



DOE Corporate Operating Experience Program

presented to:
Environmental Radiation Assistance Directory Webinar
January 16, 2013

by:
Ashley Ruocco
Office of Analysis
Office of Health, Safety and Security





Goals of this Presentation



- 1) To provide an overview of DOE'S Corporate Operating Experience Program
 - Operating Experience Program Documents
 - Operating Experience Committee
 - Corporate Lessons Learned Program and Database
 - Operating Experience resources and communication
- 2) To encourage development and sharing of Operating Experience
- 3) To discuss Office of Analysis (HS-24) initiatives



Corporate Operating Experience Program



DOE O 210.2A, *DOE Corporate Operating Experience Program*

- PURPOSE-

- To institute a Department of Energy (DOE) wide program for the management of operating experience complex-wide to prevent adverse operating incidents and facilitate the sharing of good work practices among DOE sites, while enabling tailored local operating experience programs based on the nature of work, hazards, and organizational complexities. Operating experiences can be found in all disciplines.
- To provide the systematic review, identification, collection, screening, evaluation, and dissemination of operating experience from U.S. and foreign government agencies and industry, professional societies, trade associations, national academies, universities, and DOE and its contractors.
- To define the DOE Corporate Operating Experience Program so that it can be integrated into major management programs - reinforcing the core functions and guiding principles of DOE's Integrated Safety Management System (ISMS) - and enhance mission accomplishment, quality assurance, safety and reliability.



Corporate Operating Experience Program (cont'd)



Operating Experience (OE) Program Main Components:

- OE Documents (see DOE O 210.2A, Appendix A)
 - Levels 1-3
 - Summaries
 - Suspect /Counterfeit Items Data Collection Sheets
 - Lessons Learned Reports
- OE Committee
 - OE Wiki
 - Recent OE Documents
 - OE Wiki Videos
 - OE Summary Blog
- Corporate Lessons Learned Program and Database



Operating Experience Level 1-3 Documents




- **OE Documents include:** OE Level 1-3 Documents, OE Summaries, S/CI or DI Data Collection Sheets, and Lessons Learned Reports
- **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.




Operating Experience Level 1-3 Documents (cont'd)



- **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.
- Recent OE-3 Documents include:
 - *Importance of Conduct of Operations and Training for Effective Criticality Safety Programs*
 - *Safe Practices for Working with Nanomaterials in Laboratories*

Office of Health, Safety and Security




Operating Experience Level 3

OE-3: 2012-05August 2012

Safety Concern: Occurrences of Crushing Injuries To Operators of Industrial Equipment

PURPOSE

This Operating Experience Level 3 (OE-3) document provides information about a safety concern related to the dangers of crushing injuries faced by workers who operate various types of equipment, including electric carts, skid-steers, and lift equipment (Figure 1).



Skid-Steer

Boom Lift

Electric Cart

On March 14, 2012, at the Portsmouth Gaseous Diffusion Plant, a worker driving an electric cart received significant leg injuries when he turned too close to a building column, trapping his leg between the cart and the column. The driver's compartment in these types of carts is not always compatible with larger-built drivers. These conditions contributed to the driver's inability to maintain his leg inside the cart as it was turning. Subsequent investigation determined that there was no required training for cart operators, cart warning labels were either not posted or were indistinguishable from other labels, and there was no facility traffic control plan or painted lines to establish required cart travel lanes and keep carts away from columns. (EM-PPPO-FBP-FUEF-2012-0002)

On March 8, 2012, at Princeton Plasma Physics Laboratory (PPPL), an equipment operator was pinned between the boom and cab of his John Deere model 250 skid-steer while he and another worker were attempting to install an auger attachment. They had left the engine running, which violated the safety features and allowed the boom and other controls to operate. When the operator reached out of the cab to connect the auger hydraulic hose with the boom, the boom raised and pinned his shoulder between the boom and the cab. His left shoulder blade was fractured and his chest was cut. (SC-PPPO-PPPL-PPPL-2012-0001)

On March 1, 2010, a Bonneville Power Administration heavy equipment operator was killed at White Bluffs Substation when he became trapped between a backhoe attachment and the

BACKGROUND

Recent Department of Energy (DOE) events demonstrate the importance of training workers on the dangers of equipment they operate, reviewing and following manufacturers' instructions regarding safety devices/systems, and maintaining situational awareness while operating electric cart, skid-steer, and lift industrial equipment.



