

POLICY ISSUE
(Information)

July 25, 2007

SECY-07-0121

FOR: The Commissioners

FROM: Luis A. Reyes
Executive Director for Operations /RA/

SUBJECT: SEMIANNUAL UPDATE OF THE LESSONS-LEARNED
PROGRAM AND ANNUAL LESSONS-LEARNED PROGRAM
REVIEW

PURPOSE:

The purpose of this paper is to provide the Commission with the semiannual update of the Lessons-Learned Program (LLP) and the annual LLP Review.

BACKGROUND:

On March 31 (ML050690113) and July 22, 2005 (ML051890321), the staff provided memoranda to the Commission on the LLP Development Team's activities and plans. The team leader also briefed the Commission on the project status on November 1, 2005 (ML053130416), as part of the Commission meeting on the implementation of the Davis-Besse Lessons Learned Task Force recommendations. The first semiannual update was provided on February 1, 2006, as SECY-06-0024 (ML060110355), "First Semiannual Update of the Lessons Learned Program," in accordance with Commission direction. The second semiannual update was provided on August 4, 2006, as SECY-06-0175 (ML061950246), "Semiannual Update of the Lessons Learned Program (LLP)." The Lessons-Learned Oversight Board (LLOB) briefed the Commission on the status of the LLP on October 25, 2006 (ML063250494). On February 5, 2007, SECY-07-0027, "Semiannual Update of the Lessons-Learned Program," was issued (ML070180378). This paper provides the semiannual status of the LLP, as well as the annual LLP review.

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DISCUSSION:**Lessons-Learned Oversight Board Activities**

In accordance with Management Directive 6.8, "Lessons-Learned Program," the Board provides oversight to the LLP and performs independent review and approval of proposed corrective action plans and their eventual closeout. The Board is composed of senior managers nominated by Office Directors and Regional Administrators and appointed by the Executive Director for Operations (EDO) in a memorandum dated March 22, 2007 (ML070800169).

The Board met on the following dates to discuss recommendations from various internal and external reports: September 12, 2006 (ML062570300), November 6, 2006 (ML070160098), January 25, 2007 (ML070440194), March 28, 2007 (ML070990252), May 17, 2007 (ML071440119), and July 10, 2007 (ML071870226). The LLOB determined that all the recommendations could be addressed adequately by the appropriate program offices, and that the threshold for additional oversight by the Board was not met.

Commission Meeting

On October 25, 2006, the Commission was briefed by the Board on the background, accomplishments, additional enhancements needed to ensure the future success of the program, and challenges concerning implementation of the LLP and the role of the LLOB. Staff Requirements Memorandum 061025A had 7 staff actions:

Legacy Effectiveness Reviews

1. The staff should consider whether there are additional legacy effectiveness reviews that would be worthwhile to examine such as construction problems at South Texas, and issues that arose that warranted an Incident Investigation Team.

On February 2, 2007, the Board provided recommendations to the EDO for the next legacy effectiveness reviews (ML070290408). The recommendations were: (1) Davis-Besse Loss of Feedwater (NUREG-1154); and (2) Loss of an Iridium-192 Source and Therapy Misadministration at Indiana Regional Cancer Center, Indiana, Pennsylvania on November 16, 1992, Incident Investigation Team (IIT) (NUREG-1480, February 1993).

On March 12, 2007, the EDO tasked the staff via memorandum (ML070600431) to perform the legacy effectiveness reviews of: (1) Davis-Besse Loss of Feedwater (NUREG-1154); and (2) Loss of an Iridium-192 Source and Therapy Misadministration at Indiana Regional Cancer Center, Indiana, Pennsylvania on November 16, 1992, Incident Investigation Team (IIT) (NUREG-1480, February 1993). The EDO tasking memorandum requires the legacy effectiveness reviews by NRR and FSME to be completed by January 15, 2008. The resource estimate for the two legacy effectiveness reviews is approximately 0.6 full time equivalents (FTE).

Senior Leadership Meeting (SLM)

2. The staff also should consider providing a status of the LLP and discussing lessons-learned items as well as the corrective action plans (CAPs) at each Agency SLM.

The status of the LLP was provided at the April 19 - 20, 2007, SLM (ML070861029) by the Board Chairman. The staff will provide a status of the LLP and discussing lessons-learned items as well as the CAPs at each Agency SLM.

Communication

3. The staff should continue to develop effective means to communicate the results of the LLP to the NRC staff, the public, and Congressional Oversight Committees.

