



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CENTRO EUROPA BUILDING, SUITE 417
1492 PONCE DE LEON AVENUE, STOP 22
SAN JUAN, PR 00907-4127

April 20, 2011

Mr. Kevin Cloe
Project Manager
Commander Atlantic Division
Naval Facilities Engineering Command
6506 Hampton Boulevard
Norfolk, VA 23508-1278

Re: Review of the Draft Engineering Evaluation/Cost Analysis for Surface MEC Removal from the Munitions Response Site UXO-13, Former Vieques Naval Training Range, Vieques, Puerto Rico

Review of the Draft Non-Time-Critical Removal Action Work Plan for the Surface Removal from the Munitions Response Site UXO-13, Former Vieques Naval Training Range, Vieques, Puerto Rico

Dear Mr. Cloe:

The U.S. Environmental Protection Agency (EPA) completed the reviews of the Draft Engineering Evaluation/Cost Analysis (EE/CA) for Surface MEC Removal from the Munitions Response Site UXO-13, Former Vieques Naval Training Range, Vieques, Puerto Rico, dated February 2011, and the Draft Non-Time-Critical Removal Action (NTCRA) Work Plan for the Surface Removal from the Munitions Response Site UXO-13, Former Vieques Naval Training Range, Vieques, Puerto Rico, dated February. Enclosed you will find our comments.

Please note that the comments for the Draft NTCRA Work Plan for the Surface Removal from the Munitions Response Site UXO-13 are preliminary comments. EPA will submit final comments, if any, once the EE/CA has undergone public review and becomes final.

If you have any questions or comments, please contact me at (787) 741-5201.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Daniel Rodríguez', with a long horizontal flourish extending to the right.

Daniel Rodríguez
Remedial Project Manager
Response and Remediation Branch

Enclosures

cc: Wilmarie Rivera, EQB, w/ encl.
Richard Henry, FWS, w/encl.
Brett Doerr, CH2M Hill, w/ encl.
Julio Vazquez, EPA-ERRD, w/ encl.

**DRAFT ENGINEERING EVALUATION/COST ANALYSIS FOR
SURFACE MUNITIONS AND EXPLOSIVES OF CONCERN (MEC) REMOVAL
FROM THE MUNITIONS RESPONSE SITE (MRS) UXO-13
FORMER VIEQUES NAVAL TRAINING RANGE
VIEQUES, PUERTO RICO
DATED FEBRUARY 2011**

Presented below are technical review comments on the *Draft Engineering Evaluation / Cost Analysis for Surface Munitions and Explosives of Concern (MEC) Removal from the Munitions Response Site (MRS) UXO-13, Former Vieques Naval Training Range, Vieques, Puerto Rico*, dated February 2011 (Draft MRS UXO-13 EE/CA).

GENERAL COMMENTS

1. The Draft MRS UXO-13 EE/CA does not identify the total site acreage, the percentage of the site that will be surface cleared of MEC under Alternative 3, or the percentage that will have the engineering controls (ECs) applied under Alternative 2. Also, the description of Alternative 2 presented in line 23 of the Executive Summary section differs from that provided in line 6 of Section 4.1, Alternatives Description. Although Figure 4-1, Proposed Fence Location, appears to display the fenced area as being consistent with the area of MRS UXO-13 that will have the surface MEC removed under Alternative 3, no definitive statement that this is the case is presented in the Draft MRS UXO-13 EE/CA. It also appears that the title of Alternative 2 (i.e., Engineering Controls) and the first two sentences in Section 4.1.2, Engineering Controls, are somewhat misleading and suggest that these ECs apply to the entire MRS UXO-13 site instead of a select portion thereof. The first two sentences state that “The engineering controls alternative would provide physical barriers and signage to prevent access to UXO-13. As part of this alternative, fencing would be placed along all potential access points and frequent signage would be put in place.” These two sentences only reflect what these ECs will accomplish for the “select portion” of MRS UXO-13. This alternative does not provide the described controls for the entire area of MRS UXO-13.

To resolve these issues the following changes should be made:

- Revise the Executive Summary and/or Section 4.1 as needed to make the two descriptions of Alternative 2 consistent.
- Change the title of Alternative 2 to read, “Engineering Controls for A Select Area of UXO-13.”
- Provide the total acreage of MRS UXO-13 at an appropriate location in Section 2, Site Description and Background.
- List the acreage and the percentage of the total MRS UXO-13 acreage that will be covered by Alternatives 2 and 3 in their respective descriptions.
- Revise the Executive Summary and Section 2 discussions of Alternative 2 to eliminate any indication that this alternative provides ECs for the entire MRS UXO-13 area.

