

POLICY ISSUE INFORMATION

September 14, 2009

SECY-09-0129

FOR: The Commissioners

FROM: James E. Lyons, Chairman
Lessons-Learned Oversight Board

SUBJECT: ANNUAL REVIEW OF THE LESSONS-LEARNED PROGRAM

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.

BACKGROUND:

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

Management Directive (MD) 6.8, "Lessons-Learned Program," sets out the processes, procedures, and oversight that are designed to collectively ensure that significant agency deficiencies are identified and corrected in such a way that they do not recur. This goal is accomplished by using a rigorous process to identify significant lessons learned, developing detailed corrective action plans, subjecting those plans to formal review and approval, and ensuring that the plans have been effective and have not had any unintended consequences. Each corrective action plan must include an explanation of what actions will be taken to

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institutionalize the knowledge gained through the identification of a lesson learned to help prevent its recurrence. Because deficiencies entered into this program are expected to require significant resources to correct, and because the agency already has many corrective action mechanisms that function at the office level and below, a high threshold has been established for entering deficiencies into the LLP.

In accordance with MD 6.8, 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).

DISCUSSION:

Lessons-Learned Criteria

MD 6.8 specifies that a candidate lessons-learned item must meet all of the following criteria to be designated a lessons-learned item:

1. The item has significant organizational, safety, security, emergency preparedness, or generic implications;
2. A need exists to institutionalize corrective action for this item because the failure to do so would reasonably be expected to challenge the ability of the agency to meet any of the strategic outcomes designated in the Strategic Plan or the corrective action would substantially improve the safety or security of NRC employees;
3. A root cause exists, or can be identified; and
4. The apparent resolution is actionable.

The LLOB found that many of the candidate items failed the first and/or second criterion. One of the principle attributes of the LLP was to set the criteria high to ensure that only the most important issues will be considered. The high threshold was also based on a desire to maximize the impact of the agency resources expended, and to keep senior management focused on the most important lessons learned. Because of the high profile associated with items that would meet the criteria for inclusion into the LLP, the Commission and/or senior management will have already approved the corrective action plans. In addition, significant resources will have been expended. We expect future items that meet the threshold will have already received Commission and/or senior management approval. However, the LLP process will ensure that the potential for important items to be missed will be lessened and that any items that pass the screening criteria will receive the appropriate attention of senior management throughout the implementation, close-out of the CAP and the subsequent effectiveness review.

Lessons-Learned Items

The LLOB met on November 25, 2008 (ML090410574), and May 5, 2009 (ML091340516), to discuss recommendations from various internal and external investigations/reports (e.g., Office of Inspector General (OIG), Government Accountability Office (GAO), and internal/external events).

During this period, 29 reports were reviewed as potential lessons-learned items. Three items met the LLP screening criteria; however, one item was determined to be associated with an item already under the LLOB's oversight. The remaining items submitted did not meet the LLP criteria and the LLOB determined that the recommendations provided in the GAO and OIG reports, as well as other items brought to the LLOB for consideration, would be addressed adequately by the appropriate program offices. The potential lessons-learned items addressed during LLOB meetings are summarized in Enclosure 1.

The LLOB concluded that the lessons-learned items identified in the Office of Nuclear Material Safety and Safeguards "Report of Lessons Learned from the June 25, 2008, Medical Event at the Executive Boulevard Building," (ML082970070) and the OIG "Audit of NRC's Occupant Emergency Program" (ML090580117) should be included in the LLP. The LLOB indicated that because of the similarity of the findings in the two reports, the corrective actions could be incorporated into a single plan.

The OIG investigation titled, "Audit of National Source Tracking System Information System Development" (ML082030378) was reviewed by the LLOB, and passed the criteria for inclusion into the LLP. However, the LLOB determined that their oversight of the EDO's direction to identify improvements in the acquisition, development, and management of large information technology (IT) systems already covered the specific issues addressed in the OIG report.

Corrective Action Plans

The Executive Director for Operations (EDO) directed the staff to identify improvements in the acquisition, development, and management of large information technology (IT) systems subsequent to the July 25, 2007, Commission briefing regarding the status of the National Source Tracking System. The LLOB reviewed the Office of Information Services (OIS) corrective action plan (CAP) to address the "Findings and Next Steps from the Lessons Learned on the Development of Large Information Technology Systems," dated August 19, 2008 (ML082240069).

