



DEPARTMENT OF THE ARMY  
US ARMY DEFENSE AMMUNITION CENTER  
1 C TREE ROAD  
MCALESTER OK 74501-9053

REPLY TO  
ATTENTION OF

SJMAC-ESM

18 AUG 2004

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

SUBJECT: Amendment 4 to the Conventional Explosives Safety Submission for Ordnance and  
Explosives (OE) Removal Action for the Eastern Bypass, of Fort McClellan, Alabama.

1. References:

a. Correction 2 to the Conventional Explosive Safety Submission, Ordnance and Explosives  
(OE) Removal Action for the Eastern Bypass of Fort McClellan, Alabama, 19 March 2004

b. Memorandum, Department of Defense Explosives Safety Board, DDESB-KO, 26 Jul 2004,  
subject: Correction 2 to the Convention Explosives Safety Submission (ESS) for Ordnance and  
Explosives (OE) Removal Action for the Eastern Bypass, of Fort McClellan, Alabama.

c. Memorandum, Department of Defense Explosives Safety Board, DDESB-KO, 27 Nov  
2001, subject: Explosives Safety Submission (ESS) for Ordnance Removal Action at the Eastern  
Bypass at its 325<sup>th</sup> Meeting, 11 December 02, Fort McClellan, AL

d. DOD 6055.9-STD, (rewrite), Ammunition and Explosives Safety Standards, approved by  
DDESB

2. Reference 1.a enclosed Correction 2 to the Explosives Safety Submission (ESS) and this  
memorandum are submitted together as Amendment 4 to the original ESS, reference 1.c., for  
your review IAW reference 1.d. Reference 1.b requires an amendment to the original ESS for  
the changes proposed. Therefore, this memorandum and reference 1.a together will serve as  
Amendment 4 to reference 1.c. We have reviewed these documents against Army and DOD  
explosives safety criteria and find them acceptable.

3. This amendment clarifies why a removal action was not performed on part of the area covered  
by the Eastern Bypass ESS. Portions of this area are contaminated with construction debris that  
makes magnetic detection problematic. Removal of the construction debris would require  
roadway destruction. Therefore, construction support will be provided at the time of future road  
construction. The approved ESS already provides for construction support during highway  
construction in areas where the approved removal-to-depth was performed.

a. Change justification: A removal to depth within the OE Area 2, for 42 full or partial grids,  
was not performed because it would require roadway destruction and significant excavation to  
eliminate the vast quantity of construction debris masking possible ordnance underneath. The  
roadway is currently used and most likely will continue to be used until construction of the  
Eastern Bypass.

Revised  
30 April 2004  
LMH

SJMAC-ESM

SUBJECT: Amendment 4 to the Conventional Explosives Safety Submission for Ordnance and Explosives (OE) Removal Action for the Eastern Bypass, of Fort McClellan, Alabama.

b. Risk posed by leaving OE in place: Based on an examination of aerial photography and information in the Archives Search Report, no UXO is expected to be found within the debris. The Archive Search Report indicates the two ranges, a 60mm mortar range and a Tank range were closed between 1958 and 1967. From aerial photography and discussions with on-site personnel, it appears that road construction began between 1961 and 1969. The debris area does not appear on photographs in 1969, but is visible in 1982. These photographs indicate that the debris was placed after closure of the ranges. Also, in the areas of the construction debris originally found and excavated, no OE was present within the construction debris. For these reasons, it is believed that any OE existing within the construction debris grids would be located below the debris in native soil. Because anywhere from 4 to 20 feet of roadway and debris would have to be removed to expose native soil, it is believed that the current risk to personnel is minimal.

c. Construction Support methodology proposed: The Army will have UXO Technicians present at the time of construction in OE Area 2 to inspect for ordnance after each foot of overburden removal. Each one foot lift of debris will be spread in an adjacent area and inspected for OE by UXO technicians. Once the debris pile is cleared, it can be removed and the next lift processed. This process will continue until the bottom of the debris pile is reached. Once native (undisturbed) soil is encountered, the Army will perform a subsurface removal to depth. The removal to depth may be performed either by mag and flag techniques or by geophysical techniques. The method to be used would depend on the pace of Alabama Department of Transportation, ALDOT, construction activities and the effectiveness of the method for the particular area. If any UXO is located within the debris, the construction will stop and alternate methods will have to be deployed.

d. In the event that any UXO is recovered then construction will be halted while another ESS amendment is submitted. The Munition with the Greatest Fragmentation, MGFD, will remain the same as in the original ESS, the 37mm MK II.

