

**BLYTHE SOLAR POWER PROJECT (09-AFC-6)**  
**CEC STAFF DATA REQUESTS 259 – 260**

**Technical Area: Worker Safety (AFC Section 5.18)**

**Response Date: January 6, 2010**

**DR-WS-259**

**Information Required:**

Please provide a Phase I ESA or a Geophysical Survey that addresses the issue of UXO.

**Response:**

A Phase I Environmental Site Assessment was conducted and the report provided as Appendix I to the BSPP AFC submitted to the CEC on August 24, 2009. It discusses the known historical uses of the Project site and provides a summary of findings, including a discussion of UXO.

See also the response to DR-WM-253. According to information provided in the Reconnaissance-Level Geotechnical and Water Supply Assessment for Blythe Solar Projects, prepared by CH2M HILL, there is the potential presence of UXO on the BSPP site. CH2M HILL reported the historical use of the Blythe site as part of General George Patton's Desert Training Camps during World War II (California-Arizona Maneuver Area). The Blythe Army Airfield, which had the purpose to train bombardment squadrons, is located adjacent to the south of the Project site. The CH2M HILL report identified two currently defined areas of interest are located within the boundary of the Blythe site (per Formerly Used Defense Sites Group of the United States Army Corps of Engineers [USACE]), which are determined to be small arms target ranges. The two ranges are identified as Poorman and Jeep Range.

While no currently identified camps, bivouacs, or mock battlefields (per USACE) and no areas of historical significance were currently identified within the site boundaries (per Bureau of Land Management [BLM] Desert Office), the BLM noted that many of the areas located at a distance from the camps or established facilities were often used for live-fire training and have been found to contain conventional and unconventional land mines and improvised personnel mines along with UXO. Based on the two defined areas of interest (former small arms ranges) identified within the BSPP site and proximity of the Project to the Blythe Army Airfield (currently an airport administered by the Riverside County Aviation Department), UXO surveys should be performed about two to four weeks before commencing construction activities, as described in the responses to DR-WM-254 through DR-WM-258.

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**DR-WS-260**

**Information Required:**

If the above assessments document the presence of UXO, please provide a UXO Detection and Neutralization/Removal Plan for the site areas where UXO were found.

**Response:**

As described in the responses to DR-WM-254 through DR-WM-258, further UXO detection will be accomplished in the weeks preceding construction activities in a specific area. If UXO/Munitions and Explosives of Concern (MEC) are found, the materials will be immediately reported in accordance with a specific reporting procedure to be developed prior to construction activities. This reporting will include reporting to specific Project management and supervisory personnel, Project owner personnel, contractor supervisors, and local, State, and/or Federal agencies, as appropriate.

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Digital Geophysical Mapping (DGM) will be conducted in accordance with the most current version of AECOM MRG-2009-002, *Standard Operating Procedure for Digital Geophysical Mapping, EM61 Mk2 and RTK GPS Navigation with Real-time Instrumentation and GPS anomaly Waypoint Mapping*. Transect tracks will be modified in the field, as necessary, to accommodate terrain or other obstacles based on site conditions encountered by the DGM field team to ensure adequate and complete coverage of the required construction footprint to be mapped. On-site geophysical data processing will be accomplished in order to facilitate and expedite the follow-on intrusive investigation of select anomalies. Potential MEC anomalies will be identified for subsequent intrusive investigation using both automated and interactive methods to evaluate multiple parameters in the recorded data.

Analog Geophysical Mapping (AGM) data will be collected in accordance with the most current version of AECOM MRG-2009-003, *Standard Operating Procedure for Analog Geophysical Mapping with Real-time Instrumentation and GPS anomaly Waypoint Mapping* for the construction footprint to be mapped. Five-foot-wide parallel survey lanes will be established covering the footprint. The exact number and sizes of lanes will vary based on the overall size and layout of each footprint area being investigated.

Intrusive investigation and MEC disposal work will be completed in accordance with:

- The work plan developed for the UXO activities;
- Applicable AECOM Health and Safety program requirements;
- Project Owner Health and Safety program requirements;
- Title 29 of the Code of Federal Regulations, Part 1910.120 and applicable parts of Title 8 of the California Code of Regulations;
- Engineering Pamphlet (EP) 385-1-95a, *Basic Safety Concepts and Considerations for Munitions and Explosives of Concern (MEC) Response Action Operations*; and
- Engineering Manual (EM) 1110-1-4009, *Engineering and Design - Military Munitions Response Actions*.

Intrusive investigation activities will be executed in a manner that minimizes the impact to natural and cultural resources.

The UXO dig teams, consisting of qualified UXO technicians, will re-establish the locations for DGM anomalies and confirm AGM anomalies prior to beginning an excavation to assure the exploration progresses to the side and not directly above the anomaly source. Hand-held metal detectors will be used to sweep in all directions away from the confirmed location. Once located, anomalies will be intrusively investigated using manual techniques (i.e., shovels or hand trowels).

The data for undiscovered anomalies will be reviewed by the Project Geophysicist and the UXO dig team lead. If there are no clear surface sources (e.g., terrain, vegetation, cultural clutter) and the data at that specific site is determined important to meet the project data quality objectives, the locations will be revisited with the original geophysical system to confirm anomalous response.

MEC located during the subsurface investigations will be reported to the AECOM Project Manager, Senior UXO Supervisor (SUXOS), and the appropriate customer, regulatory and/or law enforcement representatives.

Recovery and disposal of MEC found at the ground surface will be accomplished in accordance with the most current version of AECOM MRG-2009-2-18, *MEC Surface Removal*. All material potentially

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presenting an explosive hazard (MPPEH) will be dealt with in accordance with the most current version of MRG-2009-2-19, *Inspection and Disposal of MPPEH*. MEC disposal operations will be conducted in accordance with the most current version of MRG-2009-2-14(a), *MEC Demolition/Disposal Operations*.

The SUXOS will prepare and submit daily a detailed accounting of activities performed at the site using the Daily Field Activity Report and/or disposal shot record. The SUXOS will provide the Project Manager with a daily summary of the following information:

- Date and time operations began;
- Date and time operations were completed;
- Number of hours, by labor category, expended in performing operations;
- Type(s) and amounts of explosives used;
- Number, type, and description of UXO items encountered; and,
- Estimated weight of munitions debris metal removed from each transect investigated.

Data will be recorded using paper data forms and/or handheld personal computers programmed with a data capture template. The following information will be recorded for each suspected UXO encountered:

- Date the suspected UXO was encountered;
- Date the suspected UXO was destroyed/demilitarized;
- Description of the suspected UXO in standard ordnance terminology;
- Location of the UXO - Anomaly identification and transect or grid position (i.e., State Plane grid coordinates).
- Depth measurements will be taken from the top of mineral soil;
- Orientation of the UXO (direction and attitude); and,
- Condition (armed or unarmed).

A digital photo will be taken of each item determined to be MEC. This photo will have a whiteboard with the date and the anomaly identification in the foreground adjacent to the item for future identification. The photograph will be incorporated into the GIS and associated with the particular transect/grid where the photo was taken.

MEC items recovered will be energetically destroyed in-place (blown in place) and the daily log will be updated to reflect the disposition of the item.

UXO personnel will meet or exceed the UXO personnel qualifications outlined in Department of Defense Explosives Safety Board TP-18, *Minimum Qualifications for Unexploded Ordnance (UXO) Technicians and Personnel*.