

Implementation of Operating Experience Program in the Office of Environmental Management – Status Report December 2007

On June 12, 2006, the Department of Energy (DOE) issued DOE O 210.2, *DOE Corporate Operating Experience Program*. The Order requires the establishment of a DOE-wide program for management of operating experience to prevent adverse operating incidents and to expand the sharing of good work practices among DOE sites.

In May 2006 the Office of Environmental Management (EM) went through a reorganization of its Headquarters (HQ) organization. The Office of Safety Management and Operations (EM-60) is responsible for leading the integration and coordination of DOE O 210.2 implementation. The former Chief Operating Officer (EM-3) also established an EM Operations Lessons Learned Program to promote EM complex-wide sharing of operational experience. The following is a brief summary of those activities:

Sharing of Operational Experience in Project Management

A key element of disciplined project management is the use of lessons learned to systematically improve safety, cost-effectiveness, and efficiency. Organizations within EM, as well as other DOE offices, have been using the DOE corporate-level Lessons Learned Database to submit and disseminate lessons learned reports. The EM Office of Acquisition and Project Management (EM-50) coordinates EM utilization of the database.

EM-3 directed the development and implementation of a formalized, EM-specific lessons learned program in 2006 to identify and share operational experiences in managing construction, cleanup, and closure projects throughout the EM complex. That effort established an EM Operations Lessons Learned Program involving Federal Project Directors (FPDs), Field Managers, and EM HQ personnel to ensure that: 1) EM Managers and FPDs are actively engaged in and support the program; 2) lessons learned are presented in an executive-level, prioritized manner; and 3) lessons learned are reported and presented in a consistent, structured format.

Based on the complexity and challenges, ten projects were selected for inclusion in the EM Operations Lessons Learned Program: the Rocky Flats Closure Project, the Hanford River Corridor Cleanup Project, Ohio Closure Projects, Savannah River Construction Projects, the Idaho Sodium-Bearing Waste Treatment Facility, the Hanford Waste Treatment Facility, the Savannah River Salt Waste Processing Facility, the Hanford K-Basin Closure Project, the DUF₆ Conversion Project, and the Oak Ridge Molten Salt Reactor Experiment (MSRE) Project. The program addresses the challenges and experiences gained during applicable critical decision stages (CD-0 to CD-4) for the following focus areas:

- Safety
- Acquisition Strategy and Contract Management

- Regulatory Compliance
- Technology
- Engineering Design and Construction
- Funding and Resources
- Communication

Since the inception of the program, all projects completed lessons learned and presented the results at the EM Monthly Field Managers' Video Teleconference. All presentations are posted on the EM Communications Portal. EM has also share many the lessons learned with external organizations at professional meetings, including sponsoring a special session on Operations Lessons Learned at the 2007 Waste Management Conference.

Safety Incidents Lessons Learned

Each week, EM-60 prepares a "Safety Weekly" for the Assistant Secretary that identifies the number of Occurrence Reporting and Processing System reports at the various sites. The report also selects a few of the more significant occurrences and highlight these to the Assistant Secretary.

EM-60 also prepares a "Monthly Safety Report" for the Assistant Secretary that analyzes the safety performance of all EM sites using the DOE CAIRS database that collects for analysis DOE and contractor reports of injuries, illnesses, and other accidents that occur during DOE operations in accordance with DOE Order 231.1, and includes Total Recordable Case and Days Away, Restricted or on job Transfer information for the most recent month. The EM performance is also compared with DOE-wide safety data and related industry values to determine how EM program contractors fare.

Based on such analysis EM may prepare Safety Alerts. Over the past, EM issued three (3) Safety Alerts that focused on: 1) Forklift Safety, 2) Preventing Contact with Overhead Power Lines, and 3) Preventing Waste Drum and Container Explosions.

Events Analysis

Per section 5.8 of DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, and Section 5.d (3) and e. (3) of DOE O 210.2, *DOE Corporate Operating Experience Program*, EM field sites complete quarterly analyses of occurrences of all significance categories over the previous twelve months. This information is reported to EM HQ which enables EM to analyze events at all its sites and identify common trends that need to be addressed.

Assessment Program

In Fiscal Year 2007 EM-60 completed twenty-five assessments in ten functional areas covering all major EM field sites, while targeting specific facilities for some assessments. These areas were:

- Integrated Assessments;
- Radiation Protection;
- Conduct of Operations and Work Control;
- Readiness Processes;
- ISM Declaration Review;
- Hazardous Energy Control;
- Quality Assurance (QA) Audits of Spent Nuclear Fuel and High-Level Waste Using Office of Civilian Radioactive Waste Management QA Requirements;
- QA Audits of Major New Projects;
- Fall Protection; and
- Criticality Safety.

In addition, EM staff participated in a number of field assessments in specific areas such as worker safety and health, nuclear safety, and fire protection.

Through these activities, EM also has an opportunity to identify common adverse trends and address issues through weekly Field Manager calls, periodic management meetings and other mechanisms.

Accident Investigation

EM maintains an active role in ensuring thorough accident investigations are conducted of significant events. In regards to the recent S-102 spill at the Hanford Tank Farm, EM staff conducted a review, separate from the Type A investigation, concentrating on the conduct of technical work and conduct of operations associated with the event. EM is requiring both the contractor and the field office to address our concerns in addition to the Office of Health, Safety and Security Type A investigation report in the EM approved Corrective Action Plan. EM has shared operating experiences with the DOE complex on this event and investigation results, including a special presentation at the DOE ISM Workshop in November 2007.

EM also directed a Type B investigation into a forklift event at Paducah that caused serious injury to a contractor employee. Because of coordination issues with a non-DOE contractor and external regulators with interests in the report, the investigation report has not yet been issued; however upon issuance it will be distributed as a follow-on resource to our recent EM Forklift Safety Alert.

Compliance with DOE O 210.2

As noted in the transmittal letter, implementation of the DOE OEP that meets the requirements of the order is just now maturing enough at our sites for us to initiate a systematic line oversight approach to evaluate the effectiveness of site implementation. EM has verified that while the order is being implemented by most DOE organizations, improvement is needed to ensure implementation across the complex. Similarly, while the order has been included in the contracts of most of our major facilities, EM needs to

work with all the sites to ensure the order is placed in all contracts and implementation is implemented effectively.