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INCORPORATED

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DOCKET NUMBER
PROPOSED RULE

17

PR-71(44FR48235)

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

Attn: Docketing and Service Branch

Dear Sir:

Attached are comments on the proposed rule for 10 CFR71 as it appeared in the Federal Register Vol. 44, No. 161, Pages 48234-257 on Friday, August 17, 1979. Included are comments on the supporting value/impact analysis. If you have any questions, I can be reached at FTS 239-3343.

Yours very truly,

Allan A. Gates
Plant Shipping Coordinator

AAG:irc
Att

Acknowledged by card... 10/29 [Signature]

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A. GENERAL

1. In addition to the concurrent revision of 10CFR71 and 49CFR170-179, a revision should be made to 10CFR20.205, Procedures for picking up, receiving, and opening packages and Regulatory Guide 7.9, Standard Format and Content of Part 71 Applications for Approval of Packaging of Type B, Large Quantity and Fissile Radioactive Material.
2. Although the use of freight containers is addressed in both the value/impact analysis and 49CFR127, it is not mentioned in 10CFR71. Should there not be some acknowledgement of their use?
3. Reassessment of the arbitrary limits of 1000 Ci set for A₁ and A₂ is now in order. This system has been in use for six years on an international basis and actual experience can now be taken into account. Also, there must be more recent data and revised guidelines that could be used. The most recent reference used in the original work was written in 1967.

B. ENVIRONMENTAL IMPACT APPRAISAL OF CHANGES TO RADIOACTIVE MATERIAL PACKAGING AND TRANSPORTATION REGULATIONS DATED MARCH 1979.

1. Page 7, Par. 1, sentences 1 & 2: Since the 3 Ci and 20 Ci correspond to the maximum quantities for a package of devices, the proposed limit for a solid should be A or 100 Ci for both normal and special form rather than 0.1 Ci.
2. Page 7, lines 4-6 and 15-17: It is stated here that the material package limits for limited quantities will decrease whereas in the Appendix A to Enclosure "C" more limited quantity packages are predicted in four different places. That is, in items 4, 6, 10 and 15 on Pages 29, 30, 31, and 34 respectively the limits are claimed to be increased.
3. Page 27, Par. 1: Should not the impact of the proposed rule change on LCF's also be determined for the normal conditions of transport? Also, I would like to see some extrapolation of the number of shipments in 74-75 to the higher figures expected when these new regulations take effect, i.e., the 1980's. (Spent fuel and waste shipments are expected to increase considerably in this period.) On the other hand, new safeguards procedures introduced both by DOE and NRC may well reduce the accident release fraction since couriers may be able to take swift containment action.

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4. Page 28, item 2: If, as stated in NUREG-0170, LSA (strong tight packaging) and Type A packages have the same probability of releases, accidents, and release fractions, what good will it do to require all LSA packagings to be type A?
5. Page 29, item 4: The average of the Type B package activity can not be 50% of the Type A. It must be over 100% of the Type A activity.
6. Page 31, item 9: If these packages average 1169 Ci, then they are large quantity-not Type B.
7. Page 32, item 13: In order for the subsequent analysis to be correct, the content/package must be 1.1 Ci.

C. 10CFR71, PACKAGING OF RADIOACTIVE MATERIAL FOR TRANSPORTATION AND TRANSPORTATION OF RADIOACTIVE MATERIAL UNDER CERTAIN CONDITIONS.

1. 71.4 (e): There are isotopes of Am, Cf and Cm that are also fissile.
2. 71.32 (a): What is "an appropriate safety factor to cover abrupt lifting"?
3. 71.35 (a) (2): Take into account that greater moderation is sometimes offered by concrete.
4. 71.36: This containment criteria for Pu shipments is in conflict with 49CFR127.117(b)(2) where a DOT 6M container is authorized to transport Pu compounds. Also include other nuclides with the same A₁ and A₂ values as plutonium, i.e., Cf-249, Cf-252, Pa-231. And exclude Pu-241.
5. 71.53 (b): Omit "and leaktightness." This test is only for purpose of demonstrating integrity.
6. 71.54 (C): Can we assume that, if the maximum equilibrium temperature can be predicted with certainty, the actual temperature would not have to be measured? If so, please specify.
7. 71.54 (d): We assume that internal radioactive contamination is not regulated.
8. 71.54 (d): Omit "as low as practicable." It is sufficient to state the maximum permissible levels.

9. 71.54 Table VI; IAEA regulations allow contamination from natural and depleted uranium and natural thorium to be 10^{-3} $\mu\text{Ci}/\text{cm}^2$ instead of 10^{-4} $\mu\text{Ci}/\text{cm}^2$.
10. Appendix A: There are several minor differences between these tests and those in 49CFR127.611 for normal conditions of transport.
11. Appendix B: There should be a requirement that the tests for normal conditions of transport be performed on the specimen prior to subjecting it to the hypothetical accident conditions.
12. Tables C-1, C-2, & C-3

GENERAL

Legibility would be improved by increasing the size of the numbers, using postscripts, and leaving a space after every five entries. Table usefulness would be improved by addition of a column for specific activities.

Table C-1

Discrepancies between this and other A Tables, types & general comments

Item	49CFR 127.305 (A ₂ values in Ci)	IAEA Table VII	TABLE C-1	Remarks
Column head				1 & 2 are subscripts
Ba-140	20	20	add	Californium
Cf-249				
Cf-252	0.009	0.002	0.009	
Cs-134	10	7	10	
Cs-135	100	60	1000	
Cs-137	20	9	20	
Kr-85 uncom.				Second Kr-85(UC) should be Kr-87(UC)
Nb-93 m	1000	200	200	A ₁ = A ₂ in both tables
Pb-201	30	missing	20	
Am-147				<u>Sm</u>
Tc-97	400	400	80	
Tc-99	82	80	80	
Te-132				<u>Te-132</u>
Th-irradiated				extend dotted line
Also add Am-242, Cf-251 & Cm-247				
o <u>Table C-2</u> Title and Col. head.				1 is subscript
o <u>Table C-3</u> Title and Col. head 82 and above				3 is subscript add decimal point to 002

13. Appendix D(b) (3): Refer to the billet in (b) (2) rather than repeating the description.
14. Appendix D (c) (2): Could a helium leak detector test be substituted for these tests? Could not (c)(2) just refer back to (c) (1) rather than repeating?
15. Appendix D (b) (1) and 71.32: Consider requiring that special form materials or other inner vessels be supported within the outer packaging to preclude secondary damage from impact.
16. Types
 - o 71.32 (b): package
 - o 71.34 (g): temperature
 - o 71.35 (a) (2): fissile
 - o 71.54 Table VI: natural
 - o Appendix A, 2nd Par: Change -29°F to -20°F
 - o Appendix C I. (1): (g, n)
 - o Appendix C I. (2)(a)(i): T was omitted twice.

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