

**Office of Health, Safety and Security
Office of Enforcement and Oversight**

**Independent Oversight Review of
Integrated Safety Management
System Effectiveness at the
Livermore Site Office**



October 2011

**Office of Safety and Emergency Management Evaluations
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Acronyms

CAS	Contractor Assurance System
CRAD	Criteria and Review Approach Document
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy
DPO	Differing Professional Opinion
ES&H	Environment, Safety, and Health
FY	Fiscal Year
HSS	Office of Health, Safety and Security
ISM	Integrated Safety Management
ISMS	Integrated Safety Management System
ITS	Issues Tracking System
LCON	Livermore Site Office Contractor Assessment
LLNL	Lawrence Livermore National Laboratory
LLNS	Lawrence Livermore National Security, LLC
LSO	Livermore Site Office
MAP	Master Assessment Plan
MAS	Master Assessment Schedule
MPM	Maintenance Program Manager
NMTP	Nuclear Materials Technology Program
NNSA	National Nuclear Security Administration
OpEx	Operating Experience
PIR	Periodic Issues Report
RHWM	Radiological and Hazardous Waste Management
STSA	Senior Technical Safety Advisor
WI	Work Instruction
WP&C	Work Planning and Control

Independent Oversight Review of Integrated Safety Management System Effectiveness at the Livermore Site Office

1.0 PURPOSE

The purpose of this review was to assess the effectiveness of the integrated safety management system (ISMS) established and implemented by the Livermore Site Office (LSO).

2.0 BACKGROUND

This review was performed by the U.S. Department of Energy (DOE) Office Safety and Emergency Management Evaluations (Independent Oversight), within the Office of Health, Safety and Security (HSS). Support was provided by the National Nuclear Security Administration (NNSA) Office of Nuclear Safety and Governance (NA-171). The onsite portion of the review was performed July 11-21, 2011. LSO will use the results of the review to support a DOE integrated safety management (ISM) declaration of the status and effectiveness of the ISMS at LSO in accordance with DOE Order 450.2, *Integrated Safety Management*, and LSO Work Instruction (WI) 450.4.1, *Annual ISM Effectiveness Review and Declaration*. Independent Oversight also performed a concurrent review of the Lawrence Livermore National Laboratory (LLNL) ISMS program and reported results of that review in a separate independent review report.

3.0 SCOPE

The review assessed LSO's implementation of ISM as defined in DOE Policy 450.4A, *Integrated Safety Management Policy*, and DOE Order 450.2, *Integrated Safety Management*. The focus of the review was to confirm that LSO implementing mechanisms are established and implemented to provide an effective environment for ISM implementation, as embodied in the ISM guiding principles and supplemental safety culture elements, and to identify areas of needed improvement and areas of strength. The effectiveness of corrective actions taken in response to the February 2010 ISMS report, *Livermore Site Office Integrated Safety Management System (ISMS) Phase I and Phase II, Appendix 5.1 HSS Mission Support Review of the Integrated Safety Management System of the Livermore Site Office* (hereafter referred to as the 2010 ISMS verification report) was also reviewed, as were corrective actions taken in response to work planning and control (WP&C) deficiencies identified in a June 14, 2010, letter from the Defense Nuclear Facilities Safety Board (DNFSB).

Throughout the review, LSO and DNFSB staff were briefed on Independent Oversight's observations and emerging issues.

4.0 RESULTS

Roles and Responsibilities

Roles and responsibilities are clearly assigned in a recently issued LSO *Integrated Safety Management System Manual*, which consolidated requirements and replaced the following three documents: *Integrated Safety Management System Description (ISMD)*, *Environment, Safety & Health (ES&H) Functions*,

Responsibilities, & Authorities Manual (FRAM), and LSO M414, *National Nuclear Security Administration Livermore Site Office Quality Assurance Program Manual*. In addition, LSO recently changed its organizational structure to better align responsibilities and authorities and increase accountability.

Oversight

LSO has established adequate programs and processes for flowing down requirements and overseeing the safety of contractor operations. These programs and processes are documented in LSO O226.1A, Rev. 1, *Risk-based Oversight*; WI 226.1.1, *Writing and Managing Contractor Assessments, Issues, and Corrective Action Plans in Pegasus*; WI 226.1.2, *Oversight Planning*; and WI 226.1.3, *Performing Oversight*. WI 0226.1.4, *Periodic Issues Report (PIR)* outlines the process for management review of issues entered in ePegasus and subsequent transmittal of issues to LLNL on a monthly basis. These programs and processes assign responsibilities and provide adequate direction to the LSO staff for oversight of contractor activities in the areas of WP&C, contractor assurance, quality assurance, and training.