Operating Experience Level 1-3 Documents- HSS Website



The screenshot shows the HSS website interface. At the top, the HSS logo and the text 'The Office of Health, Safety and Security' are displayed. Below this is a navigation bar with links: SEARCH, TOOLS, HOME, ABOUT US, FUNCTIONS, RESOURCES, NEWSFEEDS, VIDEOS, and EVENTS. A left sidebar contains a menu with categories like Environmental Protection, Sustainability Support & Corporate Safety Analysis, and Operating Experience Committee. The main content area is titled 'Operating Experience Level 1, 2, and 3 Documents'. It contains three sections: 'Operating Experience Level 1', 'Operating Experience Level 2', and 'Operating Experience Level 3', each with a brief description of its purpose. At the bottom, there is a list of documents with dates and titles, each followed by a link icon. A box at the bottom right explains the significance of each level: Level 1 documents are issued by the Deputy Secretary for significant safety concerns; Level 2 documents are issued by the Chief of HSS for potential safety issues; and Level 3 documents are issued by HSS for potentially significant environment, safety, and health issues.

Operating Experience Level 1, 2, and 3 Documents

Operating Experience Level 1, 2, and 3 documents communicate required actions, information on safety issues or trends of concern, and lessons learned on operating experience to the DOE Complex to prevent adverse operating incidents and to expand the sharing of good work practices. In addition, Operating Experience Summaries are published to inform the DOE Complex on internal and external operating experience from which sites could benefit, and can be found at the Operating Experience Summaries webpage. All of these documents are part of the overall DOE Corporate Operating Experience Program. The revised directive DOE O 210.3A, DOE Corporate Operating Experience Program, replaces the former Special Operations Reports, Safety Alerts, Safety Bulletins, and Safety Advisories with Operating Experience Level 1, Level 2, and Level 3 documents. The content of the Safety Alert and the Safety Bulletin were merged into the Operating Experience Level 2 document. To access safety alerts, prepared prior to 2009 under the previous Order, go to the Safety Alerts webpage. To access safety bulletins prepared prior to 2012 under the previous Order, go to the Safety Bulletins webpage. To access safety advisories prepared prior to 2011 under the previous Order, go to the Safety Advisories webpage.

Operating Experience Level 1

The purpose of the Operating Experience Level 1 (OE-1) document is to inform the DOE complex of the most significant events or trends of concern to DOE management including assessments and required actions with close-out verification in a formal response. The OE-1 document is issued by the Deputy Secretary.

Operating Experience Level 2

The purpose of the Operating Experience Level 2 (OE-2) document is to inform the DOE complex (or affected sites) of potentially significant safety issues (e.g., Conduct of Operations or Suspect/Counterfeit or Defective Items). The OE-2 document includes a statement of actions required (or recommended for NNSA) and a formal method of feedback. The OE-2 document is issued by the Chief Health, Safety and Security Officer (HSS).

Operating Experience Level 3

The purpose of the Operating Experience Level 3 (OE-3) document is to inform senior HQ and field management when an event(s) or a trend(s) warrants attention by Senior HQ or Field Management, but the issue does not warrant an OE-1 or OE-2 report. The document highlights important environment, safety, and health issues for senior management's attention and potential action. The OE-3 document is issued by the Office of Health, Safety and Security.

Please contact Ms. Ashley Ruocco (Ashley.Ruocco@301-903-7010), Office of Analysis, for additional information regarding the Department's Corporate Operating Experience Program and the Operating Experience documents described and available on this web page.

