

HSS Independent Activity Report - Rev. 0**Report Number:** HIAR-LANL-2011-11-18**Site:** Los Alamos National Laboratory**Subject:** Office of Enforcement and Oversight's Office of Safety and Emergency Management Evaluations Activity Report for the Los Alamos Site Office Nuclear Maintenance Management Program Oversight Self-Assessment**Dates of Activity :** 11/14/2011 - 11/18/2011**Report Preparer:** Tim Martin**Activity Description/Purpose:**

This activity report documents the results of the U.S. Department of Energy (DOE) Office of Health, Safety and Security (HSS) review of the Los Alamos Site Office (LASO) self-assessment of LASO's Nuclear Maintenance Management Program (NMMP) oversight program and activities. This self-assessment was led by the DOE LASO Facility Operations/Safety Engineering Team's (FO/SET) Nuclear Facility Maintenance Manager and was supported by a second member of the LASO FO/SET staff, an HSS subject matter expert, and a mechanical engineer from the National Nuclear Security Administration's Office of Nuclear Safety and Governance. The onsite data collection portion of the assessment was performed November 14-18, 2011, and LASO's final report of its self-assessment, *U.S. Department of Energy National Nuclear Security Administration Los Alamos Site Office, Self-Assessment Report for Los Alamos Site Office Nuclear Facility Maintenance Oversight*, was approved in December 2011.

The LASO self-assessment focused on the effectiveness of the LASO NMMP oversight program and activities as required by DOE Order 226.1A, *Implementation of Department of Energy Oversight Policy*. The seven self-assessment criteria were derived from the Chief of Defense Nuclear Safety (CDNS) biennial assessment criteria for the LASO nuclear maintenance functional area, and the assessment was performed in accordance with LASO Management Procedure MP 00.15, Rev-0, *LASO Self-Assessments for Federal Operations*. An HSS subject matter expert independently assessed selected program areas that were delineated in the LASO self-assessment plan.

Results:Conduct of the Self-Assessment

The LASO NMMP oversight self-assessment was appropriately planned, competently led, and effectively performed and reported. The team was experienced, well qualified for assessing LASO performance against their respective assigned review criteria, and incorporated independent perspectives by including team members outside the LASO chain of command. The self-assessment included an appropriate mix of document/record reviews, interviews, and observation of contractor activities. The final report was comprehensive and accurately reflected the individual and collective results of team member assessments.

Summary of Results as Described in the Self-Assessment Report

LASO's self-assessment concluded that six of the seven criteria were met, including that:

- LASO has established appropriate procedures and mechanisms for overseeing the Los Alamos National Laboratory (LANL) NMMP;
- LASO procedures and mechanisms ensure that implementing mechanisms for the NMMP meet contractual requirements as well as maintenance commitments in each nuclear facility safety basis;
- LASO has reviewed and approved a compliant and up-to-date NMMP for each nuclear facility.
- LASO assessments include surveillance of ongoing nuclear facility maintenance activities and include periodic assessments to verify proper implementation of nuclear facility safety basis requirements;
- Issues identified by previous reviews of LASO NMMP oversight have been appropriately resolved or an appropriate and clear path to resolution has been established; and
- LASO has sufficient trained and qualified staff assigned to oversee LANL NMMP performance.

However, the assessment of one criterion confirmed, as LASO management and staff already knew, that LASO has not yet been effective in ensuring that LANL contractor's self-assessments and operational awareness

activities include evaluating the effectiveness of the NMMP and conducting periodic assessments to verify proper implementation of nuclear facility safety basis requirements for maintenance. LANL has not yet defined the methodology and criteria for conducting a performance-based assessment of the 16 specific elements of the NMMP, including methods for assessing nuclear facility safety basis maintenance requirements to ensure compliance and effectiveness of the NMMP. The self-assessment report noted LASO's ongoing efforts to address this LANL performance deficiency and identified several LANL misinterpretations of NMMP requirements.

Conclusion

LASO's self-assessment demonstrated that LASO's NMMP oversight activities and program ownership have significantly improved and matured since the previous CDNS assessment. Further, it was clear that LASO management's support of the program was strong and that the FO/SET staff understood and supported management expectations and contributed to the overall safety and efficiency of LANL facilities. Overall, the LASO NMMP oversight self-assessment process was effective and adequately demonstrated that the NMMP oversight program was appropriately performed.

