

DDESB-KT (SMCAC/ESP/12 Jan 90) 3rd End Dr. Canada/tm/329-0624 Replacement Doors for Corbetta-type Magazines SUBJECT:

Department of Defense Explosives Safety Board, 2461 Eisenhower Avenue, Alexandria, VA 22331-0600 1 2 JUL 1990

FOR DIRECTOR, U. S. ARMY AMMUNITION CENTER AND SCHOOL, SMCAC/ESP (LYN LITTLE), SAVANNA, IL 61074-9639

- The subject explosives safety construction plan to upgrade Corbetta magazine doors at Holston Army Ammunition Plant (HSAAP) and Volunteer Army Ammunition Plant (VAAP) to increase storage capacities to 500,000 pounds has been reviewed with respect to explosives safety. Based upon the information furnished, the construction plan to upgrade the subject doors is approved. Also, storage of up to 500,000 pounds C/D 1.1. explosives material in the subject Corbetta magazines is approved provided the magazines are separated by at least 400 feet and oriented for side-to-side or rear-to-front exposures between the donor and acceptor magazines.
- Front-to-front exposures between unbarricaded donor and acceptor magazines require a scaled distance of Kll, so the maximum weight in Magazines 150 and 151 and any other magazines oriented in a similar manner must be considerably less than the proposed 250,000 pounds. (For a separation distance of 400 feet, the maximum storage weight for a front-to-front exposure is about 48,000 pounds.)

Please supply this office with any upgraded site plans that result from this approval.

> ACK MATHEWS Colonel, USAF

Chairman

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Dr. Canada 01471

## Conbetta Mags.

OFFICE OF THE CHAIRMAN, DDESB Jun 26-90  LOG #: 90-425 (1m) Jun 26-90  SUSPENSE DATE: 27 June 90  CORRESPONDENCE DATE: 12 June 90	KA KN KAF KC
DATE RECEIVED: 15 June 90	KT AC
TO INITIALS DATE  2 IK - CHAIRMAN TDY  IKs Mrs. Bottjer  KXA- Mrs. Barker  KXS- Mr. Warren	SYMBOL LEGEND  A - Action  C - Concurrence  PR- Prepare Reply  CO- Comment & Return  I - Information  F - File  R - Return to Sende  S - Signature
Z KA - ARMY REP  Col Viall  KN - NAVY REP  Capt Glover  KAF- AF REP  Col Bryant  KO - DIRECTOR, OPERATIONS DIV  - Mr. Drake  KOl- Mr. Clark	PM: - Post Master Call  Secretary/Action Offic Checklist  SEC  Proper Letterhead (if applicable)  Lermat Spelling
KO2- Mr. Howell  KO3- Mr. Cruz  KO4- Mr. Cates  KO5- Mr. Newbern  KGs- Ms. Taylor  KT - DIRECTOR, TECH PROGRAMS DIA  - Mr. Sawyer  KT1- Dr. Ward  KT2- Mr. Moran	Incls Attached (if applicable) Levelopes attached Coord Block Noted  Authory Crosses  Mathrice Crosses  Mathridge  Mat
KT3- Dr. Canada Recl 27 June 90 KT4- Dr. Maurits KTs- Ms. Mauck  REMARKS: (REV 28 Sep 89)	HOUSTON AAR AND VOUNTER AAR
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DDESB-KT SMCAC-ESP (385-10d) 3rd End

SUBJECT: Replacement Doors for Corbetta-type Magazines

FOR: Director

U.S. Army Technical Center for Explosives Safety

ATTN: SMCAC-ESP, Savanna, IL 61074-9639

The subject explosives safety construction plan to upgrade Corbetta magazine doors at Holston Army Ammunition Plant (HSAAP) and Volunteer Army Ammunition Plant (VAAP) to increase storage capacities to 500,000 pounds has been reviewed with respect to explosives safety. Based upon the information furnished, the construction plan to upgrade the subject doors is approved. Also, storage of up to 500,000 pounds C/D 1.1 explosives material in the subject Corbetta magazines is approved provided the magazines are separated by at least 400 feet and oriented for side-to-side or rear-to-front exposures between the donor and acceptor magazines.

Front-to-front exposures between unbarricaded donor and acceptor magazines require a scaled distance of K11, so the maximum weight in Magazines 150 and 151 and any other magazines oriented in a similar manner must be considerably less than the proposed 250,000 pounds. (For a separation distance of 400 feet the maximum storage weight for a front-to-front exposure is about 48,000 pounds.)

Please supply this office with any upgraded site plans that result from this approval.

JACK MATHEWS Colonel, USAF Chairman SMCAC-ESP (AMSMC-SFP/12 Jan 90) (385-10d) 2d End SUBJECT: Replacement Doors for Corbetta-type Magazines

1 2 JUN 1990 U.S. Army Defense Ammunition Center and School, Savanna IL 61074-9639

FOR Chairman, Department of Defense Explosives Safety Board, ATTN: DDESB-KO, 2461 Eisenhower Avenue, Alexandria, VA 22331-0600

- 1. Reference FONECON between Mr. James Drake, your office, and Mr. Lyn Little, this office, 17 April 1990, SAB.
- 2. Corbetta-type magazines in use at Holston Army Ammunition Plant (HSAAP) and Volunteer Army Ammunition Plant (VAAP) are considered nonstandard earth-covered magazines because the doors are inadequate to prevent explosion communication. Storage conditions at HSAAP and VAAP require these magazines be able to store 500,000 pounds. To upgrade these magazines, a design for modification of existing doors and two new designs have been prepared by Corps of Engineers (CE), Huntsville Division. An additional new design has been prepared by the architectural-engineering firm of Foster Wheeler, U.S.A. Corporation, under contract with the U.S. Army Production Base Modernization Activity.
- 3. During reference FONECON, it was recommended that CE, Huntsville Division, review the design by Foster Wheeler, U.S.A Corporation. This recommendation was noted in enclosure 3. In their reply, U.S. Army Armament, Munitions and Chemical Command (AMCCOM) requested that Department of Defense Explosives Safety Board (DDESB) review the enclosed designs and provide comments; i.e., which design is preferred.
- 4. We have reviewed these designs with respect to explosives safety and consider them adequate and approval is recommended.
- Point of contact (POC) is Mr. Lyn Little, SMCAC-ESP, DSN 585-8765.

FOR THE DIRECTOR:

3 Encls 1-2. nc Added 1 encl 3. as

JOHN A **J**OHNSON

Chief Development and Production

ives Safety Division

CF (wo/encls):

Commander, U.S. Army Materiel Command, ATTN: AMCAM-LG, 5001 Eisenhower Avenue, Alexandria, VA 22333-0001

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