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NAVAL ORDNANCE SAFETY & SECURITY ACTIVITY
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8020
Ser N41/569
28 Apr 25

From: Commanding Officer, Naval Ordnance Safety and Security Activity
To: Commander, Naval Facilities Engineering and Expeditionary Warfare Center

Subj: FINAL SAFETY APPROVAL OF STANDARD DRAWINGS FOR MODULAR
STORAGE MAGAZINE VERSION 2, NAVY EARTH-COVERED MAGAZINE
[CRITERIA/NON-WEBSAR/RR-010]

Encl: (1) DDESB memo DDESB-PE of 17 Apr 2025 [RR-010], Navy Modular Storage
Magazine Version 2, Navy Earth-Covered Magazine

1. Transmitting final Department of Defense Explosives Safety Board (DDESB) approval. Enclosure (1) provides final approval of 7-bar structural strength designation for the Navy Modular Storage Magazine Version 2, constructed to Naval Facilities Engineering Systems Command Drawing Numbers 14148449 through 14148533.
2. The allowable Hazard Division (HD) 1.1 explosive limit for this design is 500,000 pounds net explosive weight (NEW).
3. For questions relating to this request contact Mr. Ander Taylor, NOSSA Facilities Planning and Certification Branch, at nossa_faccert@us.navy.mil.

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Controlled by: NOSSA (N41)
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DEPARTMENT OF DEFENSE EXPLOSIVES SAFETY BOARD

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17 APR 2025

DDESB-PE

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

SUBJECT: Approval of 7-Bar Structural Strength Designation for the Navy Modular Storage Magazine Version 2, Constructed to Naval Facilities Engineering Systems Command Drawing Numbers 14148449 through 14148533

- References:
- (a) NOSSA ltr 8020 Ser N41/450 of 7 April 2025, Subject: Expedited Request for Approval of Standard Drawings for Modular Storage Magazine Version 2, Navy Earth-Covered Magazine [Criteria/Non-WEBSAR/RR-010]
 - (b) Naval Facilities Engineering Systems Command Drawing Numbers 14148449 through 14148533, Modular Storage Magazine Standard Drawings, NAVFAC Atlantic, 13 March 2025
 - (c) Defense Explosives Safety Regulation 6055.09, Edition 1, Change 1, 23 February 2024
 - (d) Naval Facilities Engineering Systems Command Drawing Numbers 14115969 through 14116021, Modular Storage Magazine Standard Drawings, NAVFAC Atlantic, 14 September 2022
 - (e) 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). The allowable Hazard Division (HD) 1.1 explosive limit for this design is 500,000 pounds net explosive weight (NEW). This new design supersedes the previous Navy Modular Storage Magazine design (reference (d)).

The clear interior dimensions of the ECM are 81'-6" length by 25'-0" width by 14'-8" height. The side walls, rear wall and roof are constructed from precast concrete panels, while the headwall and wingwall are cast-in-place reinforced concrete. Version 2 of the design includes redesigned headwall components (i.e., pilasters and header beam), a new blast door system with enhanced physical security features, and a modified connection between the roof and side wall panels. As in the previous reference (d) design, the new design also includes an optional mechanical room for environmental controls if justified through mission requirements.

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

Point of contact is Mr. Ryan Bowers at Commercial: (571) 372-6706; DSN: 372-6706; or E-mail: ryan.w.bowers.civ@army.mil.



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Executive Director

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