NRC

The Agency Lessons-Learned System (ALLS) discussed in previous SECY papers was intended to capture, track, store, and retrieve information about lessons learned. The Base System for ALLS was intended to be a web-based user interface that facilitates searching of, and navigation through, key lessons learned topical areas. Development of the Base System was scheduled to be completed by the end of FY 2008, and the external interface to ALLS was scheduled to be developed in FY 2010. The ALLS Business Case was presented to the Information Technology Business Council (ITBC) on January 9, 2007. The ITBC voted to recommend to the Deputy Executive Director for Information Services and Administration and Chief Information Officer to approve proceeding with the ALLS Business Case on January 24, 2007 (ML070160091). The ALLS Business Case was disapproved by the Deputy Executive Director for Information Services and Chief Information Officer on June 26, 2007, to save time and money. ALLS will be replaced with the SharePoint Process EDO Lessons-Learned (SPELL). The Office of Information Services (OIS) plans to start work on SPELL on August 1, 2007, and complete work by the end of the second quarter of fiscal year (FY) 2008. OIS estimates the cost of SPELL to be approximately \$250 - \$350K.

Public

Even though the work of the Board is internal, the staff realizes that the NRC's true customers are the public. The staff has made the internal Board meeting summaries and the monthly LLP status reports publicly available. The status updates to the Commission on the LLP since SECY- 07-0027 as well as the monthly status reports and the Board meeting summaries have been made public. ADAMS Accession Numbers are provided as reference, where appropriate, to help the public retrieve documents.

Congress

The staff prepared information on the LLP for the NRC Budget Hearing for the House Appropriations Committee on March 28, 2007 (ML070670354).

Internal Stakeholder Comments

4. The staff should request stakeholder comments and compare its LLP to those in other Federal agencies and industry.

On May 2, 2007, the EDO issued a memorandum (ML071100191) requesting stakeholder comments. Comments were received from several stakeholders and are summarized in Enclosure 1. Enclosure 2 provides a summary of the staff's visit to a Federal agency and an industry site. The information obtained during the visits was previously considered during the program development by the task force and did not warrant an update of the LLP.

Davis-Besse Head Model Display

5. In the interests of continuing reinforcement to the staff of the importance of this program, the staff should either display the actual corrosion evidence of the Davis-Besse event or procure a model that shows the magnitude of this problem. The staff should inform the Commission of the cost to accomplish this task prior to expending funds.

The Office of Nuclear Regulatory Research (RES) wrote a memorandum to the Commission titled, "Cost Estimate for Davis-Besse Reactor Vessel Head Degradation Display," dated April 20, 2007 (ML070510580). The concept included a display similar to one used in trade shows or museums consisting of a model on a display table that could be viewed and touched from all sides.

By memorandum from Annette Vietti-Cook to Luis A. Reyes (ML071650131), dated June 14, 2007, the Commission disapproved the approach outlined by the April 20, 2007, memorandum. Instead, the staff will engage a graphics design firm to provide the final design and fabricate the display, and determine space availability. The staff plans to have the display completed by January 2008.

Resources

6. The staff should provide the Commission options for funding continuous review of the effectiveness of the LLP and individual CAPs and for funding the information technology that tracks and supports the program and dissemination of the results.

Resource estimates for performing legacy effectiveness reviews are not expected to be significant. Current resource estimates are 0.3 FTE for each legacy effectiveness review. We are piloting the current Legacy Effectiveness Reviews to determine the accuracy of these resource estimates. Two reviews, one reactor-related and one materials-related review, will be conducted each FY beginning in FY 2007. Each review will be conducted by the applicable program office - Nuclear Reactor Regulation, New Reactors, Nuclear Material Safety and Safeguards, or Federal and State Materials and Environmental Management Programs. Legacy reviews for FY 2007, FY 2008, and FY 2009 will be funded by program offices by utilizing resources from lower priority activities. For each FY starting in FY 2010, each office will request sufficient resources through the appropriate year's Planning, Budgeting, and Performance Management process.

Performance Measures

7. The staff should consider the performance measures contained in Exhibit 3, "Examples of Performance Measures," of Management Directive 6.8, "Lessons-Learned Program," when conducting the annual review of the LLP to evaluate the effectiveness of the program, disposition of recommendations for improving the program, and recommend process changes.

Management Directive 6.8 (ML062220175), "Lessons-Learned Program," has the performance measures to evaluate the LLP effectiveness. Since there are no lesson-learned items in the LLP, there is no data to evaluate the effectiveness of performance measures. The staff has expended approximately 0.75 FTE in FY 2007 on the implementation of the LLP and the two legacy effectiveness reviews are estimated to be approximately 0.6 FTE in FY 2007.

Recommendations

The following are the Board recommendations to improve the LLP which have been approved by the EDO.

- (1) Increase the awareness of the LLP by developing and implementing SPELL.
- (2) Lessons-learned from significant past events will be incorporated into SPELL.
- (3) The staff will continue to participate in periodic meetings with the "Society for Effective Lessons Learned Sharing." This organization is made up of Federal agency representatives (primarily the Department of Energy and contractors, but other Federal agencies are members) and diverse private companies who meet twice per year to discuss program implementation issues.
- (4) Continue to make the Board meeting documents publicly available.
- (5) Encourage offices and regions including at the SLM, to communicate findings from internal self-assessments, such as those recently performed by Region IV for the South Texas security guard allegation issues, to help inform other offices of potential process improvements, and as additional potential lessons-learned items are provided for the Board's review.

