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From: Meredith Brown racer@lanl.gov
Subject: Blue Alert: Halon System Activation

TITLE: Manual Activation of Halon Fire Protection System

IDENTIFIER: 98-0483-SNLCA-ESAH-ROC

DATE: September 14, 1998

LESSONS LEARNED STATEMENT: General awareness or training on fire protection system operation is effective in communicating to the employee the use, operation and activation for these systems.

DISCUSSION OF ACTIVITIES: Personnel smelled a burnt odor but could not determine the exact source. A decision was immediately made to activate the fire evacuation systems. Upon activating the nearest fire alarm station, personnel did not immediately hear alarms or bells. As a result, personnel manually activated a second system, a halon fire suppression system. The halon fire protection system discharged and all personnel were evacuated. There were no injuries or damage to equipment. The source of the burnt odor was an overheated computer monitor.

ANALYSIS: Personnel manually activated the halon fire suppression system because they assumed there was a malfunction with the first fire alarm station. Personnel were unaware that the fire alarm system has a delay. There was no malfunction. The alarm system delay is caused by the pre-alarm system that is intended to reduce false alarms. The delay in this case was about ten seconds.

An informal interview determined that some personnel were aware of alarm sounding delays, and some that were not. Those that were aware can be attributed to the new hire "hands-on" training conducted by Fire Protection personnel. As a result, it was determined that awareness of the various fire protection systems can be effective, and that awareness training should include the general site population. This will help preclude the accidental manual activation of halon fire protection systems.

RECOMMENDED ACTIONS: To continue or expand the education awareness programs for the general site population regarding fire protection systems. Provide specific training for personnel who work in areas protected by halon systems. Be aware of the various fire protection systems and the alarms sounding characteristics of those systems. Provide clear visible labeling of manual halon activation systems.

ESTIMATED ACTIONS: n/a

ESTIMATED SAVING/COST AVOIDANCE: Under the Montreal Protocol, an international agreement intended to protect the earth's ozone layer, halon (a CFC-based chemical) is being phased out. As such, no new halon systems are being built. Recharging halon systems, due to actual or accidental discharge, will be difficult unless there is an existing inventory of halon. The inability to recharge a halon system could make the halon fire protection system inoperable, and

force a facility to limit operations or require mitigated fire protection measures until alternate non-halon systems are put into service. Preventing unnecessary halon discharges will extend savings and prevent unnecessary or untimely replacement costs.

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PRIORITY DESCRIPTOR: Blue DOE FUNCTIONAL CATEGORY: Fire Protection

USER-DEFINED FUNCTIONAL CATEGORY: n/a KEYWORDS: Halon, Evacuation, Alarms and Training

REFERENCES: n/a