**Section 200.APPENDIX A American Table of Distances for Storage of Explosive Materials**

|  |  |
| --- | --- |
|  | DISTANCES IN FEET |
| QUANTITY OF EXPLOSIVE MATERIALS | Inhabited Buildings | Public HighwaysClass A to D | Passenger Railways − Public Highways with Traffic Volume of more than 3,000 Vehicles/Day | Separation of Magazines |
| Pounds Over | Pounds Not Over | Barricaded | Unbarricaded | Barricaded | Unbarricaded | Barricaded | Unbarricaded | Barricaded | Unbarricaded |
| .0015102030 | 510203040 | 7090110125140 | 140180220250280 | 3035455055 | 607090100110 | 51648193103 | 102128162186206 | 68101112 | 1216202224 |
| 405075100125 | 5075100125150 | 150170190200215 | 300340380400430 | 6070758085 | 120140150160170 | 110127139150159 | 220254278300318 | 1415161819 | 2830323638 |
| 150200250300400 | 200250300400500 | 235255270295320 | 470510540590640 | 95105110120130 | 190210220240260 | 175189201221238 | 350378402442476 | 2123242729 | 4246485458 |
| 500600700800900 | 6007008009001,000 | 340355375390400 | 680710750780800 | 135145150155160 | 270290300310320 | 253266278289300 | 506532556578600 | 3132333536 | 6264667072 |
| 1,0001,2001,4001,6001,800 | 1,2001,4001,6001,8002,000 | 425450470490505 | 8509009409801,010 | 165170175180185 | 330340350360370 | 318336351366378 | 636672702732756 | 3941434445 | 7882868890 |
| 2,0002,5003,0004,0005,000 | 2,5003,0004,0005,0006,000 | 545580635685730 | 1,0901,1601,2701,3701,460 | 190195210225235 | 380390420450470 | 408432474513546 | 8168649481,0261,092 | 4952586165 | 98104116122130 |
| 6,0007,0008,0009,00010,000 | 7,0008,0009,00010,00012,000 | 770800835865875 | 1,5401,6001,6701,7301,750 | 245250255260270 | 490500510520540 | 573600624645687 | 1,1461,2001,2481,2901,374 | 6872757882 | 136144150156164 |
| 12,00014,00016,00018,00020,000 | 14,00016,00018,00020,00025,000 | 8859009409751,055 | 1,7701,8001,8801,9502,000 | 275280285290315 | 550560570580630 | 723756786813876 | 1,4461,5121,5721,6261,752 | 87909498105 | 174180188196210 |
| 25,00030,00035,00040,00045,000 | 30,00035,00040,00045,00050,000 | 1,1301,2051,2751,3401,400 | 2,0002,0002,0002,0002,000 | 340360380400420 | 680720760800840 | 9339811,0261,0681,104 | 1,8661,9622,0002,0002,000 | 112119124129135 | 224238248258270 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 50,00055,00060,00065,00070,000 | 55,00060,00065,00070,00075,000 | 1,4601,5151,5651,6101,655 | 2,0002,0002,0002,0002,000 | 440455470485500 | 8809109409701,000 | 1,1401,1731,2061,2361,263 | 2,0002,0002,0002,0002,000 | 140145150155160 | 280290300310320 |
| 75,00080,00085,00090,00095,000 | 80,00085,00090,00095,000100,000 | 1,6951,7301,7601,7901,815 | 2,0002,0002,0002,0002,000 | 510520530540545 | 1,0201,0401,0601,0801,090 | 1,2931,3171,3441,3681,392 | 2,0002,0002,0002,0002,000 | 165170175180185 | 330340350360370 |
| 100,000110,000120,000130,000140,000 | 110,000120,000130,000140,000150,000 | 1,8351,8551,8751,8901,900 | 2,0002,0002,0002,0002,000 | 550555560565570 | 1,1001,1101,1201,1301,140 | 1,4371,4791,5211,5571,593 | 2,0002,0002,0002,0002,000 | 195205215225235 | 390410430450470 |
| 150,000160,000170,000180,000190,000 | 160,000170,000180,000190,000200,000 | 1,9351,9651,9902,0102,030 | 2,0002,0002,0002,0102,030 | 580590600605610 | 1,1601,1801,2001,2101,220 | 1,6291,6621,6951,7251,755 | 2,0002,0002,0002,0002,000 | 245255265275285 | 490510530550570 |
| 200,000210,000230,000250,000275,000 | 210,000230,000250,000275,000300,000 | 2,0552,1002,1552,2152,275 | 2,0552,1002,1552,2152,275 | 620635650670690 | 1,2401,2701,3001,3401,380 | 1,7821,8361,8901,9502,000 | 2,0002,0002,0002,0002,000 | 295315335360385 | 590630670720770 |

EXPLANATORY NOTES ESSENTIAL TO THE APPLICATION

OF THE AMERICAN TABLE OF DISTANCES FOR

STORAGE OF EXPLOSIVE MATERIALS

 NOTE 1 – "Explosive materials" means explosives, blasting agents and detonators.