The staff will provide an implementation status of these recommendations in the next update.

RESOURCES:

The staff plans to expend approximately 0.75 FTE each year starting in FY 2008 on the implementation of the LLP, and the two legacy effectiveness reviews are estimated to be approximately 0.6 FTE each year starting in FY 2008.

COORDINATION:

The Office of the General Counsel reviewed this package and has no legal objection. The Chief Financial Officer has reviewed this package for financial implications and has no objection.

/RA/

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for Operations

Enclosures:

1. Summary of Internal Stakeholder Comments
2. Summary of Visits to a Federal Agency and an Industry Site

SUMMARY OF INTERNAL STAKEHOLDER COMMENTS

- The Lessons-Learned Program (LLP) should include programs or events that were completed successfully. The staff should learn from actions that were done right the first time, and not just failures that required corrective actions.
- There is confusion among some staff as to what vehicle should be used to identify potential lessons-learned items and report those items to management for inclusion in the LLP.
- The majority of the staff are unaware of the LLP's existence. An effort should be made to increase awareness of the program.
- Some staff believe the threshold for lessons-learned implementation is too high.
- There was an expectation that some lessons-learned from significant past events would be back-fit into the Information Technology (IT) portion of the LLP.
- Continue to participate in periodic meetings with the "Society for Effective Lessons Learned Sharing" (SELLS). This organization is made up of Federal agency representatives (primarily the Department of Energy and contractors, but other Federal agencies are members) and diverse private companies who meet twice per year to discuss program implementation issues.
- Continue to make the Board meeting documents publicly available.
- Development of the IT portion of the LLP should continue under the assumption that much of the information in the system should be made publicly available.
- Encourage that legacy lessons-learned effectiveness reviews be continued, to confirm the continued effectiveness of past corrective actions and to generate additional information to populate the IT portion of the LLP.
- Encourage offices and regions to advertise findings from internal self-assessments, such as those recently performed by Region IV for the South Texas security guard allegation issues, to help inform other offices of potential process improvements, and as additional potential lessons-learned items are provided for the Board's review.

SUMMARY OF VISITS TO A FEDERAL AGENCY AND AN INDUSTRY SITE

Federal Agency

On April 12, 2007, the staff met with the Department of Energy (DOE) to compare the NRC Lessons-Learned Program (LLP) with the DOE LLP. The staff reviewed DOE Order O 210.2, "DOE Corporate Operating Experience Program." DOE reviews a large volume of events. DOE systematically reviews, identifies, collects, screens, evaluates, and disseminates operating experience from U.S. and foreign government agencies and industry, professional societies, trade associations, national academies, universities, and DOE and its contractors. DOE mutually integrates the lessons learned requirements in other DOE directives. DOE lessons-learned are a subpart of the DOE Operating Experience Program. Approximately three percent of events from 1994 to present that DOE reviews become an Urgent type of lessons-learned.

Industry

The staff visited a closed-cycle, pressurized, light-water-moderated and cooled reactor site on May 14-15, 2007. The staff reviewed the licensee's procedures related to the plant's Corrective Action Program, attended a screening meeting of Condition Reports (CR), spoke with cognizant licensee personnel, and made an extensive plant tour. The licensee Corrective Action Program consists of the following processes:

- (1) An initiator enters a CR into the licensee's electronic database;
- (2) The CR is reviewed by the Operations department, the initiator's supervisor, and a Maintenance Rule coordinator;
- (3) The CR is screened by a Screening Committee and provided an initial Category; the significance level is assigned to CRs based on the risk significance and consequence of the condition with Category 1 being the most risk significant and Category 4 being the least risk significant;
- (4) The Management Review Committee (MRC) reviews and makes a final determination of the CR Category;
- (5) The CR is assigned an evaluator to complete the evaluation;
- (6) The appropriate review committee reviews and approves the evaluation based on the Category;
- (7) The corrective actions are completed; and
- (8) The appropriate review committee reviews and approves the closure of the CR.

Category 1 criteria is "Recurrence is Unacceptable." Category 1 includes a Significant Condition Adverse to Quality, which is a condition, if uncorrected, could affect the health and safety of the public, seriously affect the ability to operate the plant in a safe manner, represents a serious breakdown in programmatic controls, or will require a major effort to restore capability to perform specified functions. Approximately, 0.1 percent of CRs are Category 1. The licensee has Categories 2, 3, and 4 for less significant items.

NRC

The NRC LLP is managed from the Office of the Executive Director of Operations. The NRC LLP has a Lessons-Learned Program Manager with the Board as the decision-makers.

The information obtained during the visits was previously considered during the program development by the task force and did not warrant an update of the LLP.