SPECIFIC COMMENTS

- 1. Section 1, Introduction, page 1-1:** Please revise the second paragraph to replace the Revised Draft Expanded Range Assessment (ERA) and Phase I Site Inspection (SI) Report and the ongoing ERA and Phase II SI reference with the final ERA/SI Report dated September 2010.
- 2. Table 2-1, UXO-13 Range Description, page 2-2:** The range listed as “R-3” is described as a “Hand grenade range.” However, the narrative states that “Fragmentation hand grenades were fired from a control pit, seaward towards the target area.” It is unclear how these grenades were actually deployed, and this could make a significant difference in the area potentially contaminated with MEC. Review the narrative concerning this range and determine if the grenades were “fired” or were thrown. Revise the narrative as necessary.
- 3. Section 2.3, Current and Future Land Use, page 2-6:** Lines 11 and 12 of this section state “It is likely that future site activities (particularly intrusive) will require the support of qualified UXO technicians.” The term “qualified UXO technicians” is not defined in the Draft MRS UXO-13 EE/CA and may cause some confusion as to what is intended. In actuality, any UXO technician in positions I, II, or III is supposed to be qualified in the requirements thereof as specified in Department of Defense Explosives Safety Board (DDESB) Technical Paper (TP) 18, Minimum Qualifications for Unexploded Ordnance (UXO) Technicians and Personnel. However, there are certain limitations placed on UXO Technician I personnel, and they are not considered to be “UXO-Qualified” per that document. Define the term “qualified UXO technicians” at an appropriate location in the Draft MRS UXO-13 EE/CA. As an alternative, list the position titles (i.e., UXO Technician I, II, III) of the UXO technicians that will be required to perform the functions noted in Section 2.3.
- 4. Section 2.4.2, Expanded Range Assessment and Phase I Site Inspection Report, page 2-6:** The sentence on lines 25-28 of this section notes that, “Although over 300 munitions related items were identified at UXO-13 (Figure 2-4, Table 2-2), the items that exhibited a high explosive safety hazard (MEC and material potentially presenting an explosive hazard [MPPEH] items) were predominantly located either within or to the east of Range 7.” A review of Figure 2-4 determined that it is titled “Proposed Land Use for the Former VNTR for the EE/CA,” and does not contain the noted information. Review the figures included in the Draft MRS UXO-13 EE/CA and identify the correct figure or figures in the cited sentence.
- 5. Section 4.1.3, Alternative 3 – Removal of Surface MEC from A Selected Area of UXO-13, page 4-1:** Lines 25-27 of this section state “However, if evidence obtained during the NTRCA suggests that MEC/MPPEH are present west of Range 7, the removal action will extend west to address additional area(s) where MEC/MPPEH is present.” No further discussion of this issue, what constitutes the noted evidence, or the process to be used to determine how far to the west the boundary will be extended is provided in this

section or appears to have been provided elsewhere in the Draft MRS UXO-13 EE/CA. Revise the appropriate sections of the Draft MRS UXO-13 EE/CA to:

- Provide a detailed discussion of precisely what will constitute evidence that suggests that MEC/MPPEH are present west of Range 7.
- Provide the details of the process to be used to extend the boundary and how it will be determined that no further extension is necessary.

(NOTE: A concurrent review of the Draft Non-Time-Critical Removal Action Work Plan, Surface Munitions and Explosives of Concern at Munitions Response Site UXO-13 also determined that it does not appear to contain a description of the noted process.)

6. **Section 7, References, page 7-1:** Lines 14-15 of the section read as follows: “United States Department of Defense (DoD). 2008. *Ammunitions and Explosives Safety, DoD 6055.9*. February 29.” This document has been reissued and the reference should read, “United States Department of Defense (DoD). 2008. *Ammunition and Explosives Safety Standards, DoDM 6055.09-M*. February 29 (administratively reissued August 4, 2010).” Revise this section and any references to this document in the Draft MRS UXO-13 EE/CA and its attachments.

