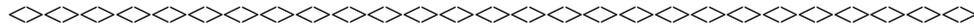


Date sent: Mon, 06 Jul 1998 13:19:27 -0400
From: "Eubanks, Cynthia M. (EUB) " <eub@bechteljacobs.org>
Subject: Lesson Learned - Violation of Radiological Posting Requirements

The following Bechtel Jacobs Company, LLC Lesson Learned is being distributed to communicate a lessons learned from a recent incident at the East Tennessee Technology Park (ETTP). If you have any questions, please contact Joanne Schutt at (423)574-1258, [e-mail=s6u@ornl.gov](mailto:s6u@ornl.gov). Cynthia M. Eubanks Performance/Quality Assurance Org. Bechtel Jacobs Company, LLC Phone: (423)576-7763.



TITLE: Violation of Radiological Posting Requirements

IDENTIFIER: L-1998-OR-BJCETTP-0603

DATE: June 26, 1998

LESSONS LEARNED STATEMENT: Failure to follow written radiological postings when performing field work and failure to realize that non-emergency verbal instructions are not appropriate to override written signs and postings can lead to violation of radiological posted requirements. Reminders to follow written postings and to not follow any verbal instructions that contradict any written instructions should be done with work crews in pre-job briefings, safety meetings, or other communications channels.

DISCUSSION: Laboratory Plant and Equipment (P&E) personnel had been spraying herbicide to kill excess vegetation around the outside fencing of a posted contaminated area. Access to a portion of the fence required entrance into the area, and the posting required a radiation permit for entry. The P&E personnel lowered the chain and entered the contamination area without a Radiation Work Permit. After they had entered, their truck became stuck in the soft ground. After the vehicle became stuck, the P&E personnel were surveyed for radioactive contamination and none was found. The vehicle, however, did have some surface contamination. Maximum levels could not be determined because of high background radiation. After decontamination, the truck was removed from the area and was resurveyed, and the contamination levels were below reportable limits.

ANALYSIS: A fact finding investigation occurred, to discuss the incident with the workers, their supervisor, P&E Management, Radiation Protection, and Quality Assurance and to determine the steps needed to ensure this did not occur again.

The posted contaminated area is a multi-acre site enclosed by a chain link fence. Additionally, there are two locations outside the fence that are contamination areas. Two P&E laborers, working outside the fence, had been spraying herbicide on unwanted vegetation growing on and adjacent to the fence. After spraying outside of the contamination areas, the workers stopped and contacted the maintenance coordinator and the radiological control technician (RCT). When these individuals arrived at the job site, the laborers indicated that they needed to enter inside of the fenced area to complete the spraying. The maintenance coordinator would not give

permission to enter due to knowledge (based on recent mowing) that the area inside the fence was too wet. It was decided that any spraying would have to be accomplished from outside the fence.

The laborers believing they had received verbal permission to enter the contamination areas outside the fence proceeded in their vehicle to the area and entered, despite the postings indicating no entrance without a Radiation Work Permit (RWP). No RWP was written for this activity. Since current radiological protection procedures and training indicate that all postings must be obeyed and that verbal instructions cannot supersede written postings, the direct and root causes of this incident are failure to follow radiological procedures.

A communication problem was a contributing cause to this event. The RCT did not understand that portions of the fence had already been sprayed and that the laborers were requesting to enter the posted contamination area outside the fence. If the RCT had understood this, he could have reminded the workers that an RWP was required for entry. In some cases, postings and/or RWP may require contacting a RCT for entry or other work, and the RCT may provide verbal instructions. However, these verbal instructions may not override written instructions in the RWP or on postings. Although radiological procedures and training reinforce compliance with written rules and postings, there may have been a misunderstanding on the part of some workers that a RCT verbal instruction could override written instructions.

This event highlighted the need to implement actions to communicate to all workers the requirements to obey posted signs. No personnel became contaminated as a result of this event, and the truck was successfully decontaminated for continued use.

RESOLUTION/RECOMMENDED ACTIONS: P&E will communicate lessons learned from this incident to all employees during Monday morning safety sessions. The need to understand that all signs, postings, and RWP instructions are to be followed and that verbal instructions are not acceptable to violate a written posting will be part of that communication.

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Performance/Quality Assurance

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NAME OF AUTHORIZED DERIVATIVE CLASSIFIER: S. P. Parks

NAME OF REVIEWING OFFICIAL: G. B. Boroughs

PRIORITY DESCRIPTOR: Blue/Information

KEYWORDS: contamination, RWP, radiation work permit, posting

REFERENCES: Occurrence Report: ORO--BJC-BJCBV-1998-0001

DOE FUNCTIONAL CATEGORY: Radiological Protection

LMES FUNCTIONAL CATEGORY: RP - Radiological Protection

HAZARD CATEGORY: Radiological

WORK ACTIVITY: Facility Maintenance, Roads/Grounds, 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 423/574-

1248, e-mail at s6u@ornl.gov of any action taken as a result of this report or of any technical inaccuracies you find. Your feedback is important and appreciated.