UXO Construction Support / UXO Escort Services

Do you need UXO/MEC support for a construction, environmental, or HTRW project? If so, Ordnance Holdings, Inc. (OHI) can help.

Below are some FAQs related to UXO support on projects. For more information, please contact OHI's / UXOInfo.com's Client Relations Manager - Jenna at jenna@ordnanceholdings.com

Based upon DoD guidance (Department of Defense Explosive Safety Board Manual 60559-M-V7), UXO escorts are required for "individuals, who for operational reasons (e.g., environmental monitoring), are authorized access to areas under DoD control that are known or suspected to contain UXO". The need for UXO Escorts is not limited to environmental monitoring. Other activities such as archaeological studies, endangered species counts and studies, groundwater sampling and well installation, and soil sampling in areas known or suspected to contain UXO also require a UXO Escort.

UXO Escorts provide what is known as "anomaly avoidance" which is defined by DoD as "techniques employed on property known or suspected to contain UXO, other munitions that may have experienced abnormal environments (e.g., Discarded military munitions [DMM]), munitions constituents in high enough concentrations to pose an explosive hazard, or chemical agent (CA), regardless of configuration, to avoid contact with potential surface or subsurface explosive or CA hazards, to allow entry to the area for the performance of required operations."

Anomaly avoidance is provided by a trained and qualified UXO Technician(s) who provides safety oversight of untrained personnel in areas known or suspected to contain UXO. Anomaly avoidance involves avoiding or staying clear of visible surface hazards and subsurface anomalies. UXO Escorts have the following responsibilities:

- Providing UXO / hazard recognition, location, and safety oversight functions during intrusive activities; and
- Conducting daily safety briefings for all site personnel and visitors.

The level of UXO support required during construction activities depends on the probability of encountering UXO. A 'low-probability' determination may only be assigned to those areas for which a search of available historical records and on-site investigation data indicates that the likelihood that UXO are present is low.

If the probability of encountering UXO is low, 'UXO Standby Support' may be utilized. UXO Standby Support involves providing basic level UXO awareness training to construction personnel to recognize general hazards.

When a suspect hazard is located during On-Call support, the construction company stops work and evacuates the area when they come across any suspect hazard. The construction company does not attempt to move, disturb, or remove the hazard; rather they call the UXO Technicians in to investigate and positively identify the potential hazard. If the hazard is munitions related, the UXO Technicians will coordinate the proper management of the items. "On-Call support is only used in rare instances when the probability of UXO is determined by a qualified expert to be low.

When a determination is made that the probability of encountering UXO is moderate to high, 'On-Site UXO Support' is required (or UXO-qualified team must conduct a subsurface removal within the known construction footprint and remove all discovered UXO prior to construction).

If subsurface removal is required in support of construction activities, the UXO teams must also meet the following standards in accordance with USACE EP 75-1-2:
Each team will not include more than six (6) team members in addition to the UXO Technician Level III who is tasked with supervising all UXO operations and all personnel assigned to his/her team.

- A Senior UXO Supervisor (SUXOS) will be on-site and will not supervise more than 10 UXO Technician Level IIIs. There will not be more than one SUXOS per project.
- The position of UXO Safety Officer (UXOSO) will be required on all subsurface removal projects in support of construction activities.

It is important to note that a commercial UXO clearance also requires an Explosives Safety Submission (ESS) to be developed. This process can take 12 weeks or more due to the approvals required.

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The U.S. Army Corps of Engineers (USACE) *Engineer Pamphlet 75-1-2, Munitions and Explosives of Concern Support During Hazardous, Toxic, and Radioactive Waste and Construction Activities* states “For anomaly avoidance on an HTRW site with known or suspected MEC, the contractor shall provide a UXO team consisting of a minimum of two personnel, one of whom must be a UXO Technician II. This individual will be the UXO team leader. The UXO team must be on-site during all sampling activities. The UXO team may include additional UXO-qualified personnel, geophysicists, or any other team member, depending on site- and task-specific conditions/requirements.”