- OE-3 2012-07: Importance of Conduct of Operations and Training for Effective Criticality Safety Programs [Link](#)
- OE-3 2012-06: Safe Practices for Working with Nanomaterials in Laboratories [Link](#)
- OE-3 2012-05: Safety Concern: Occurrences of Crushing Injuries to Operators of Industrial Equipment [Link](#)
- OE-3 2012-04: OSHA's Revised Hazard Communication Standard [Link](#)
- OE-3 2012-03: Safe Management of Mercury [Link](#)
- OE-3 2012-02: Radiologically Contaminated Respirators [Link](#)
- OE-3 2012-01: Control of Sealed Radioactive Sources [Link](#)
- OE-3 2011-02: SASSI Software Problem [Link](#)
- OE-3 2011-01: Radcalc V4.1 Software Defect [Link](#)

Operating Experience Level 1 documents are issued by the Deputy Secretary to initiate management actions in response to events whose subject matter represents significant Departmental safety concerns.

Operating Experience Level 2 documents are issued by the Chief of HSS to initiate immediate actions and to share information and recommendations on potential safety issues.

Operating Experience Level 3 documents are issued by HSS to provide information to the DOE Complex on events or trends on potentially significant environment, safety, and health issues.

- All OE Level 1-3 Documents are located on the HSS Office of Analysis website at: <http://www.hss.doe.gov/SESA/analysis/oel.html>



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.

Recent OE Summary Articles include:

- Operating Experience from Cerro Grande and Las Conchas Fires Improves Los Alamos National Laboratory Emergency Preparedness and Response to Wildfire Events
- Improper Use of Dewar Carts Results in Serious Hand Injuries
- Strategic Petroleum Reserve Investigation Results — Fatality at the Bryan Mound Site





Operating Experience Summaries- Websites



The Office of Health, Safety and Security



SEARCH TOOLS HOME ABOUT US FUNCTIONS RESOURCES NEWSFEEDS VIDEOS EVENTS

Environmental Protection, Sustainability Support & Corporate Safety Analysis

HS-20 Home
Mission & Functions
Program Contacts
What's New?
Sustainability Support
Environment
Corporate Safety Programs
Analysis
Office of Analysis
Operating Experience Committee
Safety Alerts
Safety Bulletins
Annual Reports
Special Operations Reports
Safety Advisories
Special Reports
Causal Analysis Reviews
Contact Us

Operating Experience Summaries

The Office of Health, Safety and Security (HSS) Office of Analysis publishes the Operating Experience Summary to exchange lessons-learned information between DOE facilities.

We would like to hear from you regarding how we can make our analytical products better and more useful. Please forward any comments to Ashley.Ruocco@hq.doe.gov.

Readers are cautioned that review of the OE Summary should not be a substitute for a thorough review of interim and final Occurrence Reports. Users can now subscribe to the OE Summary e-mail notification feature right here to ensure prompt notification when a new Summary is available for review. To subscribe or unsubscribe to this service, please complete a subscription request.

2012 Operating Experience Summaries
2011 Operating Experience Summaries
2010 Operating Experience Summaries
2009 Operating Experience Summaries
2008 Operating Experience Summaries
2007 Operating Experience Summaries
2006 Operating Experience Summaries
2005 Operating Experience Summaries
2004 Operating Experience Summaries
2003 Operating Experience Summaries
2002 Operating Experience Summaries

To search all Operating Experience Summaries, please use the HSS Search capability above.

This page was last updated on July 16, 2012

All OE Summaries are located on the HSS Office of Analysis website at:

<http://www.hss.doe.gov/SESA/analysis/oel.html>



OPERATING EXPERIENCE SUMMARY OFFICE OF CORPORATE SAFETY ANALYSIS

Home About OES Acronyms and Initialisms Blog Policy External Links

Operating Experience from Cerro Grande and Las Conchas Fires Improves Los Alamos National Laboratory Emergency Preparedness and Response to Wildfire Events

July 30, 2012

OE Summary 2012-03, Article 1

Moderator's Introduction: The following article provides a summary of the lessons learned and key actions from Los Alamos National Laboratory (LANL) as a result of the 2011 Las Conchas Fire in New Mexico. The Las Conchas Fire consumed more than 156,593 acres in just over a month, including a 1-acre spot fire on LANL property. LANL's lessons learned from the Cerro Grande Fire in 2000 were proven to be beneficial during the 2011 Las Conchas Fire.

