

Date: Thu, 29 Jan 1998 15:40:28 -0700
From: Meredith Brown <racer@lanl.gov>
Subject: Yellow Alert: Unrestrained Cargo Damage

Title: YELLOW - **Unrestrained Drums Shatter Back Window**

Identifier: INEEL Lessons Learned #97405
Date: December 9, 1997

Lessons Learned Statement: All cargo should be restrained by securing it to the vehicle (or placing it in an enclosed area, such as the trunk of a vehicle). No items should be placed in the back window of passenger vehicles or above the levels of the seatbacks.

Executive Summary: The following Idaho National Engineering and Environmental Laboratory (INEEL) Lockheed Martin Idaho Technologies Yellow Alert Lessons Learned is being issued to inform you unrestrained cargo in the bed of a pickup shattered the back window of the pickup cab when the driver came to a stop.

Discussion of Activities: Three empty 71-gallon steel drums were placed in the bed of a government pickup truck to be transported to another onsite facility. The drums were bound to each other with duct tape but were not secured to the bed of the truck. When the driver of the vehicle braked to a stop at a stop sign, the drums slid forward in the bed, tipped, and shattered the rear window of the cab.

Other than the broken rear window, there was no other damage to the vehicle or the drums. The driver and passenger were unharmed.

Analysis: There are no formal requirements to restrain incidental cargo in vehicle. However, unrestrained cargo has the potential energy to cause serious harm, both to the vehicle and the occupants. Any object (whether a box of tissues, a windshield scraper, a speaker, or a book) placed in the back window of a vehicle gathers enough potential energy at high speeds to seriously injure vehicle occupants. Unrestrained cargo in the open bed of a pickup truck may pose a potential danger to the occupants and to other vehicles.

Recommended Actions:

1. Drivers transporting cargo should restrain the cargo by securing it to the vehicle or placing it in an enclosed area (such as the trunk of a vehicle).
2. To prevent items from becoming a potentially hazardous missile, no items should be placed above the level of the seatbacks or in the back window of passenger vehicles.
3. Unrestrained objects should be placed close to the floor or the bed of the vehicle. Tall objects should be laid on their side if at all possible.

Priority Descriptor: YELLOW/Caution

Functional Categories (DOE): Occupational Safety and Health, Training and

Qualification Functional Categories (User-Defined): Occupational Safety and Health,
Training/Qualification/Education

Originator: Lockheed Martin Idaho Technologies Company Test Reactor Area, Nuclear Fuel
Operations

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Key Word(s): cargo, restrained, secured

References: ORPS Report ID-LITC-PBF-1997-0005

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 Terry Pierce at (208) 526-4288 (or by electronic mail at txp@inel.gov) or the INEEL Lessons Learned Program Office at (208) 526-1530 (e-mail at mae@inel.gov or lmitll@inel.gov) of any action taken as a result of this report or of any technical inaccuracies you find. Your feedback is important and appreciated.