4. The Army is waiting for the construction to begin because the road is currently being used. ALDOT will be removing the road during the construction of the bypass but until that time the road is needed. The probability of encountering Munitions and Explosives of Concern, MEC, is low because the road was built after the range was closed.

5. Request a DDESB response by 20 September 2004.

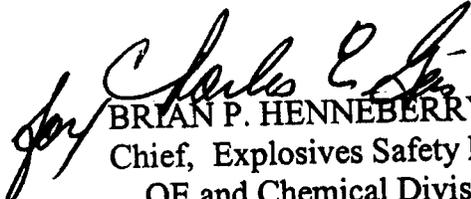
SJMAC-ESM

SUBJECT: Amendment 4 to the Conventional Explosives Safety Submission for Ordnance and Explosives (OE) Removal Action for the Eastern Bypass, of Fort McClellan, Alabama.

6. Point of contact (POC) is Karl Raue, SJMAC-ESM, DSN 956-8122, commercial (918) 420-8122, fax 8743, Karl.Raue@dac.army.mil.

FOR THE DIRECTOR

Encl

  
BRIAN P. HENNEBERRY  
Chief, Explosives Safety Knowledge,  
OE and Chemical Division

CF (w/encl):

Office of the Director of Army Safety Office (DACS-SF), 2211 South Clark Street, Room 980,  
Arlington VA 22202

Office of the Assistant Secretary of the Army for Installations & Environment), (Asst. for  
Munitions) (DESOH/Mr. King), 110 Army Pentagon, Washington DC 20310-0110

U.S. Army Corps of Engineers (CESO/Ms Roberts), 441 G Street, NW, Washington DC  
20314-1000

BRAC Environmental Coordinator, ATTN: DAIM-BD-H-MC, Mr. Ronald M. Levy, U.S.  
Army Garrison, Fort McClellan AL 36205-5000

Hampton BRAC Field Office, ATTN: DAIM-BO-H, 3a Benard Street, Bldg 105 A,  
Fort Monroe VA 23651-5000.

U.S. Army Engineering and Support Center Huntsville, ATTN: CEHNC-OE,  
4820 University Square, P.O. Box 1600, Huntsville AL 35816.



DEPARTMENT OF DEFENSE EXPLOSIVES SAFETY BOARD  
2461 EISENHOWER AVENUE  
ALEXANDRIA, VIRGINIA 22331-0600

26 JUL 2004

DDESB-KO

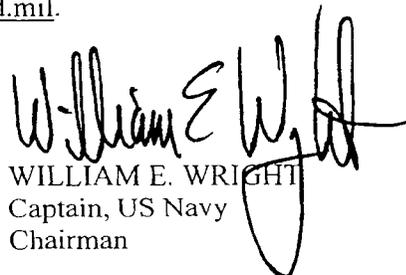
MEMORANDUM FOR DIRECTOR, DEFENSE AMMUNITION CENTER  
ATTENTION: SJMAC-ESM

SUBJECT: Correction 2 to the Conventional Explosives Safety Submission (ESS) for Ordnance and Explosives (OE) Removal Action for the Eastern Bypass, of Fort McClellan, Alabama.

- References: (a) DAC SJMAC-ESM Memorandum, 4 May 2004, Subject as above
- (b) DDESB-KO Memorandum, 27 November 2001, Subject: Explosives Safety Submission (ESS) for Ordnance Removal Action at the Eastern Bypass, Fort McClellan, AL
- (c) DDESB-KO Memorandum, 24 October 2002, Subject: Amendment 1 to the Explosives Safety Submission (ESS) for Ordnance and Explosives Removal Action for the Eastern Bypass, Fort McClellan, AL

The DoD Explosives Safety Board (DDESB) Secretariat has reviewed the change to the approved ESS for the Eastern Bypass area at Fort McClellan, AL, forwarded by reference (a), against the requirements of references (b) and (c). This change was provided to us as a correction to the approved ESS, rather than as an amendment. Based on our review, we have concluded that an amendment to the ESS, rather than a correction, is necessary for the proposed change to the approved removal action. Request you submit an amendment to the ESS justifying the change, the risk posed to anyone potentially exposed to the hazards of OE left in place and the mitigating measures to control or eliminate that hazard prior to and during construction of the Eastern Bypass.

