



DEPARTMENT OF DEFENSE EXPLOSIVES SAFETY BOARD

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17 OCT 2022

DDESB-PE

MEMORANDUM FOR COMMANDING OFFICER, NAVAL ORDNANCE SAFETY AND SECURITY ACTIVITY (ATTENTION: CODE N54)

SUBJECT: Approval of 7-Bar Structural Strength Designation for Navy Standard Type D Earth-Covered Box Magazine Constructed to Naval Facilities Engineering Systems Command Drawing Numbers 14084162 through 14084201

- References:
- (a) NOSSA ltr 8020 Ser N41/1208 of 9 June 2022, Subject: Expedited Request for Approval of Revised Standard Drawings for Navy Type Box C, Navy Type Box D and Navy Modular Storage Magazines [Criteria/Non-WEBSAR/NN-002]
 - (b) Naval Facilities Engineering Systems Command Drawing Numbers 14084162 through 14084201, Type D Box Magazine, dated 14 September 2022
 - (c) Defense Explosives Safety Regulation 6055.09, Edition 1, 13 January 2019
 - (d) Naval Facilities Engineering Command Drawing Numbers 18232899 through 18232936 (without platform) and 18232939 through 18232978 (with platform), Type D Box Magazine, revision 1, dated April 2017 and signed 10 May 2017
 - (e) NAVFAC Atlantic DC-42 Memorandum, 27 September 2022, Subject: Type D Box Magazine Standard Drawings Interim Updates
 - (f) DDESB Technical Paper 15, "Approved Protective Construction," Revision 4, 26 July 2020

As requested by reference (a), we have reviewed the reference (b) drawings for compliance with Department of Defense explosives safety criteria found in reference (c). Based on our evaluation, the design contained in reference (b) is approved as a 7-Bar earth-covered magazine (ECM). This new design supersedes the previous reference (d) Type D Box magazine design.

The new drawings of reference (b) include a revised blast door design that incorporates Grade 50 structural steel and hollow structural section (HSS) stiffeners. Otherwise, these design drawings do not deviate substantially from the design of reference (d). A detailed list of changes between references (b) and (d) is provided in reference (e).

The design of reference (b) will be added to Table AP1-1 of reference (f) as approved for new construction, and reference (d) will be relocated from Table AP1-1 to Table AP1-2 and considered not approved for new construction.

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