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From "Eubanks, Cynthia M. (EUB) " eub@bechteljacobs.org
Subject- Blue Alert- Violation of Radiation Work Permit (RWP)

TITLE- Blue Alert- Violation of Radiation Work Permit (RWP)

IDENTIFIER L-2000-OR-BJCETTP-0204 February 22, 2000

LESSON LEARNED STATEMENT- Each time a person is to enter an area to perform work covered by a RWP, the person should read each requirement of the applicable permit and ensure they are meeting those requirements. Attention must be paid to each requirement, and a check must be made to ensure each requirement is met prior to entering the area and performing work. Included in these requirements are requirements for appropriate dosimetry and personal protective equipment. By paying attention to these requirements, one may be reminded that the dosimetry they are wearing is not the dosimetry required by the RWP and that another type of dosimetry must be obtained prior to entering the work area.

DISCUSSION OF ACTIVITIES- An employee alarmed the personnel contamination monitor (PCM) 2 when exiting a Boundary Control Station after entry and performing work. The employee stated that a nuclear medical procedure had been performed on September 15, 1999, and the Dosimetry Office had pulled the blue thermoluminescent dosimeter (TLD) and issued a personal nuclear accident dosimeter (PNAD). Based on the survey results, the PCM-2 alarm is attributed to medical isotope administered. The employee stated that they forgot not having a blue TLD and signed in on a RWP that required it. A personal contamination survey was conducted and detected no external contamination. The PNAD was pulled for processing and no detectable exposure was identified. An investigation of the areas entered and work performed by the operator was made to reconstruct dose rates. No areas were identified with potential for contamination.

ANALYSIS- On Tuesday, 09/14/99, the operator notified the Dosimetry Office of an upcoming medical procedure involving the use of radioisotopes. The Dosimetry Office obtained the operator's blue TLD and told the operator to not enter contamination areas until the following Monday. The blue TLD is external dosimetry assigned to a particular individual and is read at least quarterly. On Wednesday, 09/15/99 the operator participated in the medical procedure cited earlier in this report. On Thursday morning, 09/16/99, the operator reported to The Dosimetry Office and received a green PNAD. The green PNAD provides the same information as a blue TLD and is issued to personnel who enter an area defined in safety basis documents where effects of a nuclear accident are projected. The green PNADS are only read in the event of an accident. On Friday, 09/17/99, the operator entered a Vault on RWP 980390 for light work activities. The RWP required a blue TLD to be worn on the chest inside the contamination area. The operator was wearing the green PNAD inside the contamination area. The operator had forgotten not having the blue TLD on and did not meet the RWP requirement for wearing it inside the contamination area. The employee was assisting an operator whose partner had taken leave and gone home. They were staging drums just inside the contamination area (three or four container rows deep). The operator spent approximately five minutes inside the contamination area. The investigation revealed the responsible supervisor had instructed the operator to work

outside the contamination area. Because the employee had no history of noncompliance with RWP requirements, had entered many areas on various RWPs in the past, and had received appropriate radiation worker training, the root cause was determined to be an inattention to detail by the employee in meeting the RWP requirements. Direct cause was attributed to not following RWP requirements and lack of adherence to verbal instructions from The Dosimetry Office and the operator's supervisor.

RECOMMENDED ACTIONS- The operator's supervisor and the Project Disposition and Storage Operations Manager discussed the incident with the operator and emphasized the need for attention to detail in meeting RWP requirements.

PRIORITY DESCRIPTOR Blue/Information

FUNCTIONAL CATEGORY(S) (DOE) Radiological Protection

BJC TREND CODE(S) (USER-DEFINED) RP - Radiological Protection

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KEYWORDS Radiation Work Permit, RWP, dosimetry, personal nuclear accident dosimeter, PNAD, thermoluminescent dosimeter, TLD

REFERENCES Occurrence Report Number ORO-BJC-K25WASTMAN-1999-0017

HAZARDS Personnel Protection; Radiological

WORK ACTIVITY Radiological; Work Control

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.