After reading the article, we encourage you to rate the article in terms of value to you and provide a comment on the article itself and/or identify topics that would be of interest to you for future articles.

We also encourage readers to submit articles of their own for future sharing on the Operating Experience Summary Blog. Please let us know if you have something to share. Thank you!

ORPS Report NA--LASO-LANL-LANL-2011-0002

Lessons Learned

The 2011 Las Conchas Fire reaffirmed the principle that, in order to be effective, emergency management should be regarded as an ongoing activity, not one that occurs only in reaction to an initiating event. Los Alamos National

TEXT SEARCH

EMAIL SUBSCRIPTION

Enter your email address to subscribe to this blog and receive notifications of new posts by email.

Join 83 other followers

RSS FEEDS

[RSS - Posts](#)
[RSS - Comments](#)

ARCHIVES

[July 2012](#)
[April 2012](#)
[March 2012](#)
[December 2011](#)
[November 2011](#)
[October 2011](#)
[September 2011](#)
[August 2011](#)

OE Summaries are also located on the OE Summary Blog:
<http://oesummary.wordpress.com/>




Suspect/Counterfeit or Defective Items Data Collection Sheets



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

Register to review DCS at:

<http://www.hss.doe.gov/sesa/corporatesafety/sci/>

Office of Health, Safety and Security HSS Data Collection Sheet		
Counterfeit Underwriters Laboratories Mark on Compact Fluorescent Lamp		
Tracking Number	Source of Issue	Source Tracking Number
DCS 1743	UL	12PN-49 10-31-12
UL Warns of Counterfeit UL Mark on Compact Fluorescent Lamp (Release 12PN-49)		
Northbrook, IL - October 31, 2012 - UL is notifying consumers and retailers that the Compact Fluorescent Lamp, (CFL), identified below bears a counterfeit UL Mark for the United States. The compact fluorescent lamp has not been evaluated by UL to the appropriate Standards for Safety and it is unknown if this compact fluorescent lamp complies with the UL safety requirements for the United States.		
Name of Product: Supersun Model SPST 13SM		
Identification:		
On the product: The product bears a counterfeit UL Mark and the following:		
		
SELF-BALLASTED LAMP E323089		
Supersun		



Lessons Learned Reports



- **DOE Lessons Learned Reports** provide information on identified program/mission-specific lessons learned across the DOE complex.

OFFICE OF HEALTH, SAFETY AND SECURITY

LESSONS LEARNED DATABASE

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

Text size: Smaller - Normal - Larger - Largest

You are Here: DOE > HSS > CSA > Analysis

Search Results

YELLOW - Vendor Contact with Energized Electrical Wire - Emphasized Second Independent Review of Work Packages

Lesson ID: 2012-SR-SRR-0004 (Source: User Submitted)

Originating Organization or Contracting Company: Savannah River Remediation (SRR)

Date: 11/29/2012

Contact: Savannah River Remediation - Saltstone Operations Manager - Bruce Long (803) 803-208-9551

Classifier: Reviewer:

Statement: Use a second independent review of work packages containing electrical <<lock out>>s to prevent single point approval failures. The Facility's relevant controlled drawings should always be reviewed during the approval process.

In this event a hazardous energy source was not identified during preparation and approval of a work package for vendor use in repairing an air compressor controller. Savannah River Remediation (SRR) has implemented additional controls, above and beyond those required by Site Manual 8Q, Procedure 32, to ensure certain types of lockouts receive a second independent review by a reviewer authorized by SRR. These additional controls were extended to subcontract technical representative (STR) initiated vendor work as one of the corrective actions.

