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(28)

Union of Concerned Scientists

September 28, 2000

Ms. Annette Vietti-Cook
Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555©0001

Attention: Rulemaking and Adjudications Staff

SUBJECT: PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL (10 CFR PART 71) TO MAKE IT COMPATIABLE WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY TRANSPORTATION STANDARDS

Dear Ms. Vietti-Cook:

The Union of Concerned Scientists (UCS) endorses and repeats the request made by several other stakeholders, including Mr. James Riccio of Public Citizen's Critical Mass Energy and Environment Project and Ms. Diane D'Arrigo of the Nuclear Information & Resource Service on behalf of several other organizations, for the Nuclear Regulatory Commission to extend the public period for this proposed rulemaking effort. As indicated in the *Federal Register* notice (65FR44360 July 17, 2000) for this effort, the NRC is considering a major revision to its regulations in 10 CFR Part 71. The public comment period is currently September 30, 2000. That date must be extended by at least 30 days for the following reasons:

A. In its present incarnation, ADAMS impedes, rather than enables, public access to relevant information. It is excruciatingly difficult to locate documents using ADAMS and even more problematic to print out those rare documents found.

B. The NRC's Public Document Room (PDR) was relocated from downtown DC to the NRC's headquarters building in Rockville. To facilitate this relocation, the PDR was closed to the public on Friday, September 22, 2000, and on Monday, September 25, 2000. The public lost two full working days.

C. For some unexplained reason, the Bibliographic Retrieval System (BRS) was completely shut down from Thursday, September 21, 2000, to at least Wednesday, September 27, 2000. BRS is the most convenient way for the public to access information dated prior to the switch to ADAMS on November 30, 1999. The public lost at least five full working days.

These reasons represented hardships that were beyond the control of the public. Therefore, an extension of the public comment period is required to remedy these hardships.

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Like many other public stakeholders, UCS was unable to attend any of the public workshops conducted by the NRC regarding this rulemaking activity. We have reviewed the two meeting summaries posted on the NRC's rule forum website sponsored by the Lawrence Livermore National Laboratory. We provide the following comments about those meetings and on the issues paper itself:

August 10, 2000, Meeting at NRC Headquarters, Rockville, MD

1) UCS agrees with the comment that the IAEA documents with which NRC and DOT are striving to harmonize are not readily available to the public. It is strongly recommended that the NRC post these IAEA documents, and their supporting technical documents, on the NRC's website as soon as possible. The NRC website including links to these documents would be an acceptable alternative.

2) UCS disagrees somewhat with the comment that "Harmonization of Part 71 with ST-1 is not acceptable if Part 71 requirements are reduced from their current level." It is UCS's position that Part 71 requirements could be reduced if a publicly available technical justification (i.e., not one that purportedly exists only in ADAMS) demonstrates that safety margins are not reduced at all by the revised requirements. UCS opposes any change to Part 71 requirements resulting in a safety margin reduction regardless of the alleged cost savings.

3) UCS disagrees strongly with the industry's support for "making minimal changes without NRC approval." As Commissioner Diaz has remarked on numerous occasions, "minimal" has always been ill-defined by the industry and the NRC. Any revision to Part 71 requirements that increases subjectivity is unacceptable.

4) UCS agrees with the comments that the proposed elimination of double containment in packages transporting plutonium appears to represent a significant reduction in safety margins simply to save a few dollars. The NRC's mission is to save lives, not money. Now is not a good time for the agency to abandon or redefine its mission. Elimination of the double containment requirement for plutonium must be based on a publicly available technical justification (i.e., not one that purportedly exists only in ADAMS) demonstrates that safety margins are not reduced at all. The justifications provided in the meeting summary (e.g., anecdotal information from Europe and the TRUPACT II episode) are not sound technical arguments to support eliminating this public safety measure.

5) UCS agrees fully with the comment expressed in the afternoon session that "NRC and DOT should not harmonize their regulations if it is going to diminish safety, also that the harmonization process should be democratized." We hasten to point out that we are talking about 'diminished public safety' not 'diminished financial safety.' In reading the issues paper, the NRC staff appears to have equated these two terms. We view them as distinct as church and state.

6) UCS agrees with the comment expressed in the afternoon session that "Any proposed rule should provide a detailed discussion of why A_1/A_2 values are being changed for each affected nuclide." The technical justification for changes must include a specific and explicit analysis for each affected nuclide. Global hand-waving will not suffice.

September 20, 2000, Meeting in Atlanta, GA

7) UCS agrees with the comment that "exemption values and contamination limits should not be increased" for the reasons stated by the public interest group representatives; namely, to prevent public safety from being diminished.

Issues Paper

8) With respect to Issue #1 about changing Part 71 to SI units only, UCS recalls the US's futile attempt to convert to SI units decades ago. Perhaps it's the rest of the world's turn to try converting to English units. Then it might be our turn to try to go SI again.

