**Section 200.500 Construction of Magazines**

a) *The Director may authorize alternate construction for explosives storage magazines when it is shown that the alternate magazine construction is substantially equivalent to the standards of safety and security contained in this subpart. Any person intending to use alternate magazine construction shall submit a letter of application to the Director, specifically describing the proposed magazine. Explosive materials may not be stored in alternate magazines before the applicant has been notified that the application has been approved.* (Section 5013(b) of the Act)

b) Magazines constructed according to the following minimum specifications are approved as bullet-resistant as defined by Section 200.11 (all steel and wood dimensions are actual thickness; all concrete block and brick dimensions are nominal thicknesses):

1) Exterior of steel:

A) ⅝ inch steel with an interior lining of any type of non-sparking material.

B) ½ inch steel with an interior lining of not less than ⅜ inch plywood.

C) ⅜ inch steel with an interior lining of:

i) 2 inches of hardwood, or

ii) 3 inches of softwood, or

iii) 2¼ inches of plywood.

D) ¼ inch steel with an interior lining of:

i) 2 inches of hardwood, or

ii) 5 inches of softwood, or

iii) 5¼ inches of plywood, or

iv) 1½ inches of plywood with an intermediate layer of 2 inches of hardwood.

E) 3/16 inch steel with an interior lining of:

i) 4 inches of hardwood, or

ii) 7 inches of softwood, or

iii) 6¾ inches of plywood, or

iv) ¾ inches of plywood with an intermediate layer of 3 inches of hardwood.

F) ⅛- inch of steel with an interior lining of:

i) 5 inches of hardwood, or

ii) 9 inches of softwood, or

iii) ¾ inches of plywood with an intermediate layer of 4 inches of hardwood, or

iv) ¾ inches of plywood with a first intermediate layer of ¾ inch plywood and a second intermediate layer of 3 ⅝ inches of well-tamped dry sand or sand and cement mixture.

2) Exterior of any type of fire-resistant material that is structurally sound with:

A) An interior lining of ½ inch plywood placed securely against an intermediate layer of:

i) 4 inches solid concrete block, or

ii) 4 inches solid brick, or

iii) 4 inches solid concrete.

B) An interior lining of ¾ inches of plywood and a first intermediate layer of ¾- inch plywood, a second intermediate layer of 3⅝ inch well-tamped dry sand or sand and cement mixture, a third intermediate layer of ¾ inch plywood, and a four intermediate layer of 2 inches of hardwood or 14-gauge steel.

C) An intermediate 6 inch space filled with well-tamped dry sand or well-tamped sand and cement mixture.

3) Masonry construction of:

A) Standard 8 inch concrete block with voids filled with well-tamped dry sand or well-tamped sand and cement mixture, or

B) Standard 8 inch solid brick, or

C) 8 inch thick solid concrete.

c) The ground around a magazine shall be graded in such a manner that water will not drain into the magazine.

d) Battery-activated safety lights or battery-activated safety lanterns may be used in explosives storage magazines. Upon request, electric lighting systems for magazines will be authorized by the Department if they meet the standards prescribed by the National Electrical Code, for the conditions present in the magazine at any time. All electrical switches must be located outside of the magazine and also meet the standards prescribed by the National Electrical Code.

e) Type 1, 2, 3 or 4 magazines constructed with masonry walls or with any ferrous metal must have such interior surfaces covered with a non-sparking lattice, paint, mastic, or equivalent lining to prevent direct contact with stored explosive materials.

f) In a Type 5 magazine, ferrous metal may be exposed on the interior of the magazine provided it cannot rupture the packages of explosive materials.

(Source: Amended at 37 Ill. Reg. 14090, effective August 26, 2013)