HSS Participants	References
<p>1(lead). Tim Martin</p>	<ul style="list-style-type: none"> • 10 CFR 830.120, Subpart A, Quality Assurance Requirements: • 10 CFR 830.120, Subpart B, Safety Basis Requirements • DOE P 226.1B, Department of Energy Oversight Policy • DOE O 226.1B, Implementation of Department of Energy Oversight Policy • DOE O 426.1, Chg 1, Federal Technical Capability • DOE O 414.1D, Quality Assurance • DOE O 430.1B Chg 2, Real Property and Asset Management • DOE O 433.1B, Maintenance Management Program for DOE Nuclear Facilities, dated 4-21-2010 • DOE O 426.2, Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities: • DOE G 433.1-1A, Nuclear Facility Maintenance Management Program Guide for Use with DOE O 433.B, dated 9-12-11 • NA-1 SD 226.1A, NNSA line Oversight and Contractor Assurance System Supplemental Directive • DOE-STD-1063-2011A, Facility Representatives • DOE-STD-1151-2010, Facility Representative Functional Area Qualification Standard • DOE-STD-1175-2006, Senior Technical Safety Manager Functional Area Qualification Standard • DOE-STD-1181-2004, Facility Maintenance Management Functional Area Qualification Standard • LASO Plan 00.14, Rev 0, Integrated Management System Description Including LASO Functions, Responsibilities, and Authorities (FRAs), dated 6/15/10 • LASO Management Procedure (MP) 00.12, LASO Independent Assessment Process • LASO MP 06.02, Rev 4, Safety System Oversight, dated 2-5-10 • LASO MP 06.04, LASO Facility Representative Program, Rev. 1, Sep. 8, 2008 • LASO MP 00.12, LASO Independent Assessment Process, Rev. 1, Feb. 19, 2009 • LASO MP 00.13, LASO Risk Based Oversight Planning, Rev. 1, Jul. 26, 10 • LASO MP 00.15, Rev 0, LASO Self-Assessments for Federal Operations, dated 5-7-09 • LASO Work Instruction (WI) 00.04, Assessment Shadow Activity Reporting, Rev. 3, Jan. 26, 2009

- LASO WI 00.05, Rev.-4, Assessment Schedule Change Control
- LASO WI 00.06, Rev.-1, Line Oversight, Contractor Assurance System (LOCAS)
- LASO WI 00.07, Rev.-1, Line Oversight Operational Awareness Quarterly Reporting
- LASO WI 00.13, LASO Annual Assessment Planning, Rev. 0, Apr. 1, 2011
- LASO WI 06.01, LASO Field Operations - Oversight/Surveillance Issues Reporting, Rev. 2, 3-5-10
- LASO WI 06.03, Facility Representative Contractor Assessment
- LANL Policy P950, Conduct of Maintenance, Rev. 2, Effective Date: 05/24/11
- LANL CRAD P950, Conduct of Maintenance Implementation Assessment, Rev.0, July 2010
- LANL AP-MNT-007, Measuring, Analyzing, & Reporting of Maintenance Performance, Rev. 4, Approval Date: 09/27/2011, Effective Date: 11/02/2011
- WI 00.04, Form A and Form B, WDP FCA – Conduct of Maintenance, for period 5/2-6/6/2011, documented by the NFMM
- WI 00.04, Form A and Form B, Cold Weather Shadow Assessment, for period 1/14-3/28/2011, documented by Landlord Program Team member
- WI 00.04, Form A and Form B, COM Implementation Assessment at WETF, for period 9/20-9/29/2011, documented by the NFMM
- WI 06.01 Attachment A, JRF-11-01 - TA-55 FSS Flow Switch Work, dated 12/14/2010
- WI 06.01 Attachment A, JRF-11-02 - MSS All-hands, dated 1/11/2011
- WI 06.01 Attachment A, JRF-11-03 [TA-55 Fire Loop Check Valve], dated 03/15/2011
- WI 06.01 Attachment A, JRF-11-04 - WCRR Monthly Diesel Generator PM, dated 04/08/2011
- WI 06.01 Attachment A, JRF-11-06 [Preventive Maintenance Cancellation], dated 4/12/2011
- WI 06.01 Attachment A, JRF-11-09 STO Work Control, dated 6/22/2011
- WI 06.01 Attachment A, JRF-11-10 MSS All-hands, dated 8/2-4/2011
- WI 06.01 Attachment A, JRF-12-01 PIV replacement, dated 9/28-10/22/2011
- WI 06.01 Attachment A, JRF-12-02 PIVs above frostline, dated 10/25/2011
- WI 06.01 Attachment A, JRF-12-03 - Safety Basis Commitment to the Nuclear Maintenance (Draft)
- MS Excel Spreadsheet: Assessment Schedule FY12 SET
- MS Word Document: LASO Nuclear Facility Maintenance Program Oversight Plan
- LASO Memo FO/SET: 26JRF-384238, *LASO Assessment Report on LANL Vital Safety System (VSS) Preventive Maintenance Tasks and Frequencies*, Oct. 13, 2011
- FO/SET: 26JRF-346198, *LASO Nuclear Maintenance Management Program Assessment Report*, Jun. 20, 2011
- FO/SET: 26JF-319608, *Los Alamos National Laboratory – Nuclear Maintenance Management Program*, Feb. 10, 2011
- FO/SET: 26JRF-329468, *Approval of LANL Nuclear Maintenance Management Program and Exemption to Full Implementation Date*, Apr. 12, 2011
- FO/SET: 26JRF-373594, *Request for Clarification of Scope of Applicability of LANS P950*, Sep. 20, 2011
- LANS Memo PADOPS-11-25, *Response to “Request for Clarification of Scope*

