current provisions. In hundreds of thousands of shipments that span five decades, we are unable to identify any public health or safety impact attributable to the current UF_6 and exemption value provisions.

- Neither the draft UF_6 nor exemption value provisions provide significant improvement in safety.

- The draft provisions would impose new complexity and economic burdens in transportation. The costs of imposing these provisions, particularly for UF_6, would be substantial. If the use of overpacks is required to meet the thermal test, as many in the UF_6 industry believe, the cost could reach 120 million dollars to the United States. This includes the cost of overpacks, incremental equipment, additional manpower requirements, and additional shipping requirements (truck cargo is limited to only one overpacked cylinder per truck, versus two not overpacked).

- The draft provisions would decrease harmony between IAEA and Member State transportation regulations. Since neither the UF_6 nor the exemption value provisions are needed for safety, their adoption in the United States will depend primarily on the provisions' economic merit. It is our judgment that both provisions would fail a domestic cost/benefit screening because we are unable to identify and quantify sufficient benefit to compensate for their costs. We are concerned that, after the years of effort on this Edition, we, and perhaps other Member States, will be forced to adopt domestic UF_6 and exemption value provisions that are incompatible with those of IAEA.

The United States has cooperated, and will continue to cooperate, with the IAEA and the other Member States in issuing Safety Series No. 6. It is not our intent to obstruct the completion or issuance of Safety Series No. 6. However, our continuing concern about the magnitude of the impacts from these provisions, and our desire to avoid incompatibility with IAEA regulations, compel us to disagree with the UF_6 and radionuclide specific exemption provisions. We believe we have exhausted the review process available through the auspices of the Transportation Safety Standards Advisory Committee (TRANSSAC, formerly SAGSTRAM), and that further review through TRANSSAC will not be fruitful.

Accordingly, we recommend that the 1996 Edition be adopted without the UF_6 or radionuclide specific exemption value revisions. Should the draft provisions be retained by the Advisory Committee on Safety Standards, we intend to provide a dissenting view regarding these provisions to the Board of Governors, when Safety Series No. 6 is submitted for approval.

Sincerely,

[redacted]

James M. Taylor
Executive Director
for Operations

Presentation By Duratek, Inc.

Before the
Nuclear Regulatory Commission
10 CFR 71 Rulemaking Meeting
April 9, 2001

Presented by:
Mark Lewis

Introduction

- Duratek is
  - Major designer and fabricator
  - Package licensee
  - Maintainer
  - Shipper
  - Carrier of NRC licensee package
- Duratek is consequently major stakeholder in process

Duratek

•On behalf of Duratek and the radioactive shipping industry, I thank you, Mr. Chairman, Commissioners, and the NRC Staff for the opportunity to speak before you today.

•I am Mark Lewis with Duratek, and the former Chem-Nuclear Systems, which is a major designer, fabricator, package licensee, maintainer, shipper, and carrier of NRC licensed packages.

•Consequently, we are a major stakeholder in this process that can be significantly impacted by modifications to 10 CFR 71

History

- Duratek has
  - Communicated issues and made suggestions
  - Participated in domestic rulemaking and international standards process
  - Suggested goals to enhance protection- not overburdening industry

Duratek

•Duratek has historically communicated our issues and made recommendations to the U.S. DOT and U.S. NRC staff, and

•Participated in industry forums to effect modifications to the domestic regulations and international standards, that

•Will enhance protection of the public's health and safety, while not overburdening the industry

Endorsement of Proposed Rule

- Duratek endorses Staff recommendations (SECY 01-0035)
- Duratek fully supports many Staff recommendations
- Recommendations to note

Duratek

•In general, Duratek endorses the Staff's recommendations contained in SECY 01-0035 for the modifications to Part 71 in order to achieve compatibility with IAEA's TS-R-1.

•We fully support the following Staff recommendations:

- **Not requiring SI units, solely**
- **Adoption of the radionuclide exemption values**
- **Compatibility with the A_1 and A_2 value, while maintaining the domestic authorization for Mo^{99} and Cf^{252}**
- **A criticality safety index separate from the transport index**
- **A special package authorization provision**
- **Not incorporating ASME Code requirements**
- **Definition changes**
- **Elimination of the double containment requirements for plutonium**

•Although in response to the other recommendations we don't have strong opinions one way or the other, there are some issues we particularly want to note in the following:

In Support of Compatibility

- Duratek is in strong support of compatibility
- Recognize shortcomings of IAEA standards revision process
- Room for domestic deviation
- Staff's recommendations compatible with minimal deviation

Duratek

• Most shippers and carriers, are in basic support, while Duratek is strong support of compatibility with TS-R-1,because it promotes compliance and results in minimal confusion.

