



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE SAFETY CENTER

17 Apr 02

MEMORANDUM FOR ALMAJCOM/SEW
USCENTAF/SEW

FROM: HQ AFSC/SEW
9700 G Avenue, SE
Kirtland AFB NM 87117-5670

SUBJECT: DDESB Approval of 7-Bar Structural Strength Designation for Modular Storage Magazines (MSM) Constructed to Modified U.S. Army Corps of Engineers Drawing 421-80-06

- References:
- (a) DDESB-KT Ltr, 2 Apr 02, Subj: Removal of 7-Bar Designation from the AF Modular Storage Magazine and Actions Being Taken to Restore the 7-Bar Designation to Both Existing and New MSM Construction
 - (b) HQ AFSC/SEW Ltr, 12 Apr 02, Subj: Request for Approval of U.S. Army Corps of Engineers Drawing 421-80-06 Modification Package to Obtain 7-Bar Designation
 - (c) DDESB-KT Ltr, 17 Apr 02, Subj: Approval of 7-Bar Structural Strength Designation for Modular Storage Magazines (MSM) Constructed to Modified U.S. Army Corps of Engineers Drawing 421-80-06
 - (d) AFSC/SE Message, 12 Mar 02, Subj: Design Problem with the Modular Storage Magazine

Reference (a) removed the 7-Bar structural strength designation from modular storage magazines (MSM) constructed to U.S. Army Corps of Engineers (COE) Drawing 421-80-06 and to earlier Air Force design drawings, due to door design problems that were discovered after the fact. AFSC/SEW, in reference (b), requested DoD Explosives Safety Board (DDESB) approval of a 7-Bar structural strength designation for new MSM constructed IAW a modification drawing package to COE Drawing 421-80-06. This modification drawing package replaces specific drawing sheets (S-9 through S-13) of COE Drawing 421-80-06, to restore the correct doors and frame design into the MSM design.

Reference (c) provides DDESB approval of a 7-Bar structural strength designation for the MSM modification drawing package. The following pertain to this approval:

a. The 7-Bar MSM will be constructed IAW COE Drawing 421-80-06, dated 1 October 1999, Sheets S-1 through S-8, Sheets S-14 through S-18, E-1, E-2, and COE sketches (Air Force Modular Storage Magazine, Box-Type, Dated March 2002) S-9 through S-13. The COE sketches (attached) consist of the following (Note: The 6.75 refers to the approximate door thickness in inches.):

Sheet S-9, 6.75 Door Frame Assembly
Sheet S-10, 6.75 Left Door Assembly
Sheet S-11, 6.75 Right Door Assembly
Sheet S-12, 6.75 Right Door Assembly Details
Sheet S-13, 6.75 Door Details

b. New MSM construction drawings developed using the MSM modification drawing package must include the following statement in the notes: “This design is based on modified COE Drawing 421-80-06, dated 1 October 1999, Sheets S-1 through S-8, Sheets S-14 through S-18, E-1, E-2, and COE sketches (Air Force Modular Storage Magazine, Box-Type, Dated March 2002) S-9 through S-13, provided to DDESB by HQ AFSC/SEW memorandum, 12 April 2002, Subject: Request for Approval of U.S. Army Corps of Engineers Drawing 421-80-06 Modification Package to Obtain 7-Bar Designation.”

c. Explosives Site Plans for new MSM construction using the MSM modification drawing package must include the following statement: “MSM design is based on modified COE Drawing 421-80-06, dated 1 October 1999, Sheets S-1 through S-8, Sheets S-14 through S-18, E-1, E-2, and COE sketches (Air Force Modular Storage Magazine, Box-Type, Dated March 2002) S-9 through S-13, provided to DDESB by HQ AFSC/SEW memorandum, 12 April 2002, Subject: Request for Approval of U.S. Army Corps of Engineers Drawing 421-80-06 Modification Package to Obtain 7-Bar Designation.”

Use of this MSM modification drawing package for new construction of 7-Bar MSM will only be valid until a new MSM drawing set with its own unique drawing number is developed by AFSC, and approved by the DDESB. Estimated completion date for this new drawing set is 31 Jul 02. Once approved, this new MSM drawing set will be the only one permitted for new construction of 7-Bar MSM.

This design reflects the only MSM that is granted a 7-Bar structural strength designation. All previously-constructed MSM will continue to be treated as Undefined MSM, as outlined in reference (d), until such time as they have been retrofitted. AFSC/SEW is developing, and will submit to DDESB for approval, a retrofit design package to permit certain MSM to be upgraded to a 7-Bar designation. Estimated completion date for this retrofit package is 3 Jun 02.

DDESB will include the approved MSM modification drawing package design in the next update to DDESB Technical Paper (TP) 15.

If you have any questions, please contact Ms Lea Ann Cotton at DSN 246-1395, commercial (505)846-1395, or e-mail LeaAnn.Cotton@kafb.saia.af.mil.

A handwritten signature in black ink, appearing to read "Daniel T. Tompkins". The signature is fluid and cursive, with a large initial "D" and a stylized "T" and "P".

DANIEL T. TOMPKINS, Colonel, USAF
Chief, Weapons, Space, and Nuclear
Safety Division

Attachment:

U.S. Army COE Sketches, Air Force Modular Storage Magazine, Box-Type, Sheets S-9 through S-13, Dated March 2002