The Maintenance Program Manager (MPM) has worked closely with Lawrence Livermore National Security, LLC (LLNS) to implement DOE Order 433.1B, which was released in April 2010. A performance measure was added to the fiscal year (FY) 2011 Contractors Performance Evaluation Plan to implement and manage the nuclear maintenance management program, including addressing LSO comments. This activity was completed successfully in April 2011.

LSO develops annual assessment plans and schedules for evaluating the effectiveness of the LLNL contractor assurance system (CAS) and for performing self-assessments to evaluate the effectiveness of LSO activities. Independent Oversight reviewed assessment plans and schedules documented in the FY 2011 Master Assessment Plan (MAP) and the FY 2011 Master Assessment Schedule (MAS). The MAP is comprehensive and includes inspections, reviews, surveillances, surveys, and operational activities that evaluate programs and management systems. It lists the functional areas, elements, requirements document, priority, required frequency, date when the last assessment was performed, whether it is a Performance Evaluation Plan item, and the lead organization for conducting the assessment. The planned assessments and schedules were generally appropriate, but the information included for several listed assessments was incomplete. For example, a self-assessment of the nuclear maintenance program area was last performed in 2006, and no such self-assessment is scheduled in the FY 2011 MAS; according to the MAP-assigned priority, it should be performed every five years. Similarly, the information on the MAP for assessing the differing professional opinion (DPO) process did not cite the date of the previous assessment, none was scheduled for FY 2011, and no reason was provided for the omission. Subsequently, LSO conducted an FY 2010 self-assessment during the first quarter of FY 2011, but this information was not reflected in the MAP.

Facility Representatives and subject matter experts monitor contractor performance via walkthroughs and assessments. Both of the Facility Representatives assigned to Superblock were visible and engaged, and they exhibited a questioning attitude during the Independent Oversight review. For example, during observation of the B331 tritium window replacement job, the Facility Representative offered several perspectives on WP&C performance in the nuclear materials technology program (NMTP). Due to scheduling conflicts, Independent Oversight was not able to shadow subject matter experts on operational awareness activities. However, based on a review of Facility Representative and subject matter expert surveillances and assessment reports, Independent Oversight noted that they assign preliminary significance ratings to the issues that they identify and enter them into an ePegasus database. LSO management further reviews these issues, assigns final ratings, and includes them in PIRs. Independent Oversight attended a PIR meeting where LSO management reviewed and assigned final significance

ratings to identified issues. Management thoroughly reviewed the issues, changed some preliminary ratings, and deferred one issue to obtain additional information.

LSO uses the results of self-assessments and oversight of contractor activities to support its annual declaration of the status and effectiveness of ISM implementation at LLNL. In addition, LSO leverages the resources of peers and HSS in obtaining an objective, independent perspective and feedback on its programs, such as the Facility Representative program and ISMS effectiveness.

Work Planning and Control

In response to the DNFSB, LSO has taken significant steps to improve the effectiveness of its oversight and operational awareness activities for WP&C. The LSO Senior Technical Safety Advisor (STSA) has been designated as the subject matter expert for WP&C, and LSO revised its processes and ePegasus applications to make them consistent with *NNSA Activity Level Work Control Criteria and Review Approach Documents (CRADs)* and to focus reviews on activity-level work planning utilizing subject matter experts.

The LSO MAP now includes work control as a functional area to facilitate the planning and scheduling of activity-level surveillances and assessments of work control. Further, LSO ePegasus has been improved during FY 2011 to include ISMS work control core functions as MAP elements to facilitate documentation of work control oversight activities, results, data retrieval, and trending. Additionally, LSO WI 226.1.3, *Performing Oversight*, was improved to provide guidance for the assessment of work control, including expectations to use CRADs from the 2006 NNSA guidance. Finally, the LSO STSA has developed and presented training on WP&C oversight to Facility Representatives and ES&H subject matter experts. However, the LSO Maintenance Program Manager, who is also responsible for oversight of the nuclear maintenance program, has not been trained in the LSO approach to WP&C oversight and operational awareness.

Overall, LSO has been responsive to the commitments made to the DNFSB. LSO's oversight of LLNL commitments in the same letter to the DNFSB has been appropriate and consistent with its approach to improving WP&C at LLNL. Appendix B provides additional details on the status of the DNFSB commitments.

