

DOE's Corporate Operating Experience Program

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OFFICE OF ES&H REPORTING AND ANALYSIS (AU-23)

DOE's Corporate Operating Experience Program



The Operating Experience (OE) Program is maintained by the DOE OE Committee (OEC), consisting of OE Program Coordinators, OEC members (feds and contractors from across the Complex), and external members.

The OEC has bi-monthly webinars and an annual in-person workshop where information is shared by OE members from across the Complex.

DOE and external events are discussed at meetings and often lead into Lessons Learned reports and/or OE documents/summaries.

Governing Requirements Documents

- DOE O 210.2A: *DOE Corporate Operating Experience Program*



OE Program Main Components



- OE Documents (see DOE O 210.2A, Appendix A)
 - Levels 1-3 <https://www.energy.gov/ehss/operating-experience-level-1-2-and-3-documents>
 - Summaries <https://www.energy.gov/ehss/listings/operating-experience-summaries>
 - Suspect/Counterfeit and Defective Items Data Collection Sheets (password required)
<https://www.energy.gov/ehss/policy-guidance-reports/databases/suspectcounterfeit-and-defective-items>
- Corporate Lessons Learned Program and Database (password required)
<https://www.energy.gov/ehss/policy-guidance-reports/databases/lessons-learned-database>
 - Lessons Learned Reports
- OE Committee <https://www.energy.gov/ehss/corporate-operating-experience-program>
 - Bi-monthly webinars
 - Site and external OE discussions
 - External OE presentations
 - Recent OE Documents and Upcoming OE Products
 - AU-23 update on ORPS, lessons learned



Operating Experience Level 1-3 Documents



OE Level 1 Documents inform the DOE complex of the **most significant** events or trends that concern DOE management.

OE Level 2 Documents inform the DOE complex (or affected sites) of **potentially significant** safety issues.

OE Level 3 Documents inform the DOE complex when an **event or a trend warrants management attention**. Highlights important environment, safety, and health issues for senior management's attention and potential action.




Current OE-Level 3 Documents




- Current OE Levels 3 documents:
 - OE-3 2018-06: Unintentional Discharge of Firearms
 - OE-3 2018-05: Gaskets for High-Density Polyethylene Flanges
 - OE-3 2018-04: Pipe Over-Pack Container (POC) Fire Test Results
 - OE-3 2018-03: Engineered Sling Protection
 - OE-3 2018-02: Hard Drives Soldered to Logic Boards Pose Potential Issues at Computer End-of-Life
 - OE-3 2018-01: DOE Occupational Radiation Exposures for 2016





Office of Environment, Health, Safety and Security

Operating Experience Level 3



OE-3: 2018-06

August 2018

Unintentional Discharge of Firearms

PURPOSE

This Operating Experience Level 3 (OE-3) document provides information about unintentional discharges of firearms that have occurred at Department of Energy (DOE) facilities.

Unintentional discharges of firearms can be classified as accidental, wherein the weapon malfunctions and discharges, or negligent, wherein the discharge is caused by operator error. Accidental discharges are avoided by firearms maintenance and inspections. Negligent discharges are prevented by strict adherence to gun safety rules.

BACKGROUND

In October 2017, there were two unintentional discharges of firearms reported into the Occurrence Reporting and Processing System (ORPS). A review of the ORPS database revealed seven unintentional discharges of firearms since 2012, and 15 since 2007, indicating that this is a consistently repeated occurrence at the DOE, with an average of one to three ORPS-reported occurrences per year.

On October 16, 2017, a Security Police Officer (SPO) was involved in a training exercise, at the Savannah River Site (SRS), where each participant had only two rounds in their weapon's chamber. After the string of fire and the buzzer had sounded, the SPO, who had not fired both rounds, raised their hand to indicate that they needed help. The Firearms Instructor moved to their location to ask what the issue was. The SPO responded by saying "it," then placing their finger on the trigger and pulling it. Pulling the trigger caused one round to discharge, which impacted

10 feet downrange of the firing line. The rifle was inspected, test-fired, and determined to be in working order with no issues identified. (ORPS Report EM-SR-CENT-SECFOR-2017-0002)

On October 6, 2017, during an SPO Live Fire Shoot House (LFSH) training exercise at the Y-12 National Security Complex, a rifle discharge occurred while the SPO was in the process of lowering his rifle, placing it on safe, and transitioning to a handgun. The round discharged into the floor toward the target of the LFSH. No injuries were sustained. No issues were noted with the rifle upon inspection. (ORPS Report NA-NPO-CNS-Y12NSC-2017-0044)

On September 8, 2016, an SRS SPO was participating in weapons qualification at the Advanced Tactical Training Academy when an unauthorized discharge occurred while the SPO was transitioning from a rifle to a handgun. The weapon discharged directly forward and toward the ground. No injuries occurred. (ORPS Report EM-SR-CENT-SECFOR-2016-0002)

ANALYSIS AND OBSERVATIONS

These events were reviewed to determine common factors and identify lessons learned. The following observations are noted.