Discussion: On July 24, 2012, an I&M Industrial vendor in the Saltstone Facility at the Savannah River Site (SRS) was working on an air compressor under a Single Point Lockout/Tagout (SPLT). During his troubleshooting activities, he thought he felt a tingling sensation as he brushed up against some wires. He checked for voltage and found none. As troubleshooting continued, utilizing technical assistance, two power sources were identified within the work scope boundary that could have intermittently energized. A review of the DCS historical information the next day confirmed that those sources intermittently were powered during this time frame. Facility immediate actions had all Single Point Lockouts/Tagouts and vendor work placed on hold for Facility Manager approval.

Analysis: The root causes were that programmatic controls were less than adequate (LTA) and the Startup work package was issued without DCS circuits identified. These causes resulted in a hazardous energy source not being identified during preparation and approval of a work package for vendor use in repairing the air compressor controller.

SRR has implemented additional controls, above and beyond those required by Site Manual 8Q, Procedure 32, to ensure certain types of lockouts receive a second independent review by a reviewer authorized by SRR. These

Register to Review
Lessons Learned
Reports at:
<http://www.hss.doe.gov/esa/Analysis/DOELL/index.asp>



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 led by HS-24 and is composed of DOE OE Program Coordinators, DOE employees, DOE contractors, and external members.
- The OEC holds monthly webinars and meets annually.
- Meetings consists of:
 - Site OE Discussions
 - External Organization OE and Lessons Learned Discussion
 - Update on Office of Analysis and Corporate OE Initiatives
 - Review of OE Program Self Assessments



Operating Experience Wiki



- The OE Wiki is available at <http://operatingexperience.doe-hss.wikispaces.net/>. Publicly available.
- Contents –
 - Recent OE Documents
 - OE Wiki Video
 - OEC Monthly Call Documents
 - OEC information on meetings, current events and operating experience
 - Subject-oriented Wiki pages

The screenshot shows the homepage of the Operating Experience Wiki. The header is teal with the DOE logo and the title "Operating Experience". A left sidebar contains navigation links: Wiki Home, Recent Changes, Pages and Files, Members, Manage Wiki, and a search bar. Below these are sections for "EXTERNAL LINKS" (including OE Summary Blog, DOE Lessons Learned, External OE Pages, Highly Reliable Performance Blog, Vehicle Safety Awareness Wiki, Electrical Safety Blog, and Electrical Safety Wiki), "WIKI QUICK LINKS" (Home, Help, What's New, Current Issues Forum), "OPERATING EXPERIENCE COMMITTEE" (OEC Home, OEC Next Call, OEC Last Call, OEC Call Archive), and "ALL PAGES" (Accident Investigations, Communities of Interest, Current Issues Forum, Deepwater Horizon Accident Disclaimer, DNS LLC Videos, External Link Disclaimer, External OE). The main content area has a "home" heading, a welcome message, a paragraph about the DOE HS-24 program, a "Recent Operating Experience (OE) Documents" section with entries for December and September 2012, and an "OE Wiki Video" section featuring a video titled "Learn Sarver Heart Center's Continuous Chest Compression CPR produced by the University of Arizona". The video thumbnail shows a person performing CPR on a mannequin with the text "when you press on the chest that you're squeezing the heart".



Corporate Operating Experience Program and Lessons Learned



DOE O 210.2A, *DOE Corporate Operating Experience Program*

- KEY REQUIREMENTS-
- In order to prevent adverse operating incidents, DOE managers and employees are expected to share and use good practices and lessons learned from operating experience.
 - Departmental Elements must develop and implement an Operating Experience (OE) Program and designate an OE Program Coordinator.
 - Each organization must submit Lessons Learned (LL) from operating experience to the DOE Corporate LL Database when both:
 1. The operating experience has relevance to other DOE sites; and
 2. The information has the potential to help avoid adverse incidents, for performance improvements, or for cost saving.



Corporate Operating Experience Program and Lessons Learned (cont'd)



DOE O 210.2A, *DOE Corporate Operating Experience Program*

- CONTRACTOR REQUIREMENTS DOCUMENT, REQUIREMENTS:
 - *Share contractor-specific lessons learned from operating experience with the DOE complex, through the DOE Corporate Lessons Learned Database, when both (1) the operating experience has relevance to other DOE facilities, sites, or programs; and (2) the information has the potential to help avoid adverse operating incidents, for performance improvements, or for cost savings.*

DOE-STD-7501-99, *The DOE Corporate Lessons Learned Program*

- Establishes the framework for the Lessons Learned program, and provides a description of its elements and the method by which lessons learned are developed, entered and shared.
- Currently under review since the last update to the STD was in 1999.