Employee Concerns Program and Differing Professional Opinion Process

LSO has an established employee concerns program. The effectiveness of this program is evaluated annually, but LSO has not fully assessed the increasing trend in the number of employee concerns raised (zero in FY 2008, three in FY 2009, and seven in FY 2010).

LSO has established an adequate DPO process, but the process has not been used. The FY 2010 self-assessment indicated that only managers were interviewed. LSO has not performed surveys or evaluations to determine why the DPO process is not being used (e.g. whether existing systems are effective in resolving issues as they arise, whether there is a lack of understanding/awareness of the process, or whether LSO personnel are reluctant to use the process).

Training and Qualification

LSO management has adequately defined the requirements, experience, knowledge, skills, and abilities for personnel implementing assurance system elements. LSO staff are adequately trained and qualified to perform assigned oversight activities. LSO's training and qualification program is well managed and effectively implemented. Assessments are conducted to identify issues that need to be resolved. Continuing training was recently provided to Facility Representatives and subject matter experts on

WP&C oversight at the activity level to meet commitments to the DNFSB. Similar training was not provided to other staff members with oversight responsibilities.

Corrective Actions

LSO has a process to verify that corrective actions are complete and performed in accordance with requirements before findings identified by DOE assessments or reviews are closed. LSO also requires that deficiencies be analyzed both individually and collectively to identify causes and prevent recurrences. However, this review identified several examples of LLNL (and in one case LSO) closing corrective actions before verifying that the actions were adequately implemented.

Independent Oversight assessed the status of LSO's corrective actions taken in response to three issues identified in the 2010 ISMS verification report. The corrective action for one issue was closed before it was completed, and corrective actions for the other two were ongoing at the time of this review. Details are provided in Appendix A.

Based on LSO's most recent assessment of LLNL's contractor assurance process, as well as this Independent Oversight review, LSO is aware of the LLNL issues associated with corrective action closure, has provided feedback to LLNL, and is taking the appropriate actions.

Summary

LSO has a mature ISMS program that has benefited from several years of feedback and improvement. Recent initiatives, such as the consolidation of safety and quality program documents, realignment of the LSO organizational structure, and the request for peer reviews and independent HSS reviews, show that LSO is a learning organization and that this feedback and improvement process is continuing. The process for overseeing the safety of contractor activities is improving. LSO managers are involved in and aware of identified issues, and these issues are communicated to LLNL. An appropriate employee concerns program has been established; however, an increasing trend in the number of identified concerns has not been fully evaluated. Similarly, LSO has established an appropriate DPO process, but it is not being used, and the reasons for the lack of use have not been determined. Although the LSO staff is adequately trained, some managers with oversight responsibilities have not been trained in WP&C oversight. Finally, LSO self-identified that corrective actions taken in response to the 2010 ISMS verification report are incomplete, and one issue was prematurely closed.

Appendix A

Status and Evaluation of Corrective Actions for the 2010 ISMS Verification Report

DOE.2-1/W: The effectiveness of the LSO operating experience and lessons-learned program is hindered by out-of-date procedures, insufficient processes for monitoring LLNL's lessons-learned program, and insufficient processes for distributing lessons learned to LSO staff.

HSS Assessment: This concern was closed even though the action was not completed. The LSO staff member assigned to implement this corrective action developed a process document for the LSO corporate operating experience (OpEx) program, routed it for review, and closed the action in ePegasus prior to his retirement; the person who then became responsible for the OpEx and lessons-learned programs was not aware that the procedure being routed for review was intended to close an ISMS review recommendation. During the review process, the responsible person wanted to evaluate whether there should be an LSO OpEx policy or an OpEx Safety Management Program Description Document so the document was not signed off and routed for approval.

The corrective action closure was not verified by the assigned verifier/management verifier as prescribed in LSO WI 414.9.1, Appendix 3 and Appendix 7. During this review, it was noted that the responsibility for these programs is once again being reassigned, this time due to job transfer.

Quarterly OpEx reports are generated and sent to the LSO managers for distribution to staff, but it is not clear whether these reports are in fact distributed to staff and what actions, if any, are taken based on the information provided. Additionally, lessons learned are sometimes offered by the Technical Training Manager as a continuing training item. However, there is no documentation showing that lessons learned are distributed to staff, that lessons learned are included in the required reading for continuing training, or that actions have been taken in response to the information provided.

Since the procedures have not been updated and the corrective action was closed prematurely, this issue remains unresolved.

