

**POLICY ISSUE  
(Information)**

September 2, 2008

SECY-08-0128

FOR: The Commissioners

FROM: James Wiggins  
Deputy Office Director,  
Nuclear Reactor Regulation

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

PURPOSE:

The purpose is to provide the Commission with the annual update and review of the Lessons-Learned Program (LLP). This paper does not address any new commitments.

SUMMARY:

During the review period from August 2007 through July 2008, the Lessons Learned Oversight Board (LLOB) reviewed 36 items as potential candidates for entry into the LLP. Out of the 36 reviewed, two items met the screening criteria for consideration into the program. Corrective action plans for one of the items were reviewed by the LLOB and determined to be adequate. Actions related to the other item entered into the LLP will be reviewed during the next LLOB meeting. Communications with other offices and the Department of Energy (DOE) are ongoing and the staff is moving forward with the implementation of SharePoint Process EDO Lessons-Learned (SPELL). The LLOB is recommending that the EDO consider changes to MD 6.8 including: align LLP thresholds with the current Strategic Plan outcomes; allow the Executive Director for Operations (EDO) to move the LLP program management to another program office; include a methodology for performing an effectiveness review; and change the frequency of status reports from monthly to quarterly. In addition, two legacy effectiveness reviews were conducted and the LLOB concluded that no additional program office actions were warranted.

BACKGROUND:

At a Davis-Besse Lessons Learned Task Force Recommendations Commission briefing on December 8, 2004, staff proposed to develop and implement the LLP. In a Staff Requirements

CONTACT: Gregory Morell, OEDO/TRPS  
(301) 415-1727

Memorandum (SRM) dated December 15, 2004; the Commission approved the proposal and requested to be kept apprised of the LLP's status. Since February 2007, the Commission has been kept apprised of the LLP semiannually. On August 15, 2007, in its SRM (ML072270124) to SECY-07-0121 (ML071780197), the Commission approved the LLOB recommendation to provide annual updates of the LLP beginning in August 2008.

## DISCUSSION:

### **Lessons-Learned Oversight Board Activities**

In accordance with Management Directive (MD) 6.8, "Lessons-Learned Program," the LLOB screens issues for relevancy with respect to the LLP criteria, provides LLP oversight, performs an independent review and approval of proposed corrective action plans for issues that meet the LLP criteria, and reviews the corrective actions to evaluate the adequacy. The LLOB is comprised of senior managers nominated by Office Directors and Regional Administrators and appointed by the EDO as specified in a memorandum dated May 22, 2008 (ML081330619).

The LLOB met on November 20, 2007 (ML073600202), February 20, 2008 (ML080790164), March 10, 2008 (ML080790164), May 27, 2008 (ML081600002), and July 24, 2008 (ML082321310), to discuss recommendations from various internal and external reports. During this period, 36 reports were reviewed as potential lessons learned items. Two items met the LLP screening criteria and are discussed in the Lessons-Learned Items section of this report. The LLOB determined that the remaining items submitted did not meet the LLP criteria and determined that the items submitted could be addressed adequately by the appropriate program offices. The potential lessons learned items addressed during board meetings, are summarized in Enclosure 1.

### **Lessons-Learned Items**

On November 20, 2007, the LLOB reviewed potential lessons-learned items and concluded that the following two items met the criteria and should be designated as lessons-learned items (ML073600202): (1) Office of Federal and State Materials and Environmental Management Programs (FSME) - GAO-07-1038T, "Actions Taken by NRC to Strengthen Its Licensing Process for Sealed Radioactive Sources Are Not Effective;" and (2) Office of Information Services (OIS) - The Information Technology (IT) Development Analysis Team is tasked with evaluating the process used to award and manage large IT system development contracts.

### **Corrective Action Plans**

On June 27, 2008, the staff requested Commission approval of the Corrective Action Plan to address the vulnerabilities identified by the U.S. Government Accountability Office (GAO) Report GAO-07-1038T, the Senate Committee on Homeland Security and Governmental Affairs, Permanent Subcommittee on Investigations, and OIG in SECY-07-0147, "Response to U.S. Government Accountability Office Recommendations and Other Recommendations to Address Security Issues in the U.S. Nuclear Regulatory Commission Materials Program" dated September 18, 2007. The results of the GAO report were presented to the LLOB on July 24, 2008, and the LLOB determined that the findings of the report had met the criteria to be considered for inclusion in the LLP. The LLOB acknowledged that the corrective action plan had already been approved by the Commission and as a result, accepted that plan.

The OIS Corrective Action Plan will be reviewed at the next LLOB meeting.