The point of contact for this action is Ms. Lydia E. Sanchez, (703) 325-1373, DSN 221-1373, E-mail address [Lydia.Sanchez@ddesb.osd.mil](mailto:Lydia.Sanchez@ddesb.osd.mil).

  
WILLIAM E. WRIGHT  
Captain, US Navy  
Chairman

**Correction 2**  
**To the Approved Conventional Explosives Safety Submission**  
**Ordnance and Explosives (OE) Removal Action, Eastern Bypass, Fort McClellan, Alabama**  
**30 April 2004**

1.0 The original ESS states there would be a removal to depth in OE Area 2 (impact area portion) of the Eastern Bypass parcel, followed by UXO construction support to address any residual OE that may be found during highway construction. Amendment 1 adds a soil sifting operation for a portion of the Eastern Bypass parcel with an extremely high density of OE/OE Scrap. Amendment 2 adds 60 acres ("Y" area) to the original ESS. Correction 1 introduced a new figure 3, QD map for OE area 2, and added approximately 40 acres. Correction 2 will explain why a clearance to depth was not performed over the entire OE Area 2 of the Eastern Bypass and clarify the construction support now required for a portion of that area. The following sections of the original ESS are affected as shown:

**2.0 REASON FOR OE:**

Remains unchanged from approved ESS Amendment 2.

**3.0 AMOUNT AND TYPE OF OE:**

Remains unchanged from approved ESS Amendment 2.

**4.0 START DATE**

4.2 The OE construction support component will commence once support options have been finalized and the Alabama Department of Transportation (ALDOT) initiates highway construction operations.

**6.0 CLEARANCE TECHNIQUES.**

A removal to depth within the OE Area 2 for the grids listed below was not performed because it would require roadway destruction to eliminate the vast quantity of construction debris within designated grids that would interfere with ordnance identification. Furthermore, ALDOT has not provided the Army with a final roadway design for the Eastern Bypass Area. Therefore, the Army will have UXO Technicians present at the time of construction in OE Area 2 to inspect for ordnance after each foot of construction debris removed. This process will continue until the bottom of the debris pile is reached. Once virgin soil (undisturbed) is encountered, the Army will perform a subsurface removal to depth. The construction debris grids are identified in the following table:

C67	D22	D35	D54	D69	E12	R01	R13
D07	D23	D41	D55	D75	E13	R02	R18
D08	D28	D42	D61	D76	E22	R03	S02
D14	D29	D47	D62	D82	E23	R05	S03
D15	D30	D48	D66	D83	E35	R06	S04
D16	D34	D49	D68	E05	E63	R09	S05