Recommendation: In addition to addressing this specific action, LSO needs to assure that corrective actions are tracked, closed, and verified appropriately, particularly when responsibilities are transferred.

DOE.2-2W/W: Although the new information tracking system (ePegasus) is in place and operational, data was not available in the new system to support adequate corrective action tracking and trending.

HSS Assessment: Use of ePegasus has matured, and LSO has the ability to track and trend some of the data. The quarterly OpEx report noted the number of actions assigned, completed on schedule, completed late, and overdue; draft ePegasus actions; and late actions by Division. No analysis of the data is noted in the report. Based on the discussion with the OpEx and lessons-learned coordinator and CAS manager, it is unclear how widely the report is distributed and what action, if any, is taken in response to the reported data. LSO noted that in a recent review, tracking and trending of corrective actions was deemed partially effective. LSO will continue to address this issue.

DOE.2-3/W: LSO has not established and implemented fully effective processes for trending and tracking operational awareness data and has not performed an effectiveness review of corrective actions for previously identified deficiencies.

HSS Assessment: As noted above, the quarterly OpEx report lists data on Occurrence Reporting and Processing System, Noncompliance Tracking System, issue trends, and LLNL data, but there is limited evidence that this information is distributed beyond the managers and that actions have been taken as a result of this information. LSO noted that in a recent review, this action was deemed partially effective. LSO will continue to address this issue.

Appendix B

Status and Evaluation of Corrective Actions for 2010 DNFSB WP&C Issues

In a June 2010 letter, the DNFSB identified deficiencies in WP&C at NMTP facilities and in LSO's oversight of WP&C. In response, LSO directed LLNL to take immediate actions to strengthen WP&C and took steps to strengthen its oversight of LLNL WP&C activities. Independent Oversight evaluated the status of LSO's actions to strengthen its WP&C oversight of LLNL.

Independent Oversight found that LSO has revised its processes and ePegasus applications to make them consistent with *NNSA Activity Level Work Control Criteria and Review Approach Documents (CRADs)* and to focus reviews on activity-level work planning utilizing subject matter experts.

LSO has also taken steps to improve the effectiveness of its oversight and operational awareness activities for WP&C. The LSO STSA was designated as the subject matter expert for WP&C and worked closely with the Corrective Action Manager during the development of the LSO MAS for FY 2011. One of the key improvements in the MAS is the expectation that activity-level WP&C oversight would span all aspects of the program. This expectation is being carried out by a combination of assessments performed by Facility Representatives and subject matter experts, using CRADs that were developed in 2006 by NNSA guidance. The STSA monitors and analyzes these assessments with ePegasus system search and review functions to ensure that all five elements of WP&C (ISMS core functions) are addressed.

In FY 2011, the number of assessments planned and performed related to WP&C is about half the number performed in FY 2010. Based on discussions with the STSA, the real benefit in using this targeted approach may not become evident until FY 2012, when LSO subject matter experts are expected to be responsible for more WP&C assessments in support of Facility Representatives. One concern of note is that fewer than ten issues have been raised related to Core Function 1, Define Scope of Work, noted in Figure 3 of the *LSO ISMS and Work Control Assessment and Issue Analysis, July 2011* report. This number of issues is well below the number of issues related to the other core functions, and it is counter to the issues distribution in Independent Oversight's review of the LLNL WP&C process; Independent Oversight identified issues involving broad-scope integrated work sheets that led to issues in identifying hazards and implementing appropriate controls. More attention to the WP&C element, Define Scope of Work, may be appropriate in the FY 2012 MAS.

The LSO MAP now includes work control as a functional area to facilitate the planning and scheduling of activity-level surveillances and assessments of work control. Further, LSO ePegasus has been improved during FY 2011 to include ISMS work control core functions as MAP elements to facilitate documentation of work control oversight activities, results, data retrieval, and trending. Additionally, LSO WI 226.1.3, *Performing Oversight*, was improved to provide guidance for the assessment of work control, including expectations to use CRADs from the 2006 NNSA guidance. Finally, the LSO STSA has developed and presented training on WP&C oversight to Facility Representatives and ES&H subject matter experts. However, the LSO Maintenance Program Manager, who is also responsible for oversight of the nuclear maintenance program, has not been trained for continuity in the LSO approach to WP&C oversight and operational awareness.