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The Department of Defense Explosives Safety Board (DDESB) sets the standards for UXO Technicians. The qualifications for UXO Technicians are defined in DDESB *Technical Paper 18 (TP-18)*. TP-18 outlines qualifications for UXO Technicians Levels I, II, III, UXO Safety Officers (UXOSO), UXO Quality Control Specialist (UXOQCS), and Senior UXO Supervisors (SUXOS).

According to TP-18, an escort needs to be UXO Technician Level II (or higher) qualified. UXO Technician Level II is a graduate of U.S. military EOD school or military EOD schools from Canada, Great Britain, Germany, or Australia or a Graduate of a civilian UXO school with at least three (3) years of experience in munitions response actions or range clearance activities.

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OSHA’s Hazardous Waste Operations and Emergency Response -- better known as “HAZWOPER” standards -- are codified in 29 CFR 1910.120 and 1926.65. These standards apply to all sites known or suspected of containing military munitions including munitions response sites and operational ranges. OSHA requires UXO Technicians to have 40-hour training as well as annual 8-hour refresher training. Supervisors are also required to have supervisors training. UXO Technicians are also required to get annual medical physicals.

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UXO Escorts typically use a hand-held metal detector to aid in the UXO avoidance process. If the project requiring the escort involves deep intrusive activities such as groundwater sampling or well installations, the UXO Escort will also use a bore-hole magnetometer. The bore-hole magnetometer is used to detect subsurface anomalies which may be UXO. Typically, in a groundwater well installation example, the UXO Escort will test the bore hole every 3-4 feet until the hole is deeper than the greatest penetration depths of the munitions expected at the site.

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Tasks performed by UXO Escorts vary by the specifics of the project and personnel requiring the escort. Every escort project starts off with the development of an amendment to the Site Specific Health and Safety Plan to cover UXO hazards and the development of an Accident Prevention Plan (APP). Once the safety plans are in place, the UXO Escort provides daily tailgate safety briefs prior to the team entering the range area. General as well as range-specific hazards are covered in the daily tailgate briefs along with other safety observations. During the escorting process, the UXO Escorts will coordinate with range control personnel to gain access to the ranges; survey the ingress/egress routes; identify and mark explosives hazards in the field; and account for all personnel while down range.
According to USACE EP 75-1--2, anomaly avoidance on sites known or suspected to contain UXO, must consists of a minimum of two personnel, one of whom must be a qualified UXO Technician II (or above) qualified. The number of UXO Technician escorts required depends upon the number of personnel being escorted. One UXO Technician can escort up to six (6) non-UXO personnel, provided the group stays together (i.e., within eyesight) of the UXO Technician.

If UXO Disposal is required, USACE EP 75-1-2 requires a third Sr. Level UXO Technician to support the operation. Commercial disposal of UXO also requires the development of an Explosives Safety Submission (ESS) which takes 12-weeks or more to complete due to the required DoD level reviews. UXO disposal options should always be identified during the planning phase of the project to ensure proper disposal processes are in place. Active duty military Explosive Ordnance Disposal (EOD) personnel do not need an ESS to conduct UXO disposal.

Technically, Yes you can hire your own UXO Technician for your job but selecting the technician(s) to support your project requires an in-depth knowledge and understanding of the laws and policy regulations covering UXO Escorts. You also need to know the laws and rules associated with the Service Contract Act and ensure that you have the proper safety plans in place. Why risk the health and safety of your employees and your project? Hire OHI to provide UXO Escorts for your next construction, environmental, or HTRW related project.

OHI provides a full-service UXO Escort service. Call or email your project specifications and we'll design a proper UXO Escort plan for your project. We will also develop the UXO-specific health and safety plan, accident prevention plan, and provide qualified UXO Escorts directly to your project. We handle the worker compensation insurance, payroll, and HR issues with hiring temporary UXO Escorts for your project.

OHI has a perfect safety record with no loss time from work. We have a large network of technicians and can support short and long term projects.

Download the factsheets on OHI's Service Offerings for:
UXO Construction Support / Anomaly Avoidance
Dredging Support

For a quote on your project, please contact Jenna at 443-522-2933 or jenna@ordnanceholdings.com.