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Subject: Yellow Alert- Performing Work Out of Scope Leads to Inadequate Work Controls

The following Bechtel Jacobs Company, LLC Lesson Learned Yellow Alert is distributed to communicate to other DOE facilities the importance ISMS - when the scope of work changes, you must reassess the hazards to ensure adequate controls are implemented. If you have any questions, please contact Joanne Schutt at (865)483-0554, [schuttj@pwtor.com](mailto:schuttj@pwtor.com).

**TITLE- Yellow Alert- Performing Work Out of Scope Leads to Inadequate Work Controls**

IDENTIFIER Y-2000-OR-BJCX10-0103 DATE January 27, 2000

**LESSON LEARNED STATEMENT-** When the defined scope of work changes, the work package or work release must be updated and the hazards and issues associated with the task reassessed assigned personnel to ensure adequate controls are implemented.

**DISCUSSION OF ACTIVITIES-** On June 12, 1998, a vendor was removing approximately 515 tons of uncontaminated miscellaneous scrap metal and surplus concrete from the Tower Shielding Facility (TSF) that had been purchased through a Property Sales contract. The surplus materials had been previously surveyed for radiological constituents and segregated into two areas, clean and radioactively contaminated/activated areas. The scope of this sales contract was to remove the surplus materials in the clean green-tagged pile only. In an effort to reduce the volume of radioactive waste remaining at the TSF site, the Bechtel Jacobs Company project engineer overseeing the scrap material removal identified a contaminated aluminum box that could easily be decontaminated by removing the contaminated side of the box. After one of the vendor's employees removed the contaminated section of the box with a cutting torch, the clean portion of the box was included with one of the scrap metal shipments. The vendor's employee who performed the cutting was not radiological (rad) worker trained. The cutting work was not performed under a radiological work permit (RWP), although a hot work permit was issued.

**ANALYSIS-** Although the box was contaminated, the radiological control technician (RCT) overseeing the work made a judgement call not to issue an RWP or require rad worker training for the worker cutting the box because the cuts were made only on clean portions of the box, as verified by a beta-gamma survey performed immediately before the box was cut. The subcontractor RCT was working under the facility's radiation protection procedures. The applicable procedure states that an RWP is required for non-routine work involved with changing radiological conditions, including welding, burning, or grinding on materials known or suspected of being radiologically contaminated. Since the cuts were made on the clean portions of the box, the question of whether the procedure required this task to be done under an RWP was open to interpretation. Such questions are better addressed during the pre-job planning phase, when various subject matter experts can be consulted, rather than relying on field decisions made by a single individual. To avoid such situations, work should strictly adhere to the defined work scope to which hazards were assessed during the pre-job planning. If

modifications to the work scope are necessary, work should be suspended until the work package or work release is updated and the hazards and issues associated with the task reassessed.

**RECOMMENDED ACTIONS-** Since the time of this occurrence, the Integrated Safety Management System (ISMS) has been implemented. By properly implementing the ISMS system, changes in work scope are reassessed for hazards prior to implementation. Subcontract Technical Representatives (STRs) are now assigned to all subcontracts to further ensure that all subcontracted work performed is within the defined work scope.

PRIORITY DESCRIPTOR Yellow/Caution

FUNCTIONAL CATEGORY(S) (DOE) Conduct of Operations; Management

BJC TREND CODE(S) (USER-DEFINED)- Conduct of Operations; Subcontracting; Planning & Controls; Management

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KEYWORDS Tower Shielding Facility, TSF, RWP, work scope, work controls

REFERENCES Occurrence Report ORO-BJC-X10ENVRES-1998-0006

HAZARDS Radiological; Personnel Protection

WORK ACTIVITY Material/Material Handling; Welding/Burning/Hotwork

**FOLLOW-UP ACTION-** Information in this report is accurate to the best of our knowledge. As means of measuring the effectiveness of this report please notify Joanne E. Schutt at (865) 483-0554, e-mail at [schuttj@pwtor.com](mailto:schuttj@pwtor.com) of any action taken as a result of this report or of any technical inaccuracies you find. Your feedback is important and appreciated.