

Date: Fri, 24 Sep 1999 08:31:24 -0400

From: "Eubanks, Cynthia M. (EUB) " <eub@bechteljacobs.org>

Subject: Yellow Alert: Near-Miss- Worker Grazed By Falling Object

The following Bechtel Jacobs Company, LLC Lesson Learned Yellow Alert was generated as the result of a recent incident at the Portsmouth Project This lesson emphasizes the importance of implementation of ISMS principles. If you have any questions, please contact Joanne Schutt at (423)483-0554, e-mail=s6u@ornl.gov .

Cynthia M. Eubanks

Performance/Quality Assurance Org.

Bechtel Jacobs Company, LLC

Phone: (423)576-7763

<><><><><><><><><><>

TITLE: Near-Miss - Worker Grazed by Falling Object During a Building Dismantling Task

IDENTIFIER: Y-1999-OR-BJCPORTS-0901 DATE: September 17, 1999

LESSON LEARNED STATEMENT: Dismantling tasks involving the disassembly of elevated items always presents hazards to workers, with the potential of injury from falling objects (either tools or the structure being dismantled). Each item must be evaluated individually. Problems encountered during disassembly must be scrutinized for new hazards created by the problem before continuing the work. Workers and supervisors must be vigilant during these tasks and must communicate any difficulty encountered to effect modifications to the work plan if deemed necessary. Mitigating hazards and ensuring strict adherence to the Work Plan is imperative. Failure to follow these principles can result in personal injury.

DISCUSSION OF ACTIVITIES: In the process of dismantling the second of two prefabricated metal buildings, workers had unbolted all roof panels from an angle iron which was bolted to the side walls. Two workers, on an aerial lift platform, lifted a single roof panel (approximately 50-60 lbs.), when unexpectedly the side walls spread causing the remaining roof panels (5 out of 12 total) to fall. A worker, who was removing roof panel connecting clips on the floor, was grazed by the falling roof panel which hung up on a ladder the worker had been using. The worker was not injured, but ripped his tyvek coverall on the roof panel as he exited from under the panel.

The workers had just finished dismantling a larger building structure of the same type before commencing with dismantling this structure. The Safety and Health Representative and the foreman had briefed the work crew on how to dismantle building structures and the safety hazards of the task prior to the dismantling of the first larger building. During the dismantling of the first building structure, the workers unbolted and removed each roof and wall panel one panel at a time. During the dismantling of the second smaller building, the work crew decided to remove all the nuts from the bolts prior to removal of any panel. The bolts were left in place. Neither the Safety and Health Representative nor the foreman were informed of this change in procedure and were conducting other site duties at the time of

the near-miss event.

ANALYSIS: A joint investigation of the event was conducted. A Safety Briefing discussing the event and its causes and corrective actions was conducted. A stand-down for safety was conducted to discuss the Integrated Safety Management System, Zero Accidents, this event, and the importance of safety to the success of the project with all personnel involved. Clear instructions were given to workers on mitigating and controlling overhead hazards, safe cleared distances, and not standing under suspended loads.

The root cause of the event was determined to be a Management Problem, Inadequate Supervision (Inadequate Supervision, Work Organization/Planning Deficiency) because of the inadequate job preparation, planning, and supervision evidenced during the performance of this work.

The direct cause was the workers' decision to remove all the nuts from the bolts connecting the roof and wall panels without discussing the procedural change with the foreman or the Safety and Health Representative. By removing all of the nuts from the bolts, the workers created an unstable structure and essentially a suspended load. Additionally, the worker standing under the unstable roof exhibited the failure to recognize an overhead hazard and unsafe cleared distance. None of the other workers involved in the dismantling task recognized the overhead hazard or safe cleared distance either.

RECOMMENDED ACTIONS:

Require subcontractor to fully implement the Integrated Safety Management System concept into their work.

Increase oversight of the project by utilizing an additional person and closely monitor the work activities of this contractor throughout the remainder of the contract by performing daily safety inspections of the work.

Develop a Lessons Learned to emphasize the importance of on-the-job supervision and to use in contractor safety training to reiterate mitigating and controlling overhead hazards, safe cleared distances, and not standing under suspended loads.

PRIORITY DESCRIPTOR: Yellow/Caution

FUNCTIONAL CATEGORY(S) (DOE): Occupational Safety & Health, Human Factors,

FUNCTIONAL CATEGORY(S) : SH - Occupational Safety & Health, PC - Planning & Controls, HF - Human Factors

ORIGINATOR: Bechtel Jacobs Company, LLC, Tom Marshall, (740) 897-3873, Portsmouth Project

VALIDATOR: Clarence Sheward

CONTACT: Joanne E. Schutt, (423) 574-1248

NAME OF AUTHORIZED DERIVATIVE CLASSIFIER: Lee Faulk

NAME OF REVIEWING OFFICIAL: J. F. Preston

KEYWORDS: dismantling, near-miss, prefabricated building

REFERENCES: Occurrence Report: ORO--BJC-PORTENVRES-1999-0005

HAZARDS: Elevated Work; Mechanical/Structural

WORK ACTIVITY: Other; Work Control

FOLLOW-UP ACTION: Information in this report is accurate to the best of our knowledge. As a 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.