



DEPARTMENT OF THE ARMY
HUNTSVILLE CENTER, CORPS OF ENGINEERS
P.O. BOX 1600
HUNTSVILLE, ALABAMA 35807-4301

REPLY TO
ATTENTION OF:

CEHNC-DE

20 JAN 2006


MEMORANDUM FOR Commander, US Army Engineer District, Baltimore, (CENAB-EN-HM/Mr. Craig Maurer), 10 South Howard Street, Baltimore, MD 21201

SUBJECT: Time Critical Removal Action (TCRA) Explosives Safety Submission (ESS), Elkton Farm Firehole Site, Elkton, MD, 13 January 2006

1. References:

- a. Engineer Pamphlet 385-1-95b, Explosive Safety Submission, 28 March 2003.
 - b. Memorandum, CESO-E, subject: Headquarters, Corps of Engineers, Delegation of Authority, 25 March 2003.
 - c. Memorandum, CEHNC-DE, subject: Delegation of Authority, 9 March 2004.
2. The subject Time Critical Removal Action ESS is granted Major Army Command (MACOM) approval under the provisions of reference 1(c).
3. Any changes to this TCRA ESS must be made IAW the above references.
4. My point of contact for this action is Mr. Hank Hubbard at 256-895-1586.

Encl



JOHN D. RIVENBURGH
Colonel, Corps of Engineers
Commander

CENAB

Date: 17 January, 2006

SUBJECT: TCRA Explosive Safety Submission

1. SITE

- a. **Name:** Elkton Farms Firehole
- b. **Address:** 183 Zeitler Road, Elkton **State:** Maryland **County:** Cecil

Location: The Elkton Farm Firehole Site is located two miles northwest of Elkton, Maryland. The Site occupies at least 55 acres of an approximate 400-acre farm property. The Firehole parcel is located on the USGS Bayview/Newark West quadrangles at approximately 39°38' north latitude and 75°53' west longitude and has a Maryland grid coordinate of 655,000 N and 1,117,500 E. The site is bounded on the west by Laurel Run, to the north by Zeitler Road, and to the East by Little Elk Creek. A gravel access road bisects the western quadrant of the site. Four suspect fireholes (former disposal areas) are located west of the gravel access road.

2. ANTICIPATED DATES:

- a. **Start:** 23 January, 2006
- b. **Complete:** 15 November, 2007

3. **PURPOSE:** This is a Time Critical Removal Action (TCRA) of Munitions and Explosives of Concern (MEC) scattered over 55 acres of farmland. 14 acres of this 55 acre site have been identified as high density anomaly areas (HDA). The HDA is identified in the location of 4 suspected former disposal pits. The HDA will be addressed under a separate conventional Explosive Safety Submission (ESS). This project is planned to be executed in two phases. The first phase will address munitions debris (MD) and MEC scattered over the surface outside of the HDA. This TCRA ESS addresses the phase I project area of 41 acres that lies outside the boundary of the HDA. Current site use is primarily agricultural, with an area of medium to heavy industry property to the southeast across Little Elk Creek.

4. **Site Background and Current Conditions:** The Elkton Farm property and surrounding fields were farmed during much of their known history (including the location of the fireholes). The MEC contamination appears to be a result of incomplete disposal operations conducted during World War II as part of the operations of Triumph Explosives, Inc. (TEI), which occupied property adjacent to the Elkton Farm property. Munitions residue were disposed of in a series of shallow pits on the Elkton Farm.

In July of 2002, US EPA Region III, and Maryland Department of the Environment, Waste Management Administration, contracted for a geophysical survey to be conducted over 55 acres. The HDA were identified in the location of the former disposal pits.

CENAB conducted a site visit in 2004. Projectile nose and tail fuzes (40mm and 37mm), and parts and pieces of pistol and "pop" flares were discovered over a large part of the surface of the property visited (55 acres).

5. EXECUTING AGENCIES.

- a. USACE Baltimore District
Project Manager: Craig Maurer (410) 671-6003
Design Team Leader: George Follett (410) 962-6743
MEC Safety Manager: Paul Greene (410) 962-6741
- b. Contractor: IPC
Project Manager: Skip Paradine (256) 722-9090 ext 22

EPA Region III is funding this CERCLA project. CENAB will be responsible for ensuring that the site is cleared of MEC under an Inter Agency Agreement with EPA.