- The individuals who were involved in these events were all SPOs.
- Depression of the trigger was the identified cause in the October 16, 2017 incident. There was no cause identified in either the October 6, 2017, or September 8, 2016, incidents.
- The incidents occurred during training exercises. Some other events, not reported in



Operating Experience Summaries



OE Summaries inform the DOE complex of DOE or external operating experience from which sites could benefit. Consists of a compilation of informative operating experience-based articles.



Current Operating Experience Summaries



- Current OE Summary documents:
 - 2018-01: The Importance of Quality Assurance during Work Planning for Preventing Accidents
 - 2018-02: Hurricane Preparedness
 - 2018-03: Mishandling Radioactive Sources and Samples



OE Documents and Summaries – Use and Value



How are OE Documents and Summaries used?

- Shared across the Complex
- Trends in ORPS are identified by AU-23 and recognized throughout the Complex through the OE-3 and OES products
- As a way to exchange lessons-learned information between DOE facilities
 - Posted on DOE's Corporate Lessons Learned Database, DOE's OE Wiki, EHSS OE website
- **Example OE-3 – Moving HVAC Parts Pose Amputation Risk**
<https://www.energy.gov/sites/prod/files/2017/07/f35/OE-3-2017-02.pdf>
- **Example OE-3 Safety Concern: Roll-up Doors**
http://energy.gov/sites/prod/files/2014/08/f18/OE-3_2014-03.pdf
- **Example OE-3 – Frequent Hazardous Electrical Energy Related Events**
https://www.energy.gov/sites/prod/files/2016/09/f33/OE-3_2016-06.pdf
- **Example OES – Situational Awareness**
http://energy.gov/sites/prod/files/2016/06/f32/OES_2016-02.pdf
- **Example OES – Arc Flash Accident at Los Alamos National Laboratories**
https://www.energy.gov/sites/prod/files/2016/01/f28/OES_2016-01.pdf



Lessons Learned Program (Part of OE)



The Lessons Learned Program was developed to facilitate continuous and systematic information sharing and learning across the DOE complex. Information is shared via the DOE Corporate Lessons Learned Database.

Governing Requirements Documents

- DOE O 210.2A: *DOE Corporate Operating Experience Program*
- DOE-STD-7501: *The DOE Corporate Lessons Learned Program*



OFFICE OF ENVIRONMENT, HEALTH, SAFETY AND SECURITY

Lessons Learned Database

- Home
- Defense Nuclear Security Lessons Learned Center
- Login
- Establish Profile
- Search Database
- About This Site
- Submit Lesson
- Change Password
- Contact Us
- Help
- Gatekeeper
- Related Links
- Corporate Operating Experience Review Program
- Corporate Safety Analysis



Office of Environment, Health, Safety and Security

LESSONS LEARNED DATABASE

Text size: Smaller - Normal - Larger - Largest

Search Results

Be Alert to Unmarked Pinch Points

Lesson ID: LL-2016-LLFL-8 (Source: User Submitted)

Originating Organization or Contracting Company: Lawrence Livermore National Security, LLC

Date: 3/21/2016

Contact: Jeff Hanning, 925-424-5393, hanning1@llnl.gov

Classification: N/A Reviewer: Constance E. De Orange

Statement: An unmarked and unexpected pinch point gave the incorrect impression that the end of a freight elevator's bump railing was a safe location to place a hand. Unfortunately, it was not and an employee sustained a laceration when the inner cage door was lowered.

Discussion: An employee rested a hand over the end of a bump railing that runs almost the entire length of a freight elevator. When the inner cage door was lowered, a bracket attached to the inside of the outer cage door struck and injured his hand. A co-worker immediately transported the injured employee to LLNL Health Services for evaluation and treatment.

This unmarked pinch point is an as-received condition that exists at both ends of this railing. Unmarked pinch points on this and other elevators have been identified and are being appropriately marked. Additional actions, including physical modifications to remove the pinch points, are being taken.