### **Communication**

In SECY-07-0121 (ML071780197) dated July 25, 2007, staff provided the Commission with the semiannual update of the LLP and the annual LLP review. The following is the status of the five EDO approved LLOB recommendations as denoted in SECY-07-0121:

1. Encourage offices and regions, including at the Senior Leadership Meeting (SLM), to communicate findings from internal self-assessments, such as those recently performed by RIV 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.

Status: During the SLM on April 11, 2008, the LLOB Chairman provided a presentation on the status of the LLP. The presentation included a LLP overview, identification of the LLP items, and an overview of the SPELL program. The LLOB also considered candidate items such as the Peach Bottom Inattentive Security Officers and the Forsmark Lessons Learned, as shown in Enclosure 1.

2. The staff will 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 (DOE) and contractors) and diverse private companies who meet twice per year to discuss program implementation issues.

Status: DOE's SELLS has not had a periodic meeting since the spring 2007 and none are currently planned. The Lessons-Learned Project Manager (LLPM) will continue to monitor DOE lesson-learned activities and information sharing.

3. Continue to make the Board meeting documents publicly available.

Status: The staff continues to make LLP documents publicly available in ADAMS, and anticipates that the SPELL system will enhance the visibility of documents to both the public and staff. The Web-based knowledge management system being used by DOE provides a potentially useful, working example of how to share lessons learned in a large, diverse agency. The Web-based system also provides publicly available documents when applicable.

4. Increase the awareness of the LLP by developing and implementing SPELL.

Status: OIS started work on SPELL during the fourth quarter of Fiscal Year (FY) 2007. While the original plan was to complete work by the end of the second quarter of FY 2008, there have been significant delays due to hardware and software issues associated with this SharePoint application. SPELL will be delivered to the LLPM for user acceptance testing in late August 2008. Communications activities to increase the awareness of the LLP are centered on SPELL and have been delayed in turn by the delays in implementing the software.

5. Incorporate Lessons-Learned from significant past events into SPELL.

Status: Following user acceptance testing, previous lesson-learned items will be entered into the SPELL system. During FY 2009, the SPELL system will be rolled-out as a knowledge management system for the LLP. Enhancements will be identified and implemented as needed.

### **Management Directive Revisions**

Management Directive and Handbook 6.8 was issued on August 1, 2006, to implement the new agency wide LLP. Based on several years of implementation, the LLOB proposes the following changes to MD 6.8:

1. Lessons-Learned Thresholds: Program thresholds for entry of a lesson-learned item into the LLP refer to the Strategic Plan outcomes. The MD should be updated to reflect the strategic outcomes and organizational objectives as specified in the FY 2008-2013 Strategic Plan.
2. Responsibilities: The current MD specifies that the Lessons Learned Project Manager (LLPM) be a member of the EDO's staff. The MD should be flexible and revised to state that the EDO may choose to have any OEDO office oversee the project management of the LLP and may delegate LLP responsibilities as necessary.
3. Effectiveness Reviews: Effectiveness reviews of corrective actions that were completed before the LLP was instituted have been valuable for the participating offices and should be the central aspect of the knowledge management portion of the LLP. The MD should be expanded to include a methodology for performing an effectiveness review (including performance measures).
4. Change the frequency of status reports from monthly to quarterly.
5. The LLOB recommends that corrective action plans be approved by the EDO (for activities associated with EDO reporting offices) rather than the LLOB as specified by MD 6.8 and that MD 6.8 be modified to reflect the recommendation.

### **Legacy Effectiveness Reviews**

Consistent with SECY 06-0024 (ML060110321) and a memo to staff dated March 12, 2007 (ML070600431), the EDO directed that staff perform legacy effectiveness reviews for the: (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 Indiana Regional Cancer Center effectiveness review was previously reviewed for corrective action effectiveness on April 13, 2006 (ML060970383), as part of the LLP development effort (ML061950312), and was also reviewed by the LLPM. The effectiveness review was consistent with the current MD 6.8. Based on the above, this review does need to be re-reviewed by the LLOB.

In support of the LLP, on May 30, 2008, the Office of Nuclear Reactor Regulation (NRR) completed an effectiveness review of the Davis-Besse Loss of Feedwater event (ML0813400080). The staff determined that there were no outstanding safety issues and no significant deficiencies in the effectiveness of related regulatory programs. On July 24, 2008, the LLOB agreed with the staff's conclusion and as such, no additional effectiveness reviews are warranted for this item.

