

CHAPTER 23  
UXO SUPPORT FOR CONSTRUCTION ACTIVITIES

23-1. Introduction. This chapter discusses explosive soils, anomaly avoidance, and UXO support during construction as part of OE response actions on FUDS.

23-2. Explosive Soils.

a. General. Explosive soil, primary explosives, and secondary explosives are defined in the glossary.

b. Soil Contaminated with Primary Explosives and Propellants. For soils known or suspected to be contaminated with any concentration of primary explosives or propellants, the following will apply:

(1) The OE MCX will be contacted for sampling and cleanup procedures prior to initiating any work.

(2) Responsibilities for sampling and cleanup of soils contaminated with any concentration of primary explosives or propellants will be determined on a case-by-case basis.

c. Soil Contaminated with Secondary Explosives. For soils known or suspected to be contaminated with secondary explosives, the following will apply:

(1) The HTRW Design District is responsible for the design and removal or remedial action to cleanup soils contaminated with secondary explosives. However, where military munitions (excluding bulk explosives) are suspected or known to exist, the OE Design Center is responsible for the design and the OE Design Center or the district approved to execute OE removal actions is responsible for the cleanup.

(2) The HTRW Design District will sample and analyze site soil samples to determine by compositional analysis whether areas exist where soils are in excess of ten percent secondary explosives. Sampling and analysis procedures can be obtained from the HTRW MCX. Project documents to include a sampling and analysis plan will be prepared and submitted to the HTRW MCX in accordance with the current approved HTRW responsibilities matrix (the matrix is available on the Internet at <http://www.usace.army.mil/inet/centers/mcx/htrw/htrw.htm> under the "List of Mandatory Services"). The Work Plan and SSHP will be submitted to the OE MCX for review prior to beginning any sampling. UXO support is required during sampling.

(3) When the concentration of secondary explosives is determined to be ten percent or greater, the HTRW Design District will prepare an ESS for cleanup in addition to the project documents required by existing HTRW guidance. Project documents will be submitted to the

HTRW MCX in accordance with the current approved HTRW responsibilities matrix. The Work Plan and design documents (HSDA and SSHP) will be submitted to the OE MCX for review. The ESS will be submitted to the OE MCX for comments and written concurrence or nonconcurrence. The OE MCX will forward the ESS to CESO for monitoring, concurrence, and forwarding to higher headquarters for approval. The cleanup will not begin until the DDESB or their designee approves the ESS. The OE MCX should be contacted for further information on ESS requirements.

(4) When the concentration of secondary explosives is determined to be less than ten percent, the HTRW Design District will prepare and submit documents for review and approval in accordance with the current approved HTRW responsibilities matrix and ER 385-1-92.

d. Unexpected Ordnance Finds. If military munitions (excluding bulk explosives) are discovered during any phase of the explosive soils remediation, field work will cease and the OE MCX will be contacted. The OE MCX will assess the situation and consult with the HTRW MCX and the OE project team to determine the appropriate course of action to take in completing the project.

### 23-3. Anomaly Avoidance/UXO Support During Construction Activities.

#### a. General.

(1) Anomaly Avoidance. Anomaly avoidance refers to techniques employed by EOD or UXO personnel at sites with known or suspected OE to avoid any potential surface UXO and any subsurface anomalies. This usually occurs at mixed hazard sites when HTRW investigations must occur prior to execution of an OE removal action. All surface UXO and subsurface anomalies will be avoided during investigation activities. Intrusive anomaly investigation is not authorized during anomaly avoidance operations, but any surface ordnance discovered will be noted so that later operations can readily find them. Contact the OE MCX for additional information on team composition, activity specific procedures, and quality management requirements for anomaly avoidance.

(2) Construction Activities. Construction projects on known or suspected OE sites may require UXO support. When a determination is made that the probability of encountering UXO is low (e.g., current or previous land use leads to an initial determination that OE may be present), a two person UXO team will stand by in case the construction contractor encounters a suspected UXO. When a determination is made that the probability of encountering a UXO is moderate to high (current or previous land use leads to a determination that OE was employed or disposed of in the parcel of concern, e.g., open burn and open detonation areas, impact areas, maneuver areas, etc.), UXO teams are required to conduct subsurface UXO clearance for the known construction footprint in conjunction with the construction contractor prior to construction intrusive activities. The level of effort for construction support will be determined

on a case-by-case basis in coordination with the OE MCX. Additional information on the specific procedures, team composition, and quality management requirements for UXO support for construction activities is available from the OE MCX.

b. Responsibilities.

(1) Districts preparing to work on a project site with known or suspected OE (including Civil Works) will coordinate the project the OE MCX.

(2) If a UXO Support action is deemed insufficient to address OE concerns, then an OE response action must be initiated. The appropriate OE Design Center will be notified and a response plan will be developed.

(3) The district is responsible for supervising the field work. The OE MCX will spot check the field work to ensure conformance with the approved work plan and SSHP. Upon completion of the field work, the district will prepare a draft report that will be sent to the OE MCX for review.

(4) HTRW Design Districts should include anomaly avoidance capability in all applicable indefinite delivery order contracts for HTRW reports, designs, or remedial actions on FUDS or active military sites. Contact the OE MCX for applicable contract DIDs.

c. Documentation.

(1) The district is responsible for executing the preparation of SOWs and Work Plans for anomaly avoidance and UXO support during construction activities. These documents will be reviewed by the OE MCX.

(2) When an ESS is required for UXO Support activities, the OE Design Center is responsible for executing the ESS. The ESS will be reviewed by the district, OE MCX and HQUSACE. The ESS will be monitored by the MSC. Final approval of the ESS will be provided by HQUSACE.