Overview of the Lessons Learned Database



- The Lessons Learned Database is a web-based tool designed to facilitate information sharing in the form of Lessons Learned Reports.
- Potential subjects for the database are identified by reporting organizations throughout the complex and from HQ, and entered into a Lessons Learned Report form.
- Registration is required to access the Lessons Learned Database.



Lessons Learned Reports



Basic elements in Lessons Learned Reports, include:

1. A clear statement of the lesson.
2. A background summary of how the lesson was learned.
3. Benefits of using the lesson and suggestion on how the lesson may be used in the future.
4. Contact information for additional detail.
5. Key data fields to aid in searching.
6. Priority descriptor that assigns a level of significance to the lesson.
 - **Red/Urgent:** A lesson from an actual event with adverse consequences.
 - **Yellow/Caution:** A lesson from a potential event or condition.
 - **Blue/Information:** A fact or discovery of benefit to others.
 - **Green/Good Work Practice:** A practice promoting or resulting in a positive outcome; a success story.



Lessons Learned Reports



- Once the reports are reviewed and approved, they are:
 - Searchable in the database.
 - Disseminated to registered users via e-mail.
- LL Database log-in:
<http://www.hss.energy.gov/sesa/Analysis/DOEll/index.asp>

Search Database

Search Text:

Lesson ID (LL Identifier):

Date:
From: To:

-- OR --

Start Date: End Date:

☒ Search All Lessons
☐ Restrict Search to Safety & Health
☐ Restrict Search to Project Management

Safety & Health

Project Management

Priority Descriptors:

Work Function:

Hazard:

Keyword:



Continuous Improvement Initiatives Planned for 2013 Informed by Results of Self-Assessment



Office of Analysis Continuous Improvement Initiatives:

- Improve the Corporate Lessons Learned Database, and the quantity and quality of lessons learned submitted and maintained in the database.
- Formally verify existing and identify new OE Program Coordinators; ensure OE Coordinators are fulfilling their responsibilities and implementing OE requirements per DOE O 210.2A.
- Continue to improve the productivity of the OE Committee; the conduct and quality of monthly OE Committee meetings; and the engagement of appropriate site subject matter experts in sharing and discussing operating experience from site, national, and international sources.
- Verify that, as part of self-assessments conducted to evaluate organizational performance in ISM, Line Programs and contractors are including an assessment of the effectiveness of the organization's operating experience program. Utilize the OE Committee in discussing lessons learned and areas needing improvement from these self-assessments.



Continuous Improvement Initiatives Planned for 2013

Informed by Results of Self-Assessment (cont'd)



- Improve the process to evaluate, publish, and disseminate operating experience from external sources (e.g., other Federal agencies; international sources).
- Continually improve performance trending and analysis of information from operating experience; develop more OE documents, to include a greater focus on nuclear safety.

HS-24's Continuous Improvement Request to ERAD:

- Collaborate with HS-24 in identifying OE document topics. We will work with you to produce OE documents.
- Provide Lessons Learned Reports on occurrences and enter into the Lessons Learned Database (within ERAD an emphasis on radiological events should be seen).
- Participate in OEC meetings and provide OE and Lessons Learned and insight to the committee.



Questions/Comments

Ashley Ruocco

Office of Analysis (HS-24)

301-903-7010

ashley.ruocco@hq.doe.gov

OE Documents (HSS) - <http://www.hss.doe.gov/SESA/Analysis/oel.html>

OE Summaries (HSS) - <http://www.hss.doe.gov/sesa/Analysis/oesummary/index.html>

Operating Experience Wiki: <http://operatingexperience.doe-hss.wikispaces.net/>

Operating Experience Summary Blog: <http://oesummary.wordpress.com/>