

complete safety analysis, including documentation of any tests, demonstrating that the special form material meets the requirements of §173.469. An IAEA Certificate of Competent Authority issued for the special form material may be used to satisfy this requirement.

(b) Prior to the first export shipment of a special form Class 7 (radioactive) material from the United States, each offeror shall obtain a U.S. Competent Authority Certificate for the specific material. For special form material manufactured outside the United States, an IAEA Certificate of Competent Authority from the country of origin may be used to meet this requirement.

(c) Each request for a U.S. Competent Authority Certificate as required by the IAEA regulations must be submitted in writing, in triplicate, by mail or other delivery service to the Associate Administrator. Alternatively, the request with any attached supporting documentation submitted in an appropriate format may be sent by facsimile (fax) to (202) 366-3753 or (202) 366-3650, or by electronic mail (e-mail) to "ramcert@dot.gov.". Each request is considered in the order in which it is received. To allow sufficient time for consideration, requests must be received at least 90 days before the requested effective date. Each petition for a U.S. Competent Authority Certificate must include the following information:

(1) A detailed description of the material, or if a capsule, a detailed description of the contents. Particular reference must be made to both physical and chemical states;

(2) A detailed statement of the capsule design and dimensions, including complete engineering drawings [22cm × 30cm (8½ inches × 11 inches)] and schedules of material, and methods of construction;

(3) A statement of the tests that have been made and their results; or evidence based on calculative methods to show that the material is able to pass the tests; or other evidence that the special form Class 7 (radioactive) material complies with §173.469;

(4) For the original request for a Competent Authority Certificate, evi-

dence of a quality assurance program based on international, national or other standards, for the design, manufacture, testing, documentation, use, maintenance and inspection, as appropriate, of all special form material offered for transport by the requester; and

(5) A description of any proposed pre-shipment actions, such as leak testing, for use in the consignment of special form radioactive material for transport.

(d) Paragraphs (a) and (b) of this section do not apply in those cases where  $A_1$  equals  $A_2$  and the material is not required to be described on the shipping papers as "Radioactive Material, Special Form, n.o.s."

[Amdt. 173-244, 60 FR 50307, Sept. 28, 1995, as amended at 66 FR 45379, Aug. 28, 2001; 67 FR 61015, Sept. 27, 2002; 69 FR 3693, Jan. 26, 2004]

**§ 173.477 Approval of packagings containing greater than 0.1 kg of non-fissile or fissile-excepted uranium hexafluoride.**

(a) Each offeror of a package containing more than 0.1 kg of uranium hexafluoride must maintain on file for at least one year after the latest shipment, and provide to the Associate Administrator on request, a complete safety analysis, including documentation of any tests, demonstrating that the package meets the requirements of §173.420. An IAEA Certificate of Competent Authority issued for the design of the packaging containing greater than 0.1 kg of non-fissile or fissile-excepted uranium hexafluoride may be used to satisfy this requirement.

(b) Prior to the first export shipment of a package containing greater than 0.1 kg of uranium hexafluoride from the United States, each offeror shall obtain a U.S. Competent Authority Certificate for the packaging design. For packagings manufactured outside the United States, each offeror shall comply with §173.473.

(c) Each request for a U.S. Competent Authority Certificate as required by the IAEA regulations must be submitted in writing, in triplicate, by mail or other delivery service to the Associate Administrator. Alternatively, the request with any attached supporting

documentation submitted in an appropriate format may be sent by facsimile (fax) to (202) 366–3753 or (202) 366–3650, or by electronic mail (e-mail) to *ramcert@dot.gov*. Each request is considered in the order in which it is received. To allow sufficient time for consideration, requests must be received at least 90 days before the requested effective date. Each request for a U.S. Competent Authority Certificate must include the following information:

(1) A safety analysis report which, at a minimum, provides a detailed description of the packaging and contents; a description of the manufacturing process used for the packaging; and details of the tests conducted and copy of their results, evidence based on calculative methods to show that the package is able to pass the tests, or other evidence that the package complies with §173.420; and

(2) For the original request for a Competent Authority Certificate, evidence of a quality assurance program.

[69 FR 3693, Jan. 26, 2004]

### Subparts J–O [Reserved]

#### APPENDIX A TO PART 173 [RESERVED]

#### APPENDIX B TO PART 173—PROCEDURE FOR TESTING CHEMICAL COMPATIBILITY AND RATE OF PERMEATION IN PLASTIC PACKAGING AND RECEPTACLES

1. The purpose of this procedure is to determine the chemical compatibility and permeability of liquid hazardous materials packaged in plastic packaging and receptacles. Alternatives for this procedure are permitted as specified in §173.24(e)(3)(iii) of this subchapter.

2. Compatibility and rate of permeation are determined by subjecting full size plastic containers (or smaller containers as permitted in paragraph 4 of this appendix) and hazardous material lading to one of the following combinations of time and temperature:

- Test Method 1: 180 days at a temperature no lower than 18 °C. (64 °F.)
- Test Method 2: 28 days at a temperature no lower than 50 °C. (122 °F.)
- Test Method 3: 14 days at a temperature no lower than 60 °C. (140 °F.)

3. Regardless of which test method is used, at least three sample containers shall be tested for each combination of hazardous

material and size and design of container. Fill containers to rated capacity with the specific hazardous material (at the concentration to be transported) and close as for shipment. For the first and last 24 hours of storage under the selected test method, place the containers with closures downward, except that containers fitted with a vent are so placed on each occasion for five minutes only.

4. For testing under Test Method 2 or 3 in those instances where it is not practicable to use full size containers, smaller containers may be used. The small container shall be manufactured by the same process as the larger container (for example, using the same method of molding and processing temperatures) and be made of identical resins, pigments and additives.

5. Determine filled container weight or net weight of contents both before and after storage under the selected test method. Rate of permeation is determined from loss of hazardous materials contents, during the conduct of the test, expressed as a percentage of the original weight.

6. After storage under the selected test method, the container shall be drained, rinsed, filled to rated capacity with water and, with filled container at ambient temperature, dropped from a height determined in accordance with §173.603(e) of this subchapter onto a rigid non-resilient, flat and horizontal surface.

7. Each of the following constitute test failure:

a. Visible evidence of permanent deformation due to vapor pressure build-up or collapse of walls, deterioration, swelling, crazing, cracking, excessive corrosion, oxidization, embrittlement, leakage, rupture or other defects likely to cause premature failure or a hazardous condition.

b. For materials meeting the definition of a poison according to this subchapter, a rate of permeation in excess of 0.5% determined over the test period. For all other hazardous materials, a rate of permeation in excess of 2.0% determined over the test period.

[Amdt. 173–176, 49 FR 24691, June 14, 1984, as amended by Amdt. 173–224, 55 FR 52670 Dec. 21, 1990; 56 FR 66279, Dec. 20, 1991; Amdt. 173–234, 58 FR 51533, Oct. 1, 1993; 66 FR 45379, Aug. 28, 2001]

#### APPENDIX C TO PART 173—PROCEDURE FOR BASE-LEVEL VIBRATION TESTING

Base-level vibration testing shall be conducted as follows:

1. Three sample packagings, selected at random, must be filled and closed as for shipment. A non-hazardous material may be used in place of the hazardous material if it has essentially the same physical characteristics.