square cm (0.42 square inch) cross-section. Each radial support must be welded at one end to the containment vessel by a continuous weld or to an inner steel band of at least 6 mm (¼-inch) by 2.5 cm (1 inch) by a continuous weld at radial positions not exceeding 60 degrees from the center of the package. The inner band, when used, must be welded to the inner containment vessel by at least 6 equally spaced 5 cm (2-inch) welds on each edge of the band. The opposite end of the radial support must be welded by a continuous weld to an outer steel band of at least 6 mm (¼-inch) by 2.5 cm (1 inch). The outer steel band must be welded to the outer shell by at least 6 equally spaced welds on each edge of the top band, such that the inner vessel is fixed at least 5.7 cm (2.25 inches) from the top and bottom of the drum. The spacer mechanism must be welded as specified near each end of the containment vessel so as not to interfere with the vessel closure. For a packaging greater than 210 L (55-gallon) capacity, the additional spacer mechanism must be located at approximately midpoint along the length of the inner vessel.

(d) The void between the inner containment vessel and the outer shell must be completely filled with bagged or tamped vermiculite (expanded mica), with a density of at least 0.072 g/cc (4.5 pounds per cubic foot). Loose, untamped vermiculite is not authorized.

[Amdt. 178–1, 33 FR 14934, Oct. 4, 1968, as amended by Amdt. 178–35, 39 FR 45246, Dec. 31, 1974; 40 FR 2435, Jan. 13, 1975; 40 FR 44327, Sept. 26, 1975. Redesignated by Amdt. 178–97,55 FR 52716, Dec. 21, 1990; 66 FR 45387, 45389, Aug. 28, 2001]

### § 178.352–4 Welding.

Welding must be of material having a melting point in excess of 800 °C (1475 °F) (except that for packages constructed prior to March 31, 1975, this temperature may be 540 °C (1000 °F)), with a joint efficiency of at least 0.85. This requirement applies to welding used in adding spacer rods to comply with § 178.352–3(c)(1).

[Amdt. 178–35, 39 FR 45246, Dec. 31, 1974. Redesignated by Amdt. 178–97, 55 FR 52716, Dec. 21, 1990, as amended at 63 FR 37462, July 10, 1998]

### § 178.352–5 Closure.

(a) The outer drum closure must be at least a 12-gauge bolted ring with drop forged lugs, one of which is threaded, and having at least a 1.6 centimeter (⅝-inch) diameter steel bolt and a lock nut, or equivalent device.

(b) The closure device must have a means for the attachment of a tamper-proof lock wire and seal, or equivalent.

[Amdt. 178–1, 33 FR 14935, Oct. 4, 1968, as amended by Amdt. 178–35, 39 FR 45246, Dec. 31, 1974. Redesignated by Amdt. 178–97, 55 FR 52716, Dec. 21, 1990]

### § 178.352–6 Markings.

(a) Markings on each container, by die stamping on a metal plate attached to the outside of the outer container by spot welding, or other equally efficient method, in letters and figures of at least one-fourth inch in height, as follows:

(1) ''DOT–6L''.

(2) ''FISSILE RADIOACTIVE MATERIAL.''

(3) Name or symbol of person making the marks specified in paragraph (a) (1) of this section. Symbol, if used, must be registered with the Associate Administrator.

(4) Gauge of metal of the outer steel drum in the thinnest part, rated capacity of the outer steel drum in gallons, and the year of manufacture of the assembled package (e.g., 18–110–68). When the gauge of the metal in the drum wall differs from that in the head, both must be indicated with a slanting line between, and with the gauge of the body indicated first (e.g., 18/16–110–68 for 18-gauge body and 16-gauge head).

(b) [Reserved]

[Order 70, 31 FR 6496, Apr. 29, 1966. Redesignated at 32 FR 5606, Apr. 5, 1967. Redesignated by Amdt. 178–97, 55 FR 52716, Dec. 21, 1990; 66 FR 45386, Aug. 28, 2001]