University of California
LOS ALAMOS SCIENTIFIC LABORATORY
Post Office Box 1663 Los Alamos, New Mexico 87545

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PROPOSED RULE PR - 71 (44FR 48235)

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December 13, 1979

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Docketing and Servicing Branch

Gentlemen:

We submit the following comments regarding the proposed rule change for 10 CFR Part 71, as published in the Federal Register of Friday, August 17, 1979.

71.4 (k) This definition is not consistent with established practice or with the IAEA regulations. "Optimum interspersed hydrogenous moderation" usually refers to moderation between packages of an array.

71.4 (n) This definition could cause confusion. If a 10 kg package contains less than 2 μci, is this "combination of materials" non-radioactive?

71.4 (u)(3) enriched uranium typically contains about 1% ^{234}U and 0.2% ^{236}U. Does this meet the definition?

71.11 appears to devote a very large space to a problem that could be handled in a much more simple manner. It is suggested that this be covered in a certificate of compliance issued to one shipper and available for use by all.

If these provisions are to be retained, it should be recognized that for the fissile isotopes of plutonium, the A_1 quantities are:

^{238}Pu ; .172 g
^{239}Pu ; 32.5 g
^{241}Pu ; 8.9 g

Acknowledged by card.

and discussion of "400 g or A_1, which ever is less" may be confusing. Further, since the Type A quantity limit controls the amount of radioactivity in the package, all discussions of "plutonium" should refer to "fissile isotopes of plutonium.

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71.35 (a)(3)(iv) It seems unfortunate that we must continue to specify the maximum 5% reductions in volume and spacing instead of making array evaluations on the basis of the condition of the damaged package. If, in some case this spacing is only one inch, verification of 5% might be difficult. Admittedly, packages will probably meet these requirements for Appendix A, but are they necessary? Given the more stringent requirements of Appendix B, this part is probably trivial, contributes little to safety, and primarily represents a nuisance to the applicant.

71.35 (b) The assumption of optimum interspersed hydrogenous moderation should be moved from (b)(1) to (b)(2) after correcting the definition.

71.35 (c) Again the assumption of optimum array moderation for the array of damaged packages has been lost.

71.35 (d) The general view is that there are no fissile class III packages, only fissile class III shipments. See 71.4 (d)(3).

Appendix C The entry U(irradiated) carries a reference to footnote 3, which is not included.

Appendix D The requirement that special form encapsulation be opened only by destructive means is wasteful of encapsulation and could involve awkward operations in glove boxes. If there is some reason for this requirement it would be better to state the objective as a performance standard. Attempts to comply with this provision might lead to solutions less satisfactory than a good pipe nipple, as an example something like a sardine can.

Retention of this requirement would add greatly to the cost and complexity of some operations. We believe this should only be done if justified by compelling safety arguments, which have not been provided. If the only purpose is to achieve consistency with the IAEA regulations we should attempt to get the change made in those regulations.

Sincerely,

David R. Smith

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