Analysis: -A pinch point hazard exists whenever one object is in motion and in proximity to a stationary object or another moving object. This motion may result in:
A) the two objects closing down on a body part or a third object and pinching it (e.g., a door or drawer opening or closing), or
B) something getting caught on a moving object and getting pulled into the gap between the two objects (e.g., a body part or clothing catches on a moving object and is pulled into the gap between the two objects).

-Some pinch points are not as apparent as others and may go unnoticed. This may result in a pinch point hazard remaining unmarked.

-The lack of markings can create the impression that a hazard does not exist.

-A pinch point may go unnoticed for one or more reasons.
A) The person looking at the hardware does not account for all features. In this example, the cage door is most often viewed in its fully-open or fully-closed positions. This can leave a person with the impression that the gap of concern is the one between the door frame and the end of the railing instead of the protruding bracket and the end of the railing.
B) Hardware geometry or location can cause a person to perceive the gap as "big enough". A cursory look at the bracket's location relative to the railing can leave a person with the impression that the bracket is both past the end of the railing and inboard of it and thus there is no pinch point hazard at the end of the railing.

Recommended Action(s): Consider the possibility that a pinch point hazard exists whenever one object is in motion and in proximity to a stationary or moving object.

While the size of the body part exposed to a pinch point plays a role in determining whether an injury will occur (i.e., a finger, hand or foot will fit into pinch points that an arm or leg will not), do not rely upon body part size as a safeguard.

If you perceive that an unmarked pinch point hazard exists, stop work, take appropriate action to prevent the pinch point from causing injury or damage, and notify the Facility Point of Contact (the FPDC's name and phone are posted in that building).

Savings: None.

Keywords: BRACKET, DOOR, ELEVATOR, HAND, PINCH POINT, RAILING.

Hazard(s): Facilities & Equipment, Personal Injury / Exposure - Mechanical Injury (Striking / Crushing)

ISM Code(s): Analyze Hazards, Develop / Implement Controls

Work Function(s): Occupational Safety & Health - General, Safety Design

Lessons Learned Reports- Link to Lower Level Reporting



➤ How are Lessons Learned used?

- The database is used to collect and share lessons learned and best practices pertaining to all DOE activities
- Many of the lessons learned are generated from ORPS reports and trends identified in ORPS
- Lessons Learned are re-posted in RL's OPEXShare available to only DOE fed/contractor account holders

➤ Link to lower level reporting

- Lessons Learned reference the ORPS report associated to the same event
- AU-23 intends to link multiple AU Databases in the near future



Suspect/Counterfeit or Defective Items Data Collection Sheets (DCS)



Suspect/Counterfeit or Defective Items (S/CI-DI) Data Collection Sheets (DCS) provide information on S/CI-DI with potential impact to DOE operations.



Office of Environment, Health, Safety and Security

Data Collection Sheet



Selected Lots of 3M™ Versaflo™ TR-600 Series Cartridges (Recall Alert)

Tracking Number	Source of Issue	Source Tracking Number
DCS 1896	3M	N/A 09-02-2016

The Office of Environmental Health and Safety Reporting & Analysis is providing this Data Collection Sheet to inform the DOE complex that 3M has issued the following Recall Notice. The DOE complex should stop using this product unless otherwise instructed by the manufacturer.

Product Name: Selected Lots of 3M™ Versaflo™ TR-600 Series Cartridges.
The products under recall were produced between May 30 to August 4, 2016.

Product	Affected Lots	3M ID	UPC Number
TR-6510N Organic Vapor/HEPA Cartridge	0616	70-0716-1830-3	50051131373612
TR-6530N Organic Vapor/Acid Gas/HEPA Cartridge	0616 0716 0816	70-0716-1831-1	50051131373629
TR-6820N HEPA/HF/Nuisance OV	0716	70-0716-1829-5	50051131373605

*One TR-6530N cartridge is included in TR-600-HIK kits – please review cartridge in kits.



Operating Experience Committee



Operating Experience Committee (OEC): A committee that performs in-depth reviews of DOE and external operating experience to determine its relevance to DOE and shares both internal and external lessons learned.

The OEC is led by AU-23 and composed of DOE OE Program Coordinators, DOE employees, DOE contractors, and external members. The OEC holds bi-monthly webinars and annual workshops.

➤ How is it used?

- The focus is on sharing lessons learned and best practices related to operating experience both internal and external to DOE
- ORPS reports are discussed on bi-monthly webinars

➤ Value of lower level reporting

- All ORPS reports discussed are easily accessible by the OEC for further review
- Awareness of issues by the OEC due to access to ORPS and ORPS related products
- Fosters communication amongst the OEC and allows for other perspectives on ORPS trends to be raised



For Information or Any Additional Questions



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