On November 25, 2008, OIS presented its Lessons-Learned CAP to the LLOB. The LLOB concluded that the CAP was adequate; however, the board determined that it would be beneficial to provide the CAP to all offices involved with contracts. OIS committed to convey the CAP items to affected offices. Additionally, the LLOB noted that OIS was to conduct the required effectiveness review and report the results to the LLOB in the second quarter of FY 2011.

On June 18, 2009, the EDO executives and LLOB members were briefed on the status of the recommendations specific to the Nuclear Material Safety and Safeguards "Report of Lessons Learned from the June 25, 2008, Medical Event at the Executive Boulevard Building." As of June 18, 2009, 19 of the 21 recommendations presented by the Medical Event Working Group

have been implemented. The LLOB determined that all the recommendations could be addressed adequately by the appropriate program offices, and that the additional oversight by the Board was not necessary.

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 conducted to date, have found that the proposed corrective actions were implemented and were effective. In addition, the effectiveness reviews 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, since the LLOB has found no major issues while performing these legacy effectiveness reviews, the LLOB believes that after FY 2010, this activity will no longer be a worthwhile expenditure of resources. Although there have been no effectiveness reviews conducted for the period from August 2008 through August, 2009, the LLOB will need to provide two additional legacy effectiveness reviews to complete the commitments as stated in SECY-07-0121 and in last year's Annual Report. Once completed, the LLOB will not require staff to complete additional legacy effectiveness reviews unless there is a specific request from management. The LLP and the Agency have benefitted from the effectiveness reviews that have been completed and have revisited the items that were most worthy of the LLOB's attention.

Lessons-Learned Oversight Board Activities

The LLOB continues to receive potential items for review from the offices. The OIS developed the SharePoint Executive Lessons-Learned System (SPELLS) web-based interface that will be used for tracking, searching, and archiving LPP information. Acceptance testing was completed in September, 2008, and was subsequently used to schedule, conduct and document the two LLOB meetings conducted in FY 2009. Based on SPELLS' acceptable performance, the previous lesson-learned items will be entered into the SPELLS, and SPELLS will be used administer and record the LLP. The LLP is expected to be rolled out as a knowledge management system centered on SPELLS in early FY 2010. A communication plan has been drafted and recommendations made to further enhance the system's efficiency and user ease. Additional enhancements to SPELLS will be identified and implemented as needed.

Management Directive and Handbook 6.8 was issued on August 1, 2006, and is being revised to incorporate the experienced gained in implementing the program. The revisions to MD 6.8 include providing the Executive Director for Operations (EDO) the latitude to move the LLP program management to a program office reporting to the EDO, and changing the frequency of EDO status reports from monthly to quarterly. 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 was revised to ensure that previous significant events and corrective actions will be captured in

SPELLS to ensure the capture of the basis for decisions made, the corrective actions implemented and taken to prevent future recurrence.

To assure a sound program was developed and consistently implemented, the LLP oversight role was initially managed in the Office of the EDO. Based on the maturity of the LLP, the EDO determined it was appropriate for the oversight to be moved to the line organization. On May 26, 2009, the EDO transferred the Lessons-Learned Program to the Office of Nuclear Regulatory Research (RES). The transfer requires RES to manage the LLP in accordance with MD 6.8 and to appoint a new program manager. In addition, James E. Lyons, Deputy Director of RES, was appointed to serve as the Chairman of the LLOB.

On June 16, 2009, OIG informed the EDO that it was initiating an audit of MD 6.8 to determine whether NRC's program meets its intended purpose to ensure that knowledge gained from significant lessons learned is retained and disseminated in a manner that will maximize its benefit and usefulness to the staff.

RESOURCES:

Starting in FY 2009, the staff estimates RES LLP resources to be approximately 0.3 FTE, which is in the FY 2009 budget. Additional two legacy effectiveness reviews are estimated to be approximately 0.6 FTE per year (0.3 FTE for each legacy effectiveness review). After selecting items for legacy review in FY 2010, each review will be conducted by the applicable program office and will be funded by program offices by utilizing resources from lower priority activities. No legacy reviews will be conducted subsequent to completion of the two reviews in early FY 2010.

During FY 2009, the LLP was expected to be rolled out as a knowledge management system centered on the SPELL system. However, due to suggestions received subsequent to providing demonstrations to senior management and the original Lessons-Learned Task-Force (LLTF) members, as well as enhancements to the system, the roll-out to staff has been delayed. The roll-out is scheduled to be provided to staff in late FY 2009 or early FY 2010. Required resources of \$144K in FY 2009 and \$375K in FY 2010 to maintain and update SPELL system have been included in the OEDO's FY 2009 budget and OEDO's FY 2010 requested budget, respectively.

