

Date: Thu, 26 Mar 1998 09:05:18 -0500
From: eub@ornl.gov (Cynthia M. Eubanks)
Subject: LMES LL: Backhoe Damages ETTP Portal 2 Entrance Roof

The following Lockheed Martin Energy Systems, Inc. Lessons Learned communicates an incident that occurred recently at the East Tennessee Technology Park. Please disseminate as applicable. If you have any questions, please contact Joanne Schutt (s6u@ornl.gov) at (423)574-1248.

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Mgr., Issues Mgt. Support Staff

TITLE: Backhoe Damages ETTP Portal 2 Entrance Roof

IDENTIFIER: L-1998-OR-LMESETTP-0202

DATE: February 24, 1998

LESSONS LEARNED STATEMENT: When driving heavy equipment, operators need to consider vertical and horizontal clearances before passing under overhead structures. Failure to do so could cause property damage.

DISCUSSION: A backhoe was being used to remove snow from the road at the entrance to Portal 2 at ETTP, when the backhoe's bucket arm struck the portal's roof damaging it. No one was injured.

The backhoe operator had lowered the bucket arm in an effort to have it pass under the portal roof, but did not place it low enough to avoid contacting the roof as it passed through the portal.

The entrance road under the Portal 2 roof is sloped causing clearances between the road and the roof to vary.

Aluminum used to cover Portal 2 was damaged by the backhoe. A representative from industrial safety inspected the Portal 2 roof and determined that it posed no hazard to personnel or equipment entering or exiting the portal.

A related concern was expressed for clearance under a utility cable at K-731 that scrapes the tops of heavy equipment as they pass under it.

ANALYSIS:

RESOLUTION/RECOMMENDED ACTIONS:

* Issue a lessons learned through the ETTP Lessons Learned Program emphasizing the need to consider vertical and horizontal clearances before passing under overhead structures.

- * During morning safety meetings, heavy equipment operators were briefed on the need to consider clearances prior to passing under overhead structures.
- * Post clearance dimensions at Portal 2 and determine the need for such postings at other overhead structures at ETPP.
- * Estimate repair costs to the structure at Portal 2 for use in determining if property damage should be reported as an occurrence.
- * Contacted security and let them know what happened so guards stationed at portals are aware of clearance problems associated with entering and exiting the park.
- * Evaluated the condition of the roof at Portal 2 and determined it posed no health or safety concern to persons entering the park.
- * Traffic safety committee will evaluate the clearances associated with the utility cable at K-731 and make recommendations.

ORIGINATOR: Lockheed Martin Energy Systems; E. J. Lavender, 423/576-4620 East Tennessee Technology Park Operations

VALIDATOR: William G. Woods, 423/574-3603 East Tennessee Technology Park Maintenance

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NAME OF AUTHORIZED DERIVATIVE CLASSIFIER: C. J. Schermerhorn

NAME OF REVIEWING OFFICIAL: A. S. Quist

PRIORITY DESCRIPTOR: Blue/Information

DOE FUNCTIONAL CATEGORY: Transportation, Other

LMES FUNCTIONAL CATEGORY: TR - Transportation Safety, EC - Engineering and Construction

KEYWORDS: backhoe, roof, damage, heavy equipment

REFERENCES: Critique CR-98-006 "Backhoe Damages ETPP Portal 2 Entrance Roof" I Care We Care Issue: IC-98-51

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.

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