 NOTE 2 – "Explosives" means any chemical compound, mixture or device, the primary or common purpose of which is to function by explosion. A list of explosives determined to be within the coverage of 18 U.S.C. Chapter 40, Importation, Manufacturer, Distribution and Storage of Explosive Materials is issued at least annually by the Director of the Bureau of Alcohol, Tobacco, Firearms and Explosives of the U.S. Department of Justice. For quantity and distance purposes, detonating cord of 50 grains per foot should be calculated as equivalent to 8 lbs. of high explosives per 1,000 feet. Heavier or lighter core loads should be rated proportionately.

 NOTE 3 – "Blasting agents" means any material or mixture consisting of fuel and oxidizer, intended for blasting, not otherwise defined as an explosive. However, the finished product, as mixed for use or shipment, cannot be detonated by means of a No. 8 test blasting cap when unconfined.

 NOTE 4 – "Detonator" means any device containing any initiating or primary explosive that is used for initiating detonation. A detonator may not contain more than 10 grams of total explosives by weight, excluding ignition or delay charges. The term includes, but is not limited to, electric blasting caps of instantaneous and delay types, blasting caps for use with safety fuses, detonating cord delay connectors, and nonelectric instantaneous and delay blasting caps that use detonating cord, shock tube, or any other replacement for electric leg wires. All types of detonators in strengths through No. 8 cap should be rated at 1⅔ lbs. of explosives per 1,000 caps. For strengths higher than No. 8 cap, consult the manufacturer.

 NOTE 5 – "Magazine" means any building, structure or container, other than an explosives manufacturing building, approved for the storage of explosive materials.

 NOTE 6 – "Natural Barricade" means natural features of the ground, such as hills, or timber of sufficient density that the surrounding exposures that require protection cannot be seen from the magazine when the trees are bare of leaves.

 NOTE 7 – "Artificial Barricade" means an artificial mound or revetted wall of earth of a minimum thickness of 3 feet at the top of the mound or wall, or a mound or revetted wall of other material offering equivalent protection. Artificial barricades that are vegetated shall be of sufficient slope to enable mowing.

 NOTE 8 – "Barricaded" means the effective screening of a building containing explosive materials from the magazine or other building, railway or highway by a natural or an artificial barrier. A straight line from the top of any sidewall of the building containing explosive materials to the eave line of any magazine or other building or to a point 12 feet above the center of a railway or highway shall pass through the barrier.

 NOTE 9 – "Inhabited Building" means a building regularly occupied in whole or part as a habitation for human beings, or any church, schoolhouse, railroad station, store or other structure where people are accustomed to assemble, except any building or structure occupied in connection with the manufacture, transportation, storage or use of explosive materials.

 NOTE 10 – "Railway" means any steam, electric or other railroad or railway that carries passengers for hire.

 NOTE 11 – "Highway" means any public street, public alley or public road.

 NOTE 12 – When two or more storage magazines are located on the same property, each magazine must comply with the minimum distances specified from inhabited buildings, railways and highways and, in addition, they should be separated from each other by not less than the distances shown for "Separation of Magazines," except that the quantity of explosive materials contained in detonator magazines shall govern in regard to the spacing of those detonator magazines from magazines containing other explosive materials. If any two or more magazines are separated from each other by less than the specified "Separation of Magazines" distances, then those magazines, as a group, must be considered as one magazine, and the total quantity of explosive materials stored in such group must be treated as if stored in a single magazine located on the site of any magazine of the group, and must comply with the minimum of distances specified from other magazines, inhabited buildings, railways and highways.

 NOTE 13 – Storage in excess of 300,000 lbs. of explosive materials in one magazine is generally not required for commercial enterprises.

 NOTE 14 – This Table applies only to the manufacture and permanent storage of commercial explosive materials. It is not applicable to transportation of explosives or any handling or temporary storage necessary or incident to the transportation, handling or storage. It is not intended to apply to bombs, projectiles or other heavily encased explosives.

NOTE 15 – When a manufacturing building on an explosive materials plant site is designed to contain explosive materials, the building shall be located away from inhabited buildings, public highways and passenger railways in accordance with the American Table of Distances based on the maximum quantity of explosive materials permitted to be in the building at one time.

(NOTE: The American Table of Distances for Storage of Explosive Materials and accompanying Explanatory Notes are copyrighted materials reproduced with the permission of the Institute of Makers of Explosives. The notes contained in this Appendix are meant to supplement, and not supersede, the regulations contained in this Part. When wording differs between the regulations and these explanatory notes, the regulations shall govern for enforcement purposes.)

(Source: Amended at 48 Ill. Reg. 9600, effective June 24, 2024)