• We recognize the shortcomings of the IAEA standards revision process with its special interest issues and less informed voting members, yet shipping internationally becomes extremely burdensome without compatibility

• Yet, in domestic only transportation scenarios there is room for deviation from the compatible standard

• In the Staff's recommendations, the high level of compatibility with minimal deviation is recognized and appreciated

Grandfathering

- Duratek not in support of "grandfathering" provisions
- Phase out should not be based on age
- Recommend risk-informed/risk-based approach for phase out
- Age grandfathering - significant cost to industry without benefit

Duratek

- **Duratek is not in support of the Staff's recommendations for "grandfathering" of previously approved packages.**
- **The philosophy of phasing out the use of packages based solely on age, e.g. two revision cycles, 20 years, or 30 years, does not offer any credence to packages that have been maintained under a strict maintenance program, undergone considerable and continued scrutiny, and have an unblemished safety record.**
- **Consider the difference in the risk of package failure between an industrial radiography source that is continually being battered during normal use versus a nuclear plant shipping cask.**
- **We recommend the NRC consider a risk informed/risk based approach to phasing out packages.**
- **Phasing out packages solely based on age, even with a three year phase out period, will result in significant costs to the industry without a measurable benefit.**
- **In either case, the NRC still has the ability to immediately discontinue the use of a single package or a family of packages if it poses a risk of failure by means of recalling a certificate**

Special Package Authorization

•Duratek endorses special package authorization provisions for out-of-scope materials

•Large plant components- increasing due to decommissioning and relicensing

•Staff recommendations- standardizes process but maintains safety

Duratek

•Duratek specifically points out our endorsement of the special package authorization provisions for large objects for which the regulations were not developed to accommodate.

•As was pointed out in the Staff's recommendations, as the nuclear power plants either decommission or undergo major replacement maintenance to support license extensions or power upgrades, many very large plant components will need to be shipped for disposal.

•The provisions in the Staff's recommendation, provide the standardized conduit for obtaining specific approval, while maintaining safety through an equivalent safety system that includes operational procedures, containment considerations, and administrative controls.

Double Containment of Plutonium

- Duratek endorses elimination of double containment requirements
- Bad connotations + risk perception = historic restrictions
- Standard regulations provide safe plutonium transport
- Double containment- costly and burdensome without benefits

Duratek

•Duartek, also specifically points out our endorsement to eliminate the double containment requirements for plutonium.

•We feel the historic basis for developing and maintaining this more restrictive and incompatible rule is a result of the bad connotation associated with plutonium which developed into a perception of risk greater than other radionuclides while in transportation.

•When, in fact, shipped in accordance with Part 71 and Title 49 and in authorized quantities defined by its A_1 or A_2 value the risk while in transportation is equivalent to any other radionuclide. The value of the Q-value system used to develop the A_1 the A_2 values is to quantify the equivalent risk of one radionuclide compared to the others.

•Double containment of plutonium results in high costs of transportation without a measurable safety benefit.

Conclusion

Duratek:

- Requests grandfathering be revisited
- Compatibility be prime goal
- NRC maintain position on special packaging provisions and double containment of plutonium
- Commend Staff for thoroughness and compatibility
- Thank to Commission for level of public involvement in rulemaking process

Duratek

- **In conclusion, Duratek requests that:**
  - **the method of phasing out packages, grandfathering, be revisited;**
  - **compatibility be a prime goal; and**
  - **the NRC maintain it's position on special packaging arrangements and double containment of plutonium**
- **We commend the NRC staff for their thoroughness in developing all recommendations and their work toward compatibility.**
- **We also thank the Commission for applying the "enhanced public participation" process for this rulemaking. We believe it will result in greater acceptance and understanding, fewer comments upon publication of the proposed rule, and a faster final rule cycle.**

Nuclear Information and Resource Service
1424 16th Street NW Suite 404
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202-328-0002; 202-462-2183 fax

The Nuclear Information and Resource Service appreciates the chance to speak directly to the Commissioners regarding the proposed transportation regulation changes.

We support protective regulation of nuclear transport. Our position is that, because of the inherent dangers of transporting nuclear materials, such shipments should be limited and prevented rather than encouraged.

REGARDING TSR-1 and EXEMPTION Concentrations and Quantities:

We oppose adoption of TSR-1 (ST-1) particularly because it sets exempt quantities and increases exempt concentrations for radioactive transport.

The exemptions in columns 3 and 4 of the A-1/A-2 tables are new and constitute a side-door attempt to set BRC or radioactive "release"/ "clearance"/ dispersal into commerce - levels. We continue to support regulatory control over the isolation of radioactive materials from the public and environment, including the deliberate permission and introduction of radioactive contamination into commerce and unregulated disposal at any level above existing natural background.

Currently, DOT and NRC and international regulations, (consistent with SS 6) allow radioactive materials that have less than 70 becquerels of all radioactive isotopes per gram to be exempt from transport regulation. The new regulations proposed will increase, in some cases dramatically, the amount of radioactive concentration allowed in commerce unregulated. Despite the rationalization that the isotope-specific concentration levels are "more scientifically based" the exempt concentrations go up for most of the radionuclides. We have no problem with reducing the concentrations that are exempt, but it is inconsistent with the basis principle of As Low As Reasonably Achievable to increase exemptions.

If the goal is minimizing public risk, and it is not clear that that is NRC's goal, these new, higher concentrations do just the opposite.

Furthermore, Column 4 sets exempt amounts of contamination per consignment. This has never been part of the transport regulation and is new, completely unjustified additional risk, dose and exposure to the public, unregulated.

At a minimum the exemption portions of the TSR-1 should be deleted from whatever NRC adopts.

REGARDING NRC's proposed changes to CERTIFICATES OF COMPLIANCE (not a part of TSR-1):

We oppose the proposal by NRC to allow changes to be made to transport casks after they have received a Certificate of Compliance, without notifying NRC or getting documented, evaluated approval by NRC.

This is the case for dry storage casks and has resulted in problems. An example is the VSC 24 cask at Palisades which had shims placed in the plug. The problems with that cask and heatup continue.

We recommend requiring all design changes to be approved after documented evaluation by NRC for both transport and storage casks.

Diane D'Arrigo, Mary Olson, NIRS April 9, 2001