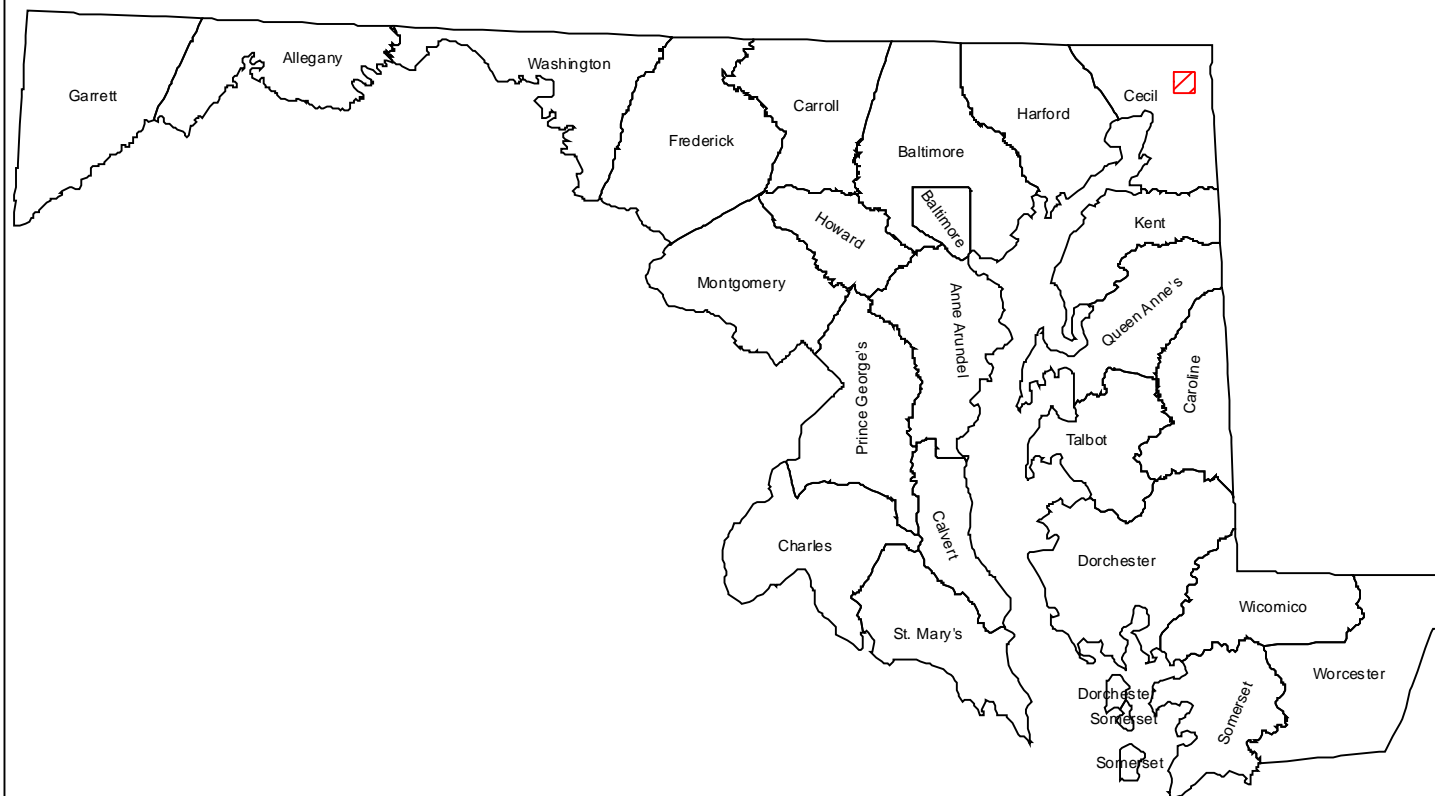
6. SCOPE OF REMOVAL ACTION:

This TCRA ESS addresses mitigation of the imminent threat by removing the MEC from 41 acres of farmland, that lie outside the boundaries of the HDA, to a depth of 18". This is the maximum depth that agricultural activities are expected to attain. Unacceptable to move MEC items will be disposed of in place. Acceptable to move items will be stored in ATF Type II magazines and disposed of in consolidated shots.


7. SAFETY CRITERIA:

- a. The munition with the greatest fragmentation distance (MGFD) expected to be encountered is the M704 nose fuze for the 37mm projectile. The calculated maximum fragmentation range is: **236 feet** (Table C9-T2 ≤ 5 lb NEW)
- b. If an MEC item with a greater fragmentation distance is encountered, the MSD will be adjusted per DDESB TP 16, and an amendment to this ESS will be expeditiously submitted.
- c. **Q-D: MEC Area:** Minimum Separation Distance (MSD): **236 feet**
Team separation distance: **200 feet**
- d. **Q-D Intentional Detonation Activities:**
Unbarricaded separation distance: **236 feet** (Maximum Fragment Range).
Barricaded (sandbag enclosure) separation distance: **200 feet**.
Consolidated demolition shots must maintain an exclusion zone equivalent to the MSD or to the K328 distance of the combined demolition materials, whichever is greater.
- e. **Q-D MEC Storage Magazines: 658 feet** (Table C9-T2 column 2. NEW not to exceed 100 lbs, HC 1.1). Inhabited dwellings and public use roadways are in excess of 700 feet away. Two co-located ATF Type 2 Explosive Storage Magazines, sited as one magazine, will be used for storage of acceptable to move munitions for consolidated shots. The magazines will be monitored by the site security force at all hours. Magazines will be installed and grounded IAW EM 1110-1-4009.
- f. Donor explosives will be delivered on an as needed basis.
- g. During MEC activities that impact Zeitler Road, the road will be secured and/or MEC activities suspended, as necessary.

9. Maps depicting site vicinity, ATF Type II storage magazines storage area, and Q-D Arcs are attached.



Legend


 Elkton Farms Firehole
 Project Location

1

0 20 40 60 Miles

Elkton Farms Firehole Project
 Elkton, Maryland

Vicinity Map

Map Prepared for:
 InfoPro Corporation

Map Created: January 4, 2006



Legend

- Site Trailer
- ▲ Magazine Location
- High Intensity Area
- 658 foot Magazine Buffer
- 236 foot MGFD Buffer
- Bumpit Area (55 acres)
- 100 foot High Intensity Area Buffer
- 200 X 200 foot Grid
- Powerline
- Gravel Road
- Zeitler Road

1

0 300 600 900 Feet

Elkton Farms Firehole Project

Elkton, Maryland

236 Foot MGFD

Map Prepared for: InfoPro Corporation

Map Created: January 10, 2006