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Subject: Blue Alert- Legacy Contamination Found

TITLE: Blue Alert- Legacy Contamination Found

IDENTIFIER L-2000-OR-BJCX10-0201 DATE February 14, 2000

LESSON LEARNED STATEMENT- Other DOE sites that have the potential for unidentified contamination areas should evaluate their operations for this lessons learned. Job planning for work that is to be performed in areas where current radiological survey information is not available should include actions requiring the radiological surveys to be performed and contingency plans detailing the steps to be taken if contamination is detected.

DISCUSSION OF ACTIVITIES- During a routine building survey, an area outside of the building was found to be contaminated. The area, about 3 ft. x 3 ft., was found containing small spots ranging in readings from 1,000 dpm to 75,000 dpm/100 cm² beta-gamma. No alpha contamination was found, and the contamination was not smearable. Upon further investigation, it was found that the contamination was actually small paint chips which were generated from a source outside of operations taking place at the building. This determination was reached because the color of the paint chips are different from any paint used at the facility, and, as the facility is relatively new (has been in operation for about two years), no paint has been chipped or blasted at the facility. The contamination area is therefore considered to be caused by a legacy source.

ANALYSIS- The direct cause was determined to be Radiological/Hazardous Material Problem, Legacy Contamination, and the root cause was Source Unknown. The area where the contamination was found was virgin, undisturbed soil prior to construction of the facility in 1996-97. Construction equipment may have caused the contamination because the contamination was determined to be in small paint chips. The contaminated paint chips do not match the facility paint scheme. No construction, chipping, or painting has occurred since the facility became operational. The facility was constructed in 1996 and became operational in 1997. Previous radiation surveys have not detected contamination at the facility. The current contamination (paint chips) in the 3 ft. x 3 ft. soil area outside the facility are considered legacy as the paint chips do not match facility paint. Because current practices are effective in controlling the spread of radioactive material, the only appropriate corrective action is to rope off the area where the contamination was found and decontaminate the soil. The facility entrances (east and north) were surveyed, and no additional contamination was found.

RECOMMENDED ACTIONS- The contaminated soil was removed per site procedures, the area was resurveyed, and no additional contamination was found.

PRIORITY DESCRIPTOR Blue/Information

FUNCTIONAL CATEGORY(S) (DOE) Environmental Protection; Environmental Restoration and Waste Management

BJC TREND CODE(S) (USER-DEFINED) EP - Environmental Protection; WM -Waste

Management

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KEYWORDS contamination, legacy contamination, soil, survey

REFERENCES Occurrence Report Number ORO-BJC-X10WSTEMRA-1999-0003

HAZARDS Radiological; Hazardous Materials

WORK ACTIVITY Radiological

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 of any action taken as a result of this report or of any technical inaccuracies you find. Your feedback is important and appreciated.