

of an outer packaging surrounded with a foam-in-place packaging material;

(2) The completed package must meet the Packing Group II performance level;

(3) The gross weight of the package may not exceed 15.2 kg (33.4 pounds); and

(4) The cumulative amount of potassium hydroxide solution in all of the batteries in each package may not exceed 4 ounces (0.11 kg).

(k) *Damaged wet electric storage batteries.* (1) Damaged batteries incapable of retaining battery fluid inside the outer casing during transportation may be transported by highway or rail provided the batteries are transported in non-bulk packaging, meet the requirements of paragraph (a) of this section, and are prepared for transport under one or more of the following conditions:

(i) Drain the battery of fluid to eliminate the potential for leakage during transportation;

(ii) Individually pack the battery in a leak proof intermediate package with sufficient compatible absorbent material capable of absorbing the release of any electrolyte and place the intermediate packaging in a leakproof outer packaging that conforms to the general packaging requirements of subpart B of this part;

(iii) Pack the battery in a salvage packaging in accordance with the provisions of §173.3(c); or

(iv) When packaged with other batteries or materials (e.g., on pallets or non-skid rails) and secured to prevent movement during transport, pack the battery in leakproof packaging to prevent leakage of battery fluid from the packaging under conditions normally incident to transportation.

(2) Shipment of damage batteries in accordance with this paragraph is eligible for exception under paragraph (e) of this section.

[74 FR 2257, Jan. 14, 2009, as amended at 81 FR 3673, Jan. 21, 2016; 81 FR 18540, Mar. 31, 2016; 81 FR 35541, June 2, 2016]

§ 173.159a Exceptions for non-spillable batteries.

(a) Exceptions for hazardous materials shipments in the following paragraphs are permitted only if this sec-

tion is referenced for the specific hazardous material in the §172.101 table or in a packaging section in this part.

(b) Non-spillable batteries offered for transportation or transported in accordance with this section are subject to the incident reporting requirements. For transportation by aircraft, a telephone report in accordance with §171.15(a) is required if a fire, violent rupture, explosion or dangerous evolution of heat (*i.e.*, an amount of heat sufficient to be dangerous to packaging or personal safety to include charring of packaging, melting of packaging, scorching of packaging, or other evidence) occurs as a direct result of a non-spillable battery. For all modes of transportation, a written report in accordance with §171.16(a) is required if a fire, violent rupture, explosion or dangerous evolution of heat occurs as a direct result of a non-spillable battery.

(c) Non-spillable batteries are excepted from the packaging requirements of §173.159 under the following conditions:

(1) Non-spillable batteries must be securely packed in strong outer packagings or secured to skids or pallets capable of withstanding the shocks normally incident to transportation. The batteries must meet the requirements of §173.159(a), be loaded or braced so as to prevent damage and short circuits in transit, and any other material loaded in the same vehicle must be blocked, braced, or otherwise secured to prevent contact with or damage to the batteries. A non-spillable battery which is an integral part of and necessary for the operation of mechanical or electronic equipment must be securely fastened in the battery holder on the equipment.

(2) The battery and outer packaging must be plainly and durably marked "NON-SPILLABLE" or "NON-SPILLABLE BATTERY." The requirement to mark the outer package does not apply when the battery is installed in a piece of equipment that is transported unpackaged.

(d) Non-spillable batteries are excepted from all other requirements of this subchapter when offered for transportation and transported in accordance with paragraph (c) of this section and the following:

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(1) At a temperature of 55 °C (131 °F), the battery must not contain any unabsorbed free-flowing liquid, and must be designed so that electrolyte will not flow from a ruptured or cracked case; and

(2) For transport by aircraft, when contained in a battery-powered device, equipment or vehicle must be prepared and packaged for transport in a manner to prevent unintentional activation in conformance with §173.159(b)(2) of this Subpart.

(3) For transport by aircraft, must be transported as cargo and may not be carried onboard an aircraft by passengers or crewmembers in carry-on baggage, checked baggage, or on their person unless specifically excepted by §175.10.

[74 FR 2258, Jan. 14, 2009, as amended at 75 FR 72, Jan. 4, 2010; 77 FR 60942, Oct. 5, 2012; 78 FR 1085, Jan. 7, 2013; 78 FR 15328, Mar. 11, 2013]

§ 173.160 Bombs, smoke, non-explosive (corrosive).

Bombs, smoke, non-explosive may be shipped provided they are without ignition elements, bursting charges, detonating fuses or other explosive components. They must be packaged in metal (4A, 4B, 4N), wooden (4C1, 4C2), plywood (4D), or reconstituted wood (4F), fiberboard (4G) or solid plastic (4H2) boxes, or metal (1A2, 1B2, 1N2), plastic (1H2), plywood drums (1D), or fiber (1G) drums that meet Packing Group II requirements.

[78 FR 1085, Jan. 7, 2013]

§ 173.161 Chemical kits and first aid kits.

(a) *Applicability.* Chemical kits and first aid kits contain one or more compatible items of hazardous materials in boxes, cases, etc. that, for example, are used for medical, analytical, diagnostic, testing, or repair purposes.

(b) *Authorized materials.* (1) The kits may only contain hazardous materials for which packaging exceptions are provided in column 8(A) of the §172.101 Hazardous Materials Table in this subchapter. For transportation by aircraft, the kits may only contain quantities of hazardous materials authorized as excepted quantities or as limited quantities in §§173.4a and 173.27(f)

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of this part, respectively. Materials forbidden for transportation by passenger aircraft or cargo aircraft may not be included in the kits.

(2) The packing group assigned to the chemical kit and first aid kit as a whole must be the most stringent packing group assigned to any individual substance in the kit. The packing group must be shown on the shipping paper. Where the kit contains only hazardous materials to which no packing group is assigned, the packagings shall meet the Packing Group II performance level. Where the kit contains only hazardous materials to which no packing group is assigned, the packing group does not have to be indicated on the shipping paper.

(c) *Packaging.* Except for transportation by aircraft or vessel, chemical kits and first aid kits must be packaged in combination packagings conforming to the packaging requirements of subpart B of this part. For transportation by aircraft or vessel, chemical kits and first aid kits must be packaged in specification combination packagings based on the performance level of the most stringent packing group of material contained within the kit. For transportation by aircraft, friction-type closures must be secured by secondary means and inner packagings intended to contain liquids must be capable of meeting the pressure differential requirements prescribed in §173.27(c) of this subchapter. Inner and outer packaging quantity limits for packages are as follows:

(1) Except for liquids of Division 5.2 (organic peroxide), inner packagings containing not more than 250 mL. Except for transportation by aircraft, for Division 5.2 (organic peroxide) liquids of Type B and C, inner packagings containing not more than 25 mL and for Division 5.2 (organic peroxide) liquids of Type D, E and F, inner packagings containing not more than 125 mL. For transportation by aircraft, for Division 5.2 (organic peroxide) liquids of Type D, E and F (only), inner packagings containing not more than 125 mL;

(2) Except for solids of Division 5.2 (organic peroxide) of Type B and C, inner packagings containing not more than 250 g. Except for transportation by aircraft, for a Division 5.2 (organic