The LSO MAS includes a large number of Livermore Site Office Contractor Assessment (LCON)-2 assessments for Facility Representatives to perform, entitled "Observation of Work Activity from Start to Finish." While it is recognized that any one activity is not generally observed from start to finish, the approach recognizes that the Facility Representatives and ES&H subject matter experts will choose from a wide range of activities and engage at various points in the WP&C process to accomplish the intended breadth of observations. The involvement of ES&H subject matter experts in assessing work activities with WP&C CRADs through LCON-2 assessments in FY 2011 is limited to reviews of safety system

changes and construction activities. The breadth of LSO participation in WP&C assessments could be further extended for ES&H subject matter experts in the FY 2012 MAS (e.g., radiation protection, industrial health and safety, electrical safety, explosives safety) where LSO has related expertise to further support the Facility Representatives in this functional area. The MPM has scheduled assessments for FY 2011 in maintenance activity-level WP&C. Through hard-copy records and interfaces with ePegasus, he also demonstrated good follow-through with the contractor and is knowledgeable of identified issues in his area of expertise. Overall, LSO has emphasized WP&C assessment activities during FY 2011 and has instituted metrics for further improving oversight and risk-informed decision making for future MASs.

LSO holds monthly PIR meetings to address issues raised during the prior month's assessment activities. LSO Deputy and Assistant Managers review and discuss the identified deficiencies, weaknesses, observations, and strengths and sometimes invite the subject matter experts who developed the issues for additional insights. The meeting validates the issue designations and thereby determines which issues will be formally transmitted to LLNS each month. Following the meeting, all weaknesses and deficiencies are processed for transmittal. Independent Oversight observed the July 2011 meeting and found that a mature process for issues management is in place. Managers were efficient and effective in either affirming issues or coming to agreement to downgrade or upgrade identified issues. Decisions from this meeting are taken by the LSO Corrective Actions Manager, and all deficiencies and weaknesses are forwarded to LLNS through the LSO Contracting Officer for entry into the Issues Tracking System (ITS).

The MPM also interfaces with Facility Representatives and ES&H subject matter experts during the weekly Superblock and Radiological and Hazardous Waste Management (RHWM) facilities meeting. This meeting is run by LSO Operations Team Leads and provides a forum to discuss and share WP&C issues. The MPM works closely with LLNL as they address maintenance issues raised in periodic LSO assessments. These issues were previously addressed at the LSO PIR meeting and then formally adopted into the LLNS ITS.

Overall, LSO has been responsive to the commitments made to the DNFSB. Additionally, LSO's oversight of LLNL commitments in the same letter to the DNFSB has been appropriate and consistent with its approach to improving WP&C at LLNL.

Appendix C

Recommendations

1. Complete corrective actions to address previously identified weaknesses in the lessons-learned and operating experience programs. Ensure that corrective actions are tracked, closed, and verified appropriately, particularly during periods of transition when responsibilities are transferred from one individual to another.
2. Provide more complete and precise information on master assessment plans and schedules, including dates when listed assessments were last performed, dates when future assessments are scheduled, and the reasons why listed assessments are not scheduled to be performed.
3. Conduct a self-assessment of the LSO nuclear maintenance program in FY 2012.
4. Provide continuing training in the area of oversight of work planning and control and operational awareness to all individuals with assigned responsibilities in this area. Consider providing this training to LSO managers such as the Maintenance Program Manager, who is also responsible for oversight of the nuclear maintenance program, and other individuals with associated responsibilities (e.g., Facilities Program Manager, Waste Management Program Manager, Criticality Safety Engineer, and Operations Team Leads).
5. Consider extending the breadth of LSO participation in work planning and control assessments to ES&H subject matter experts (e.g., radiation protection, industrial health and safety, electrical safety, explosives safety) where LSO has related expertise to further support the Facility Representatives in these functional areas.
6. Consider providing some analysis or a statement in the analysis section of the employee concerns program checklist regarding the issues and the basis for the increase in the number of concerns submitted (zero in FY 2008, three in FY 2009, and seven in FY 2010). For example, indicate whether the increase was due to awareness of the program based on recent training or whether there were similarities or correlations/trends in the concerns submitted with respect to work groups or topical areas. Similarly, consider evaluating the reasons for the lack of use of the DPO process.

Appendix D

Documents Reviewed, Interviews, and Observations

Records Reviewed:

- LSO Organization Chart, May 3, 2011
- LSO M 414.1 *Integrated Management System Manual*, Rev 1, June 2011
- LSO Work Instruction 226.1.2, *Oversight Planning*, August 26, 2010
- LSO Work Instruction 226.1.3, *Performing Oversight*, August 26, 2010
- LSO Work Instruction 226