

procedures, the job order may be used for staging of the waste only. Activities other than staging must be described in a work package. A procedure describing requirements for preparing for an operation instructs the supervisor to analyze the activity to be performed and determine the risks or potential for adverse reactions on personnel and to consult with health and safety professionals as needed. The supervisor considered the activity routine and did not contact health and safety professionals for designation of PPE for the addition of solidifying agents to free liquids discovered in the containers of sludge waste. The same procedure requires the supervisor to prepare a work package for activities (addition of solidifying agent) beyond staging containers for sampling. No work package was prepared per procedure. Procedures controlling work instruction/work package development require a review by appropriate health and safety professionals to designate PPE. An operator contacted the supervisor during this activity and told the supervisor strong odors had been detected upon opening drums and asked if a respirator was needed. The supervisor told the operator that the job order did not require a respirator, and there was no need to wear one.

The direct cause of this event was preparation needed improvement. Preparation for this activity should have included a review by health and safety professionals to designate appropriate PPE. Industrial hygiene personnel contacted after the event reported that air purifying respirators would have been designated for operations personnel adding solidifying agents to free liquids to protect them from potential exposure to organic vapors. The supervisor considered the activity routine and did not ensure appropriate reviews by health and safety personnel.

The root cause was procedures were not followed. If procedures describing project operations had been followed, health and safety professionals, not the immediate supervisor, would have reviewed the operation and designated appropriate PPE. By not following procedure requirements, workers were at risk because they were not wearing appropriate PPE for the activity being performed. A critique was conducted on 01/29/99 for this occurrence.

RESOLUTION/RECOMMENDED ACTIONS: The following actions were taken to minimize the chances for recurrence of the incident discussed in this report:

- * A coaching and counseling session was conducted between the responsible manager and responsible person(s) to identify and discuss problems associated with this occurrence. The responsible person(s) committed to correcting the problem.

- * An all-hands meeting was conducted by the Project Operations Manager that emphasized the need to comply with procedures, pre-job planning, appropriate discipline reviews, and the need for integrating hazard controls in work packages.

- * A training program was developed for work planners and designated as required training for supervisors.

- * Supervisors were trained to the program.

- * Work control measures have been improved through revision of work planning and controlling procedures and clearly defined work package requirements.

* Work package approval requirements include an approval by supervisors' management.

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NAME OF AUTHORIZED DERIVATIVE CLASSIFIER: John F. Preston

NAME OF REVIEWING OFFICIAL: John F. Preston

PRIORITY DESCRIPTOR: Yellow/Caution

KEYWORDS: Sludge, PPE, Vapors, Drum Inspection, Liquid Sorbent

REFERENCES: Occurrence Report: ORO--BJC-K25WASTMAN-1999-0002; Critique Summary CR-99-003

"Sludge Drum Visual Inspection and Addition of Liquid Sorbent"

DOE FUNCTIONAL CATEGORIES: Occupational Safety and Health; Radiological Protection; Environmental Restoration and Waste Management

BJC FUNCTIONAL CATEGORIES: SH - Occupational Safety & Health; RP -Radiological Protection; PC - Planning & Controls; WM - Waste Management

HAZARDS: Hazardous Material; Personnel Protection; Radiological

WORK ACTIVITY: Material/Material Handling; Material Storage; 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.