of Applicability of LANS P950, Oct. 31, 2011

- 2009 CDNS Review of LASO Maintenance Management Oversight
- Assessment Report for LANL of VSS Preventative Maintenance Tasks & Schedules, dated 10/13/2011
- Closure Records for 2009 CDNS Review of LASO Maintenance Management Oversight
- DRAFT 2011 LANL Assessment Schedule-9/29/2010
- ePegasus Closure Documentation for Issues Identified in the 2009 CDNS Review of LASO Maintenance Management Oversight
- Fiscal Year 2012 Los Alamos Integrated Assessment Schedule, dated Oct. 28, 2011
- FTCP Memorandum, "Annual Workforce Analysis and Staffing Plan Report for Calendar Year 2011
- FY 2011 SET Vital Safety System Comparative Risk Ranking for Assessment Priority
- FY 2011 SET Vital Safety System Comparative Risk Ranking for Assessment Priority
- FY2011 Nuclear Facility Maintenance Program Oversight Plan
- FY2012 Nuclear Facility Maintenance Program Oversight Plan
- LANL MSS Division Letter to the NFMM Requesting Confirmation of Concurrence on Administrative Changes for Laboratory policy P950, dated 6/7/2011
- LASO Annual Workforce Analysis and Staffing Plan for CY2010, dated 1/20/2011
- LASO Assessment Change Control Form for ePegasus ASM-FO-7.20.2011-364621
- LASO FY11 Master Assessment Schedule & LANL Integrated Assessment Schedule
- LASO Nuclear Maintenance Management Program Assessment Report, dated 6/20/2011
- LASO Organization Chart, dated 11/01/2011
- LASO SET FY 2011 Planned Assessment Schedule
- LASO SET FY 2012 Planned Assessment Schedule
- Memorandum transmitting LASO Comments on LANLs proposed NMMP, DRAFT P950, Rev.2, dated 2/10/2011
- Memorandum LASO AMFO and a COR to the LANS MSS Division Director, dated 07/14/2011, Transmittal of Maintenance Oversight Issues
- Memorandum LASO Manager to AMFO, dated 11/09/2011, Establishing Compensatory Measures for STSM qualification Status
- Monthly Nuclear Facility Maintenance Operational Awareness reports for CY 2011
- NFMM's EXCEL spreadsheet capturing FY 2011 Formality of Operations-Maintenance findings, events, issues, trends and observations
- Position Description for the NFMM
- Position Descriptions for Facility Representative
- Position Descriptions for Managers and Supervisors with Responsibility for SSO Program
- SET FY12 Assessment Change Control Forms 12-1 through 12-12
- TQP Records Facility Representatives
- TQP Records for Managers and Supervisors with Responsibility for SSO

Program

- Management Program, dated 11/02/2012
- Word Document containing WI 00.04, Form A and Form B text for NHHO Extreme Cold Weather Effectiveness Evaluation, documented by the NFMM
- Workforce Analysis Template-2011

Were there any items for HSS follow up? Yes No

HSS Follow Up Items

- None