### **Recommendation to EDO to Discontinue Legacy Effectiveness Reviews**

Enclosure 2 lists the effectiveness reviews completed by the LLP development team and the LLOB. In SECY-07-0121, the staff committed to perform two effectiveness reviews, one reactor-related and one materials-related review, each FY beginning in FY 2007. Effectiveness reviews of legacy issues are not explicitly directed by MD 6.8, but they have allowed the board to address older items that would have met the threshold for inclusion into the LLP.

The effectiveness reviews have found that the proposed corrective actions were implemented and were effective. Effectiveness reviews performed thus far have given the LLOB an opportunity to determine whether requirements, systems, or policy have changed over time and whether additional or new corrective actions will have to be implemented. The effectiveness reviews have also provided a valuable addition to the knowledge and experience recorded and made available by the LLP. However, the LLOB has found no major issues while performing these legacy effectiveness reviews, and the LLOB believes that the items most worthy of attention have been revisited. Therefore, after FY 2009, this activity seems to no longer be a worthwhile expenditure of resources and should be discontinued.

### **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.

OIS started work on SPELL during the fourth quarter of FY 2007. While the original plan was to complete work by the end of the second quarter of FY 2008, there have been significant delays due to working out challenges associated with SPELL being the first project to be implemented into OIS' new SharePoint production environment. SPELL has recently been delivered to the LLPM for user acceptance testing. Following user acceptance testing, previous lesson-learned items will be entered into the SPELL system, and SPELL will be used to administer and record the LLP. During FY 2009, the LLP will be rolled out as a knowledge management system centered on the SPELL system. Enhancements will be identified and implemented as needed. OIS has expended \$342K toward the development of SPELL, and estimates the completion cost to be approximately \$417K, which is included in the OIS FY 2008 budget.

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/

James Wiggins  
Deputy Office Director,  
Nuclear Reactor Regulation

Enclosures:

1. Lessons-Learned Items
2. Lessons-Learned Programs  
Effectiveness Reviews

**Potential Lessons-Learned Items Presented to the Lessons-Learned Oversight Board  
between September 2007 and August 2008**

U.S. Government Accounting Office (GAO) Report GAO-07-1010, "DOE has Improved its Quality Assurance Program, but Whether its Application for a NRC License Will Be High Quality is Unclear;" (see Note 1)

\*GAO-07-1038T, "Actions Taken by NRC to Strengthen Its Licensing Process for Sealed Radioactive Sources are Not Effective;" (see Note 1)

GAO-07-1129, "NRC's Workforce and Processes for New Reactor Licensing are Generally in Place, but Uncertainties Remain as Industry Begins to Submit Applications;" (see Note 1)

GAO-07-1197R, "DOE and NRC have Different Security Requirements for Protecting Weapons-Grade Material from Terrorist Attacks;" (see Note 1)

NRC Office of the Inspector General (OIG) OIG-07-A-14, "Audit of NRC's Non-Capitalized Property;" (see Note 2)

OIG-07-A-15, "Audit of NRC's License Renewal Program;" (see Note 2)

OIG-07-A-16, "Audit of NRC's Process for Placing Documents in the ADAMS Public and Non-Public Libraries;" (see Note 2)

OIG-07-A-17, "Audit of NRC Oversight of its Federally Funded Research and Development Center;" (see Note 2)

OIG-07-A-19, "Independent Evaluation of NRC's Implementation of Federal Information Security Management Act (FISMA) for FY 2007;" (see Note 2)

OIG-07-A-20, "Inspector General's Assessment of the Most Serious Management and Performance Challenges Facing NRC;" (see Note 2)

\*Actions taken to address findings identified by the Information Technology (IT) Development Analysis Team, a task team chartered with evaluating the process used to award and manage large IT system development contracts; (See Note 3)

Lessons Learned from the NRC Response to the High Enriched Uranium Solution Spill event at Nuclear Fuel Services, Erwin; (See Note 3)

Lessons Learned During the Browns Ferry Unit 1 Recovery/Restart Effort; (See Note 3)  
Indian Point Siren Confirmatory Order Implementation Lessons Learned; (See Note 3) and  
NRC Office of Nuclear Reactor Regulation Fiscal Year 2009 Budget Formulation Process  
Lessons Learned. (See Note 3)

Review Team Findings with Respect to Inattentive Security Officers at Peach Bottom report  
(ML080420580)

Senior Executive Review Panel reported the results of their review of the Review Team Findings with Respect to Inattentive Security Officers at Peach Bottom report. (ML080570429)

GAO-08-114, NRC Has Made Progress in Implementing Its Reactor Oversight and Licensing Processes but Continues to Face Challenges

GAO-08-332, Occupational Dose Records, Labeling Containers, and the Total Effective Dose Equivalent

GAO-08-403, Nuclear Security: Action May Be Needed to Reassess the Security of NRC-Licensed Research Reactors

OIG-08-A-09, Audit of NRC's Power Uprate Program

OIG-08-A-08, Memorandum Report: Audit of NRC's Contract for Alternative Dispute Resolution Services

OIG-08-A-07, Audit of NRC's Oversight of Licensees' Nuclear Security Officers

OIG-08-A-06, Memorandum Report: NRC's Planned Cybersecurity Program

OIG-05-46, Special Inquiry, NRC's Oversight of Hemyc Fire Barriers

OIG-08-A-05, Review of NRC's Implementation of the Federal Managers' Financial Integrity Act for Fiscal Year 2007

OIG-08-A-04, Transmittal of the Independent Auditors' Report on the Condensed Financial Statements of the Nuclear Regulatory Commission for Fiscal Years 2007 and 2006

OIG-08-A-03, Memorandum Report: Audit of NRC's Alternative Dispute Resolution Program

OIG-08-A-02, Independent Auditors' Report on the U.S. Nuclear Regulatory Commission's Special-Purpose Financial Statements as of September 30, 2007, and 2006, and For the Years Then Ended

OIG-08-A-01, Results of the Audit of the United States Nuclear Regulatory Commission's Financial Statements for Fiscal Years 2007 and 2006

Special Task Group Investigation into Concerns Raised during Meeting with NRC Chairman Dale E. Klein via the "Open Door Policy" (ML073230786)

Review of the Implementation of Lessons Learned from Early Site Permits (ML073400634)

Status and lessons Learned from Dry Spent Fuel Storage in the United States (ML073320197)  
Operating Experience Brief 2008-02, "Forsmark Lessons Learned" (ML073470861)

NRC Decommissioning Lessons Learned report – 2007 (ML073460310)



Hematite Decommissioning Project – Lessons Learned (ML072640482)

Lessons Learned and Planned improvements for the Agency Action Review Meeting [AARM] and Supporting Processes (ML072050029)

Lessons Learned from an Inadvertent Release of Sensitive Unclassified Information (ML073600618)

Lessons Learned from ROP implementation practices review (ML081190536, ML081010229)

Items noted with a \* met the screening criteria for entry into the LLP

Note 1: All publicly available GAO Reports are accessible through the GAO Web Site at: <http://www.gao.gov/docsearch/>. Once at the Site, select “Browse by Agency,” select “Nuclear Regulatory Commission” and a desired date range, then select “Search.”

Note 2: All publicly available OIG Reports are accessible through the NRC’s Web Site at: <http://www.nrc.gov/reading-rm/doc-collections/insp-gen/>.

Note 3: Document is not publicly available.

### Lessons-Learned Program Effectiveness Reviews

Title	Org.	Assignment	Delivery	LLOB Review
Loss of Vital AC Power and the Residual Heat Removal System During Mid-Loop Operations at Vogtle Unit 1 on March 20, 1990" (NUREG-1410, June 1990)	NRR	January 27, 2006 ML060110310	April 13, 2006 ML060970206	July 14, 2006 ML061950312 (*by a team chartered in January 2005)
Indian Point 2 Steam Generator Tube Failure Lessons Learned Task Group" (Newberry memo dated October 23, 2000) (ML020710276, ML020320416)	NRR			
Potential Criticality Accident at the General Electric Nuclear Fuel and Component Manufacturing Facility, May 29, 1991" (NUREG-1450, August 1991)	NMSS		April 13, 2006 ML060970383	
Loss of an Iridium-192 Source and Therapy Misadministration at Indiana Regional Cancer Center, Indiana, Pennsylvania on November 16, 1992" (NUREG-1480, February 1993)	NMSS FSME	January 27, 2006 ML060110310 & March 12, 2007 ML070600431	April 13, 2006 ML060970383 & Jan. 14, 2008 via E-mail	
Unauthorized Forced Entry into the Protected Area at Three Mile Island Unit 1 on February 7, 1993" (NUREG-1485, April 1993)	NSIR	January 27, 2006 ML060110310	May 16, 2006 ML060510076	
Effect of Hurricane Andrew on Turkey Point Generating Station from August 20-30, 1992" (NUREG-1474, March 1993 and IN 95-53)	NSIR			
Loss of Main and Auxiliary Feedwater Event at the Davis-Besse Plant on June 9, 1985 (NUREG-1154, July 1985)(ML063560434)	NRR	March 12, 2007 ML070600431	May 30, 2008	July 24, 2008 ML TBD

\*MD 6.8 was issued in August 2006 and the LLOB was chartered in September 2006 (ML062510102).