**DRAFT NON-TIME-CRITICAL REMOVAL ACTION (NTCRA) WORK PLAN
SURFACE MUNITIONS AND EXPLOSIVES OF CONCERN (MEC)
AT MUNITIONS RESPONSE SITE (MRS) UXO-13
FORMER VIEQUES NAVAL TRAINING RANGE
VIEQUES, PUERTO RICO
DATED FEBRUARY 2011**

Presented below are technical review preliminary comments on the *Draft Non-Time-Critical Removal Action (NTCRA) Work Plan, Surface Munitions and Explosives of Concern (MEC) at Munitions Response Site (MRS) UXO-13, Former Vieques Naval Training Range, Vieques, Puerto Rico*, dated February 2011 (Draft MRS UXO-13 Surface MEC WP).

GENERAL COMMENTS

1. There appears to be a disconnect between the Draft MRS UXO-13 Surface MEC WP and the associated Draft Engineering Evaluation/Cost Analysis (EE/CA) concerning the potential expansion of the removal area if it is determined that the current boundaries do not include the entire area of concern for surface MEC that exists in MRS UXO-13. The Draft EE/CA states in Section 4.1.3, Alternative 3 – Removal of Surface MEC from A Selected Area of UXO-13, that “...if evidence obtained during the NTRCA suggests that MEC/MPPEH [material potentially presenting an explosive hazard] are present west of Range 7, the removal action will extend west to address additional area(s) where MEC/MPPEH is present.” The Draft MRS UXO-13 Surface MEC WP does not describe a procedure for accomplishing this extension of the remedial action, nor does it reference where one may be found elsewhere. Revise the Draft MRS UXO-13 Surface MEC WP to:
 - Include a discussion of the potential that the area of MRS UXO-13 identified in the Draft EE/CA that is contaminated with MEC does not extend as far to the west as it should (i.e., west of Range 7).
 - Provide a detailed description of precisely what will constitute evidence that suggests that MEC/MPPEH are present west of Range 7.
 - Provide the details of the process to be used to extend the boundary and how it will be determined that no further extension is necessary during the potential work in the extended area.

2. The Department of Defense Explosives Safety Board (DDESB) administratively reissued DoD 6055.09-STD (Department of Defense Ammunition and Explosives Safety Standards) as DoDM 6055.09-M (Department of Defense Ammunition and Explosives Safety Standards) on August 4, 2010. The reissued document consists of 8 volumes (DoDM 6055.09-M-V1 through DoD 6055.09-M-V8). Revise all references to DoD 6055.09-STD to read DoDM 6055.09-M. If a specific volume is intended in the reference, include the volume number and title.

SPECIFIC COMMENTS

- 1. Acronyms and Abbreviations, page x:** The acronym “NAVEODTECHDIV” is defined in this section as “Naval Explosives Ordnance Disposal Technical Division.” The correct definition is “Naval Explosive Ordnance Disposal Technology Division.” Correct this definition in this section and in Section 1.1, introduction, lines 15-16.
- 2. Table 1-1, Areas Included in the NTCRA, page 1-3:** In the R-3 row of the table, the Range Use column lists this range as a “Hand grenade range.” However, the narrative in the Description of Site column states that “Fragmentation hand grenades were fired from a control pit, seaward towards the target area.” It is unclear how these grenades were actually deployed, and this could make a significant difference in the area potentially contaminated with MEC. Review the narrative concerning this range and determine if the grenades were “fired” using a projection adapter or were thrown (or if both were the case). Revise the narrative as necessary.

In the R-4 row of the table, the Description of Site column states, “40mm rifle grenades were fired in a seaward direction into an area adjacent to the beach.” There is not, and never has been, a Department of Defense type-classified munitions designated as a “40mm rifle grenade.” There are 40mm projectiles fired from 40mm grenade launchers, some of which are attached to rifles. However, none of the related technical documents (TM 43-0001-28, FM 23-31, The “Yellow Book” [Hazard Classification of United States Military Explosives and Munitions], etc.) list the 40mm munitions fired by grenade launchers as “rifle grenades.” A true rifle grenade is launched by a cartridge fired in the chamber of the launching rifle, using a launcher attached to the muzzle of the rifle. This is not the case with the 40mm grenades fired at this range, and they are technically not “rifle grenades.” Remove the word “rifle” from the designation of the noted munitions in the cited portion of Table 1-1.

- 3. Figure 1-7, Eco Habitats:** The yellow color for the Conservation Zone markings shows up fairly well on the figure due to the dark color of the background. However, it is almost invisible in the legend due to the white background, both in print and in the electronic form. Consider changing the color from yellow to one with more contrast.