9) With respect to Issue #4, UCS has serious concerns about the safety margins for uranium hexafluoride packaging. For example, ST-1 paragraph 677(b) would allow uranium hexafluoride packages to be evaluated for criticality without considering in-leakage of water. As stated in the issues paper, this provision means that a single uranium hexafluoride package does not have to be subcritical when water is postulated to leak into the containment system. There are many serious concerns raised by this provision, including:

   a) As reported in NRC Information Notice No. 87-26, "Cracks in Stiffening Rings of 48-Inch Diameter UF6 Cylinders," dated June 11, 1987, the US has already experienced uranium hexafluoride packages being used that had manufacturing defects. According to this NRC document, these defective packages were not identified until after their shipment to users. This NRC report demonstrates that mistakes do happen despite everyone's best intentions. Thus, it appears imprudent, as well as unwise public policy, to close one's eyes to the possibility that water might leak into a package containing uranium hexafluoride.

   b) As tragically demonstrated by the September 30, 1999, fatal accident at the fuel processing facility in Tokaimura, Japan, worker mistakes have led to inadvertent criticality. While the Tokaimura accident did not involve uranium hexafluoride, it is nonetheless applicable to Issue #4 in that a worker's error could contribute to water being inside a uranium hexafluoride package. The often-touted defense-in-depth principles dictate that the uranium hexafluoride package remain subcritical even if water enters via worker mistake or equipment degradation/failure.

   c) As stated by the NRC in the issues paper discussion for Issue #13:

      > The NRC has observed problems with the performance of 10 CFR Part 72 Certificate of Compliance (CoC) holders in implementing the Part 72 quality assurance (QA) requirements. Problems have occurred in design, design control, fabrication, and corrective action areas.

      It is unwise public policy to assume that <u>all</u> folks will <u>always</u> conform with <u>all</u> aspects of Part 71 regulations given the abundant evidence of Part 72 conformance problems (not to mention all of the Part 50 conformance problems). Once again, the often touted defense-in-depth principles dictate that the uranium hexafluoride package remain subcritical even if water enters via a problem in design, design control, fabrication, and corrective action areas.

   d) As discussed in NRC report NUREG-1179, "Rupture of Model 48Y UF6 Cylinder and Release of Uranium," dated February 1986, water leakage into a uranium hexafluoride package represents a public health hazard other than from potential criticality. This NUREG document reported that a worker died near a uranium hexafluoride package "because he inhaled hydrogen fluoride fumes, a reaction product of UF6 and airborne moisture." This concern would apply to both fissile and non-fissile uranium hexafluoride packages. Once again, the often-touted defense-in-depth principles dictate fully adequate protection against water intrusion because it provides protection against criticality and toxic hazards.

10) Issue #12 appears inconsistent with the stated theme of the rulemaking, at least as discussed in the publicly available information. The rulemaking is billed as needed to make 10 CFR Part 71 requirements compatible with IAEA's packaging and transportation requirements. With the sole exception of a very brief mention of the IAEA's special arrangement provision, the issues paper talks about solving a messy exemption problem in the US. It is recommended that Issue #12 be eliminated from the scope of this effort, unless the tie-in to IAEA's regulations can be clarified and the applicable IAEA information made publicly available.

11) Issue #15 appears blatantly inconsistent with the stated theme of the rulemaking. The rulemaking is billed as needed to make 10 CFR Part 71 requirements compatible with IAEA's packaging and transportation requirements. The issues paper states that Issue #15 seeks to make Part 71 compatible with Part 72 by allowing folks to make minor changes without prior approval from the NRC. In fact, the issues paper states that "The current IAEA standard ST-1 does not contain any equivalent provisions for changing a transportation package's design, without prior review by the competent authority." Thus, Issue #15, if adopted, would make Part 71 regulations incompatible with IAEA's current standard. It is recommended that Issue #15 be eliminated from the scope of this effort.

12) Issue #16 appears inconsistent with the stated theme of the rulemaking. The rulemaking is billed as needed to make 10 CFR Part 71 requirements compatible with IAEA's packaging and transportation requirements. The issues paper states that Issue #16 involves 16 (coincidentally) recommended actions from NUREG/CR-5342. These recommended actions cover packages with special moderators that are shipped under the general license and fissile material exemptions. However, as the NRC states in the issues paper, "IAEA standard ST-1 contains language on fissile exemptions and restrictions on the use of special moderators. However, ST-1 does not presently contain provisions on general licenses for shipment of fissile material." Thus, Issue #16, if adopted other than to discard current provisions within Part 71, would make NRC's regulations incompatible with IAEA's current standard. It is recommended that Issue #16 be eliminated from the scope of this effort.

13) Comments 10-12 above demonstrate beyond reasonable doubt that the NRC's goal with this rulemaking is cost-savings. When compatibility with the IAEA standards results in cost-savings, the NRC opts for compatibility. When non-compatibility with IAEA standards results in cost-savings, the NRC opts for non-compatibility. Thus, is it abundantly obvious to even the most casual observer that the bottom line of this NRC effort is to enhance the bottom lines of NRC licensees. Two of the NRC's pillars are to improve public confidence and to reduce unnecessary regulatory burden. At best, this rulemaking effort supports the second pillar. It is not apparent how this effort supports the first pillar. It is even less apparent how this effort, combined with seemingly countless other efforts aimed at saving licensees' money—excuse me, reducing unnecessary regulatory burden— support another NRC pillar; namely, maintaining safety. The recent Inspector General report on Indian Point 2 suggests strongly that the NRC staff does not have sufficient resources to review steam generator inspection reports for one of the most vulnerable, if not the most vulnerable, steam generator plants in the United States. Or perhaps the NRC staff would have adequate resources if it was not wasting so much time and effort pursing unnecessary burden reduction activities. The NRC must recognize—sooner rather than later—that its "maintaining safety" pillar must apply globally instead of locally. The NRC cannot justify an unnecessary burden reduction effort, such as this one, solely on the grounds that that specific effort maintains safety. If the resources applied to that effort are appropriated from an area, such as the review of IP2's steam generator inspection reports area, that causes safety to be diminished, than the net effect of that effort does not maintain safety. The NRC staff should shelf this rulemaking

effort instead of shelving steam generator inspection reports without so much as a cursory review.

UCS respectfully requests to be placed on the distribution list for all correspondence issued by the NRC on this rulemaking effort.

Sincerely,

David A. Lochbaum
Nuclear Safety Engineer