

OHIO ADMINISTRATIVE CODE 1301:7-7-44
WATER-REACTIVE SOLIDS AND LIQUIDS

(A) SECTION 4401
GENERAL

(1) 4401.1 Scope. The storage and use of water-reactive solids and liquids shall be in accordance with this *rule*.

Exceptions:

1. Display and storage in Group M and storage in Group S occupancies complying with *paragraph (C)(11)(2703.11) of rule 1301:7-7-27 of the Administrative Code*.
2. Detonable water-reactive solids and liquids shall be stored in accordance with *rule 1301:7-7-33 of the Administrative Code*.

(2) 4401.2 Permits. Permits shall be required as set forth in *rule 1301:7-7-01 of the Administrative Code*.

(B) SECTION 4402
DEFINITIONS

(1) 4402.1 Definition. The following word and term shall, for the purposes of this *rule* and as used elsewhere in this code, have the meaning shown herein.

“Water-reactive material.” A material that explodes; violently reacts; produces flammable, toxic or other hazardous gases; or evolves enough heat to cause autoignition or ignition of combustibles upon exposure to water or moisture. Water-reactive materials are subdivided as follows:

“Class 3.” Materials that react explosively with water without requiring heat or confinement.

“Class 2.” Materials that react violently with water or have the ability to boil water. Materials that produce flammable, toxic or other hazardous gases, or evolve enough heat to cause autoignition or ignition of combustibles upon exposure to water or moisture.

“Class 1.” Materials that react with water with some release of energy, but not violently.

(C) SECTION 4403
GENERAL REQUIREMENTS

(1) 4403.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of water-reactive solids and liquids in amounts not exceeding the maximum allowable quantity per control area indicated in *paragraph (C)(1)(2703.1) of rule 1301:7-7-27 of the Administrative Code* shall be in accordance with *paragraphs (A)(2701) and (C)(2703) of rule 1301:7-7-27 of the Administrative Code* and *paragraphs (A)(4401) and (C)(4403) of this rule*.

(2) 4403.2 Quantities exceeding the maximum allowable quantities per control area. The storage and use of water-reactive solids and liquids in amounts exceeding the

maximum allowable quantity per control area indicated in *paragraph (C)(1)(2703.1) of rule 1301:7-7-27 of the Administrative Code* shall be in accordance with *rule 1301:7-7-27 of the Administrative Code* and this *rule*.

(D) SECTION 4404
STORAGE

(1) 4404.1 Indoor storage. Indoor storage of water-reactive solids and liquids in amounts exceeding the maximum allowable quantity per control area indicated in Table 2703.1.1(1) of *rule 1301:7-7-27 of the Administrative Code*, shall be in accordance with *paragraphs (A)(2701), (C)(2703) and (D)(2704) of rule 1301:7-7-27 of the Administrative Code* and this *rule*.

(a) 4404.1.1 Detached storage. Storage of water-reactive solids and liquids shall be in detached buildings when required by *paragraph (C)(8)(b)(2703.8.2) of rule 1301:7-7-27 of the Administrative Code*.

(b) 4404.1.2 Liquid-tight floor. In addition to the provisions of *paragraph (D)(12)(2704.12) of rule 1301:7-7-27 of the Administrative Code*, floors in storage areas for water-reactive solids and liquids shall be of liquid-tight construction.

(c) 4404.1.3 Waterproof room. Rooms or areas used for the storage of water-reactive solids and liquids shall be constructed in a manner which resists the penetration of water through the use of waterproof materials. Piping carrying water for other than approved automatic sprinkler systems shall not be within such rooms or areas.

(d) 4404.1.4 Water-tight containers. When Class 3 water-reactive solids and liquids are stored in areas equipped with an automatic sprinkler system, the materials shall be stored in closed water-tight containers.

(e) 4404.1.5 Storage configuration. Water-reactive solids and liquids stored in quantities greater than 500 cubic feet (14 m³) shall be separated into piles, each not larger than 500 cubic feet (14 m³). Aisle widths between piles shall not be less than the height of the pile or 4 feet (1219 mm), whichever is greater.

Exception: Water-reactive solids and liquids stored in tanks.

Class 2 water-reactive solids and liquids shall not be stored in basements unless such materials are stored in closed water-tight containers or tanks.

Class 3 water-reactive solids and liquids shall not be stored in basements.

Class 2 or 3 water-reactive solids and liquids shall not be stored with flammable liquids.

(f) 4404.1.6 Explosion control. Indoor storage rooms, areas and buildings containing Class 2 or 3 water-reactive solids and liquids shall be provided with explosion control

WATER-REACTIVE SOLIDS AND LIQUIDS

in accordance with *paragraph (K)(911) of rule 1301:7-7-09 of the Administrative Code*.

(2) 4404.2 Outdoor storage. Outdoor storage of water-reactive solids and liquids in quantities exceeding the maximum allowable quantity per control area indicated in Table 2703.1.1(3) of rule 1301:7-7-27 of the Administrative Code shall be in accordance with *paragraphs (A)(2701), (C)(2703) and (D)(2704) of rule 1301:7-7-27 of the Administrative Code* and this rule.

(a) 4404.2.1 General. Outdoor storage of water-reactive solids and liquids shall be within tanks or closed water-tight containers and shall be in accordance with *paragraphs (D)(2)(b)(4404.2.2) to (D)(2)(e)(4404.2.5) of this rule*.

(b) 4404.2.2 Class 3 distance to exposures. Outdoor storage of Class 3 water-reactive solids and liquids shall not be within 75 feet (22 860 mm) of buildings, lot lines, public streets, public alleys, public ways or means of egress.

(c) 4404.2.3 Class 2 distance to exposures. Outdoor storage of Class 2 water-reactive solids and liquids shall not be within 20 feet (6096 mm) of buildings, lot lines, public streets, public alleys, public ways or means of egress. A 2-hour fire barrier wall without openings or penetrations, and extending not less than 30 inches (762 mm) above and to the sides of the storage area is allowed in lieu of such distance. The wall shall either be an independent structure, or the exterior wall of the building adjacent to the storage area.

(d) 4404.2.4 Storage conditions. Class 3 water-reactive solids and liquids shall be limited to piles not greater than 500 cubic feet (14 m³).

Class 2 water-reactive solids and liquids shall be limited to piles not greater than 1,000 cubic feet (28 m³).

Aisle widths between piles shall not be less than one-half the height of the pile or 10 feet (3048 mm), whichever is greater.

(e) 4404.2.5 Containment. Secondary containment shall be provided in accordance with the provisions of *paragraph (D)(2)(b)(2704.2.2) of rule 1301:7-7-27 of the Administrative Code*.

(E) SECTION 4405 USE

(1) 4405.1 General. The use of water-reactive solids and liquids in amounts exceeding the maximum allowable quantity per control area indicated in Table 2703.1.1(1) or 2703.1.1(3) of rule 1301:7-7-27 of the Administrative Code shall be in accordance with *paragraphs (A)(2701), (C)(2703) and (E)(2705) of rule 1301:7-7-27 of the Administrative Code* and this rule.

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