Table 5 Construction Debris Grids

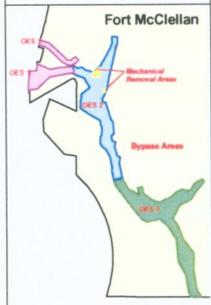
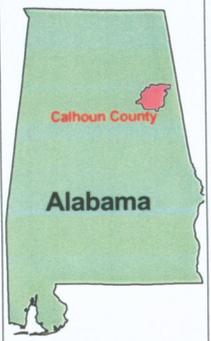
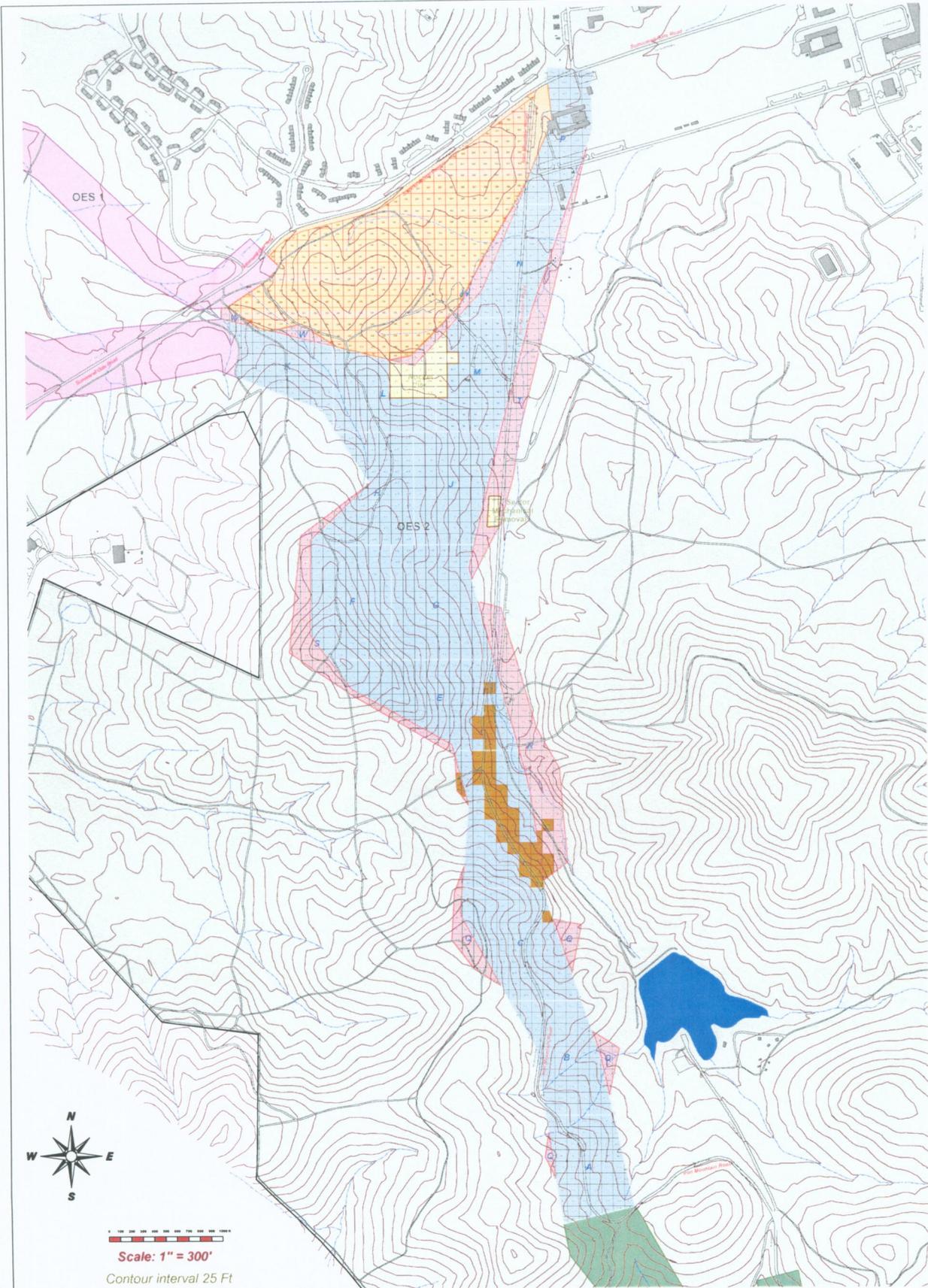
**10.0 LAND USE RESTRICTIONS**

10.1 The U.S. Army has agreed to provide construction support for the grids identified in Table 5 above once intrusive construction operations begin. Access to the construction site will be granted only to those individuals that have viewed the UXO safety digital video.

**12.5 CONSTRUCTION DEBRIS MAP**

12.5.1 The attached map, Explosive Safety Submission Eastern Bypass Correction 2, Figure 4, Construction Debris, illustrates grids that require construction support.

12.5.2 Remains unchanged from approved ESS Amendment 2.



**LEGEND**

- Y Area Grids
- Bypass Grids
- Construction Debris (Requires Construction Support)
- Bypass Sectors in OES 2
- Mechanical Removal Areas

- Ordinance and Explosives Sites**
- OES 1
  - OES 2
  - OES 3

- Y Area
- 40 Acre Extension Areas
- Buildings
- Roads
- Lakes
- Streams
- 25' Contours
- Fort McClellan