licensed by an Agreement State," so that the general licenses of §§ 71.12-71.24 could apply. NRC asserts that the terms "licensee" and "licensee of the Commission" are synonymous. For uniformity, the NRC has eliminated the longer of the two terms in the final rule. Neither term includes Agreement State licensees. However, Agreement State licensees engaging in activities in non-Agreement States, or in offshore waters, under the reciprocity provisions of 10 CFR Part 150, "Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters under Section 274," are subject to the requirements of 10 CFR Part 71. In such instances, the NRC general licenses mentioned above apply to Agreement State licensees.

One comment noted that the term "specific activity" should only be used when describing the radioactivity of a radionuclide per unit mass of the element. When describing the radioactivity per unit mass of a material in general, the comment suggested the use of the words "concentration of radioactivity." NRC has been unable to confirm any preferred limited use of the term "specific activity," and, in view of the years of successful international use of the term in its broader sense, plans to continue that broader use.

One comment noted that the NRC and DOT definitions of "exclusive use" are not identical, and that the DOT definition appears preferable. In the final rules promulgated by NRC and DOT, the definitions of "exclusive use" are identical.

One comment noted a difference in quantities, for DOT's proposed rule "highway route controlled quantities," in 49 CFR 173.403, and for NRC's "advanced notification of shipment of nuclear waste" requirements in 10 CFR 71.97. The limits were intended to be the same. As the comment suggested, the error (by NRC) was caused by the rounding of the International System (of units) (SI) and customary units and has been corrected in this final rule.

Section 71.4 Definitions (Dual Unit System—The International System of Units Followed or Preceded by U.S. Standard or Customary Units).

Ten comments suggested both support for the dual unit system used in both NRC and DOT proposed regulations and potential problems that might result from a dual unit system. Several other comments suggested that NRC and DOT be consistent in the use of units. NRC and DOT intend to use dual units in specifying the regulatory requirements. The introductory language to § 71.4 states that the different units are

functionally equivalent and can be used interchangeably for purposes of this part. There are no paperwork requirements in Part 71 (e.g., records, reports) where the mandatory use of units is specified. DOT regulations also specify regulatory requirements in terms of dual units. In 49 CFR 171.10, DOT specifies that the SI units are intended to serve as the standard, but that the customary units (rounded) are included to provide a functionally equivalent limit. The dual unit approaches used by NRC and DOT are compatible.

In addition, DOT specifies, in 49 CFR Part 172, the units that must be used to satisfy the communication standards for shipping papers and package labels. Sections 172.203(d)(4) and 172.403(g)(2) require that shipping papers and package labels be completed either in SI units alone or in SI units and customary units. These requirements also permit, for a period of one year after the effective date of the final rule, the use of customary units on shipping papers and package labels for domestic shipments only.

One comment noted that the double conversion from customary units to SI units, and back to customary units produces specifications that are out of line with standard material sizes. For example, a test with what was a standard 6-inch-diameter mild steel bar, with an edge radius of ½ inch, was proposed as a test with a 5.91-inch diameter mild steel bar, with an edge radius of 0.236 inch. The converted customary units of length and weight have been returned to their original values in the final rule.

One comment suggested greater consistency of units between the NRC and DOT transportation regulations and the Commission's "Standards for Protection against Radiation" in 10 CFR Part 20. Since the NRC and DOT transportation rules were proposed, NRC has revised 10 CFR 20.1004, 'Units of Radiation Dose," and 10 CFR 20.1005, "Units of Radioactivity," to permit the use of either customary or SI units, These revisions achieve greater consistency of units among transportation and radiation protection regulations.

One comment noted that differences between IAEA and Part 71 A values (expressed in conventional units) may cause problems in international transport. The curie values in Safety Series #6, Table I are approximate, rounded down from the TBq values after conversion to Ci, whereas the curie values in Table A–1 Part 71 are converted from the TBq values to three significant figures without rounding down. The Part 71 method was used

because it yields values that more closely approximate previous Table A–1 values. As noted earlier in this preamble, DOT regulations will require the use of the SI units in shipping papers and labels for international shipments (although conventional units may be used in addition to the SI units). The use of SI units should retain consistency with the IAEA regulations.

One comment suggested that the term "transport index" be defined using both customary and SI units, as IAEA has done. The proposed definition was expressed only in customary units. NRC agrees with this suggestion and has adopted the DOT definition of "transport index" which includes both customary and SI units.

Section 71.4 Definitions (LSA and SCO in Particular)

Several comments related to clarification of LSA definitions.

Two comments noted the typographical error in the proposed rule in which the "water with tritium" concentrations for LSA–II were printed as 27.0 Ci/ $\lambda$  (1 TBq/ $\lambda$ ), rather than as 27.0 Ci/I (1 TBq/I). Two other comments noted that the numerical values differed from those in the DOT proposed rule (20 Ci/I and 0.8 TBq/I, respectively). One comment stated a preference for the 27.0 Ci/I limit

NRC values in the proposed rule were derived from the IAEA and DOT values by rounding up the terabequerel limit and then converting to curies. For consistency, NRC has adopted the IAEA and DOT values in the final rule.

Three comments were concerned with the definition of LSA-I. The first comment noted that material generated from the extraction of uranium or thorium was not classified into any LSA category. The comment recommended an LSA-I classification for this material. Another comment recommended that the term "contaminated earth" in LSA-I be expanded to include "soil, earth, concrete rubble, and other bulk debris." A third comment expressed concern that mill tailings exceeding 10<sup>-6</sup> A<sub>2</sub>/g could not be shipped in bulk under the proposed rule. The comment recommended that either mill tailings be specifically included in the definition of LSA-I without an activity or concentration limit, or the specific activity limit for LSA-I be increased to  $4x10^{-6} A_2/g$ .

NRC agrees that ore-like materials (materials with highly uniform distribution of small quantities of radionuclides) should be transported as LSA-I material. Accordingly, the definition of LSA-I has been changed from "contaminated earth \* \* \* " to