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 E. Lyons, Chairman
Lessons-Learned Oversight Board

Enclosures:

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

**Potential Lessons-Learned Items Presented to the Lessons-Learned Oversight Board
from November 2008 through August 2009**

1. NRC Office of the Inspector General (OIG) 08-A-10, "Audit of Nuclear Regulatory Commission's (NRC's) Continuity of Operations Plan," (See Note 3)
2. OIG 08-A-11, "Audit of NRC's Accounting and Control Over Time and Labor Reporting" (See Note 1)
3. OIG 08-A-12, "Audit of NRC's USAID-Funded Activities" (See Note 1)
4. OIG 08-A-13, , "Evaluation of NRC's Training and Development Program" (See Note 1)
5. OIG 08-A-14 "Audit of NRC's Controls Over the Process for Eliminating Management Directives" (See Note 1)
6. OIG 07-65, "NRC's Response to Security-Related Concerns at Peach Bottom Atomic Power Station" (See Note 1)
7. OIG 08-A-15 "Memorandum Report: Audit of NRC's Use of Reemployed Annuitants" (See Note 1)
8. OIG 08-A-16, "Audit of NRC's Premium Class Travel" (See Note 1)
9. OIG 08-A-17, "Audit of NRC's Enforcement Program" (See Note 1)
10. OIG 08-A-18, "Independent Evaluation of NRC's Implementation of the Federal Security Management Act for Fiscal Year 2008" (See Note 1)
11. OIG 08-A-19 "Audit of NRC's Laptop Management" (See Note 1)
12. OIG 08-A-20, "Inspector General's Assessment of the Most Serious Management and Performance Challenges Facing NRC" (See Note 1)
13. U.S. Government Accountability Office (GAO) 08-813T "Low Level Radioactive Waste Status of Disposal Availability in the United States and Other Countries" (See Note 2)
14. GAO 08-598 "Nuclear Security: NRC and DHS Need to Take Additional Steps to Better Track and Detect Radioactive Material" (See Note 2)
15. GAO 08-910R "NRC: Revision of Fee Schedules; Fee Recovery for FY 2008" (See Note 2)
16. GAO 08-759 "Telecommunications: Agencies are Generally Following Sound Transition Planning Practices and GSA is Taking Actions to Resolve Challenges" (See Note 2)
17. GAO 08-747 "Nuclear Safety: NRC's Oversight of Fire Protection at U.S. Commercial Nuclear Reactor Units Could be Strengthened" (See Note 2)
18. *Nuclear Material Safety and Safeguards "Report of Lessons Learned from the June 25, 2008, Medical Event at the Executive Boulevard Building" (See Notes 3)
19. Office of Information Services "Evaluation of Lessons Learned on the Development of Large Information Technology Systems" (ML 082240069)
20. 2008-NRR-0254 Why Did the Oconee Flood Issue Take Many Years to Address?
21. 2009-NRR-0278 Focalpoint Analysis of Reactor Oversight Program
22. 2009-OIG-0266 OIG-09-A-01 Results of the Audit of the United States Nuclear Regulatory Commission's Financial Statements for Fiscal Year 2008
23. 2009-OIG-0266 OIG-09-A-02 Independent Auditor's Report on the U.S. Nuclear Regulatory Commission's Special-Purpose Financial Statements as of September 30, 2008 for the Year then Ended
24. 2009-OIG-0268 OIG-09-A-03 Audit of National Source Tracking System Information System Development
25. 2009-OIG-0269 OIG-09-A-04 Review of NRC's Implementation of the Federal Managers' Financial Integrity Act for Fiscal Year 2008
26. 2009-OIG-0271 OIG 09-A-06 Audit of the Committee to Review Generic Requirements

- 27. *2009-OIG-0270 OIG-09-A-07 Audit of NRC's Occupant Emergency Program
- 28. 2009-OIG-0274 OIG-09-A-08 Audit of NRC's Agreement State Program
- 29. 2009-OIG-0275 OIG 09-A-09 Audit of NRC's of Warehouse Operations

* Denotes item met the screening criteria and was accepted for inclusion into LLP

Note 1: 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 2: All publicly available GAO Reports are accessible through the GAO Web Site at:
<http://www.gao.gov/docsearch/repanctest.html>. Once at the Site, select "Browse by Agency," select "Nuclear Regulatory Commission" and a desired date range, then select "Search."

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).