

§ 555.221

27 CFR Ch. II (4-1-04 Edition)

TABLE: NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) OFFICIAL STANDARD NO. 492, 1968

*Notes of Table of Separation Distances of Ammonium Nitrate and Blasting Agents From Explosives or Blasting Agents*

(1) This table specifies separation distances to prevent explosion of ammonium nitrate and ammonium nitrate-based blasting agents by propagation from nearby stores of high explosives or blasting agents referred to in the table as the "donor." Ammonium nitrate, by itself, is not considered to be a donor when applying this table. Ammonium nitrate, ammonium nitrate-fuel oil or combinations thereof are acceptors. If stores of ammonium nitrate are located within the sympathetic detonation distance of explosives or blasting agents, one-half the mass of the ammonium nitrate is to be included in the mass of the donor.

(2) When the ammonium nitrate and/or blasting agent is not barricaded, the distances shown in the table must be multiplied by six. These distances allow for the possibility of high velocity metal fragments from mixers, hoppers, truck bodies, sheet metal structures, metal containers, and the like which may enclose the "donor." Where explosives storage is in bullet-resistant magazines or where the storage is protected by a bullet-resistant wall, distances and barricade thicknesses in excess of those prescribed in the table in § 555.218 are not required.

(3) These distances apply to ammonium nitrate that passes the insensitivity test prescribed in the definition of ammonium nitrate fertilizer issued by the Fertilizer Institute.<sup>1</sup> Ammonium nitrate failing to pass the test must be stored at separation distances in accordance with the table in § 555.218.

(4) These distances apply to blasting agents which pass the insensitivity test prescribed in regulations of the U.S. Department of Transportation (49 CFR part 173).

(5) Earth or sand dikes, or enclosures filled with the prescribed minimum thickness of earth or sand are acceptable artificial barricades. Natural barricades, such as hills or timber of sufficient density that the surrounding exposures which require protection cannot be seen from the "donor" when the trees are bare of leaves, are also acceptable.

(6) For determining the distances to be maintained from inhabited buildings, passenger railways, and public highways, use the table in § 555.218.

<sup>1</sup>Definition and Test Procedures for Ammonium Nitrate Fertilizer, Fertilizer Institute 1015-18th St. N.W. Washington, DC 20036.

**§ 555.221 Requirements for display fireworks, pyrotechnic compositions, and explosive materials used in assembling fireworks or articles pyrotechnic.**

(a) Display fireworks, pyrotechnic compositions, and explosive materials used to assemble fireworks and articles pyrotechnic shall be stored at all times as required by this Subpart unless they are in the process of manufacture, assembly, packaging, or are being transported.

(b) No more than 500 pounds (227 kg) of pyrotechnic compositions or explosive materials are permitted at one time in any fireworks mixing building, any building or area in which the pyrotechnic compositions or explosive materials are pressed or otherwise prepared for finishing or assembly, or any finishing or assembly building. All pyrotechnic compositions or explosive materials not in immediate use will be stored in covered, non-ferrous containers.

(c) The maximum quantity of flash powder permitted in any fireworks process building is 10 pounds (4.5 kg).

(d) All dry explosive powders and mixtures, partially assembled display fireworks, and finished display fireworks shall be removed from fireworks process buildings at the conclusion of a day's operations and placed in approved magazines.

[T.D. ATF-293, 55 FR 3722, Feb. 5, 1990, as amended by T.D. ATF-400, 63 FR 45004, Aug. 24, 1998]

**§ 555.222 Table of distances between fireworks process buildings and between fireworks process and fireworks nonprocess buildings.**

Net weight of fireworks <sup>1</sup> (pounds)	Display fireworks <sup>2</sup> (feet)	Consumer fireworks <sup>3</sup> (feet)
0-100 .....	57 .....	37
101-200 .....	69 .....	37
201-300 .....	77 .....	37
301-400 .....	85 .....	37
401-500 .....	91 .....	37
Above 500 .....	Not permitted <sup>4 5</sup> .....	Not permitted <sup>4 5</sup>

<sup>1</sup>Net weight is the weight of all pyrotechnic compositions, and explosive materials and fuse only.

<sup>2</sup>The distances in this column apply only with natural or artificial barricades. If such barricades are not used, the distances must be doubled.