NRC regulations compatible with 1973 IAEA transportation regulations. IAEA has subsequently corrected these errors in the 1985 edition of its transportation regulations.

Section 71.20(b)(3), as currently written, limits the mass of graphite to "* * * 150 times the total mass of uranium-235 plus plutonium." Section 71.20(c)(3), in the final rule, would be amended to read as follows: "The total mass of graphite present does not exceed 7.7 times the total mass of uranium-235 plus plutonium." Section 71.24(c)(4) would be similarly revised to change the limits on graphite from 150 to 7.7 times the total mass of uranium-235 plus plutonium.

NRC is correcting these errors in this final rule. The affected sections may bear on the criticality safety of fissile materials in transport. In addition, these corrections are expected to have minimal impact because there are no shipping casks currently being used that were designed using the erroneous provisions.

Summary and Resolution of Public Comments

There were 171 letters of comment received on the proposed rule from industry, State, and local governments; environmental organizations; medical facilities; and members of the public. A discussion of general comments is presented below, followed by responses to comments on specific sections of the proposed rule.

One of the most frequent comments noted differences among NRC, DOT, and IAEA definitions and requirements where there were no reasons for the differences. Many of the differences between NRC and DOT requirements resulted from the long period of time between publication of the NRC proposed rule (June 8, 1988) and publication of the DOT proposed rule (November 14, 1989; 54 FR 47454). The two proposed rules were intended to be published on or about the same date but circumstances did not permit concurrent publication. Between publication of the NRC and DOT rules, IAEA published a complete set of minor changes and changes of detail to its regulations. These changes were not contained in the NRC proposed rule, but were introduced in the DOT proposed rule. In addition, a large number of printing errors appeared in the text of the NRC proposed rule. Only the most significant errors were rectified in a correction notice published June 22, 1988 (53 FR 23484). The remaining inconsistencies have been corrected in the final rule.

Another frequently raised comment was in response to NRC's inclusion of new criteria for the air transportation of plutonium. Out of 171 total letters of comment on the proposed rule, 119 of those letters were concerned with the single issue of air transportation of plutonium. In general, these letters requested that NRC codify the NUREG-0360 criteria for the safe air transportation of plutonium, notwithstanding urging by the U.S. Department of Energy (DOE) that NRC withhold codification until it could consider rules being developed by IAEA for the safe air transportation of plutonium. Many of these letters, primarily from residents of Alaska, attributed development of the NUREG-0360 1 criteria to U.S. Senator Frank Murkowski. However, the criteria in NUREG-0360 were developed by the NRC in response to Public Law 94–79, enacted in 1975. (Senator Murkowski sponsored much more recent legislation on transportation of plutonium by air, identified as Section 5062 of Public Law 100-203, for which regulatory criteria have not been developed.) NRC has relied on the NUREG-0360 criteria for plutonium transportation by air since the criteria were published in 1978. DOE's request that NRC withhold the codification of the NUREG-0360 criteria while NRC considers the IAEA alternative cannot be accommodated because there is no existing IAEA alternative to consider and none is expected for several years. Although the IAEA development process has begun, the process is long and multifaceted. Predictions as to final content of an IAEA alternative cannot be made at this time. It also should be noted that, under Public Law 94–79, the proposed criteria would apply to any U.S. import, export, or domestic plutonium air transport regardless of IAEA regulations. Accordingly, the plutonium air transport criteria are incorporated in the final rule.

Section 71.0 Purpose and Scope

One comment suggested that § 71.0 (a) could be clarified by referring to the need for a Type B package rather than to licensed material in excess of a Type A quantity. Section 71.0 (a)(2) would then read "Procedures and standards for NRC approval of packaging and

shipping procedures for fissile material and for other licensed material required by this Part to be transported in a Type B packaging."

Although the suggested wording may be a good description of Part 71, Fissile Type A packages are still subject to NRC approval. Therefore a scope based on quantity of radioactive material is better than a scope based on a single type of package.

Section 71.4 Definitions

One comment noted that the term "licensed material" is used in Part 71 in several locations, but is not defined in Part 71. In response to this comment, NRC has added the definition of "licensed material," as codified in 10 CFR Part 39, to the definitions in Part 71. The term "licensed material" only includes radioactive material licensed by the NRC. One comment noted that in defining the term "exclusive use," the parenthetical note "* * * also referred to in other regulations as 'sole use' or 'full load''' is no longer necessary. Those other terms have been almost completely phased out, and IAEA has eliminated the clarifying note. NRC agrees and also has eliminated the clarifying note.

One comment noted that the definition of "exclusive use" requires that loading and unloading be performed by personnel having radiological training and resources appropriate for safe handling of the consignment. However, the definition provides no criteria to indicate what that training should be. NRC believes this is an area where the regulation includes a sufficient level of detail to define the intent of the provision. NRC further notes that DOT has established requirements for hazardous material employee training (see 49 CFR Part 172, Subpart H, §§ 172.700-172.704, effective July 2, 1992).

One comment suggested that the term "transport index" specify that the number be rounded up "to the next tenth" rather than "to the first decimal place." NRC believes that either terminology is adequately clear, and is retaining the original wording for uniformity. This wording has been used satisfactorily over a number of years.

One comment suggested that the "Natural uranium" definition should be clarified to indicate that the phrase "the remainder being uranium-238" refers strictly to a weight basis, not to a radioactivity basis. NRC has made the clarification.

One comment raised the question whether "licensee" and "licensee of the Commission" are synonymous, and whether the terms include "persons

¹Copies of NUREG-0360 may be purchased from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20013-7082. Copies are also available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. A copy is also available for inspection and copying for a fee in the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC.