

§ 178.358-1 General requirements.

(a) Each overpack must meet all of the applicable requirements of §§173.24, 173.411, and 173.412 of this subchapter.

(1) Specification 21PF-1 overpacks includes the series of 21PF-1, 21PF-1A, and 21PF-1B models. Details of the three models are included in DOE CAPE-1662, Rev. 1 and Supplement 1 (IBR, see §171.7 of this subchapter).

(2) Drawings in CAPE-1662, Rev. 1 and Supplement 1, that include bills of materials, and KSS-471 (IBR, see §171.7 of this subchapter), are a part of this specification.

(b) Each overpack is authorized for use in applications where the maximum gross weight of the package, including the inner container and contents does not exceed 3725 kg (8200 pounds), (horizontally-loaded specification 21 PF-1 unit), or 3900 kg (8600 pounds), (end-loaded specification 21 PF-2 unit).

(c) The general configuration of the overpack must be a right cylinder, consisting of a steel inner liner (at least 16-gauge) and steel outer shell (at least 14-gauge) with the intervening cavity filled with a molded-in-place, fire-resistant, phenolic foam insulation and interspersed wooden members for bracing and support. Two specific configurations are authorized; a horizontal loading unit (specification 21PF-1) consisting of insulated base and top sections jointed in a longitudinal peripheral closure joint; or an end-loading unit (specification 21PF-2), consisting of an insulated main section, a steel plate liner lid, and an insulated end cap. For either type each joint between sections must be stepped at least 1.8 cm (0.75-inch) and gaps between mating surfaces may not exceed 5 mm (0.2-inch). Bolted closures, which must each be gasketed against moisture penetration, must be in accordance with CAPE-1662. Each bolt must be equipped with a locking device to prevent loosening from vibration. Outer steel bracing and support framework must be attached to the shell to facilitate normal handling.

(d) Specification 21PF-1 overpacks in use or under construction before April 1, 1989, must be modified to Specification 21PF-1A before April 1, 1991. All new construction to Specification 21PF-1 beginning after March 31, 1989, must meet Specification 21PF-1B. Use of unmodified 21PF-1 overpacks after March 31, 1991, is prohibited.

[Amdt. 178-35, 39 FR 45250, Dec. 31, 1974; 40 FR 2435, Jan. 13, 1975, as amended by Amdt. 178-90, 53 FR 36551, Sept. 20, 1988. Redesignated by Amdt. 178-97, 55 FR 52716, Dec. 21, 1990; 66 FR 45387, Aug. 28, 2001; 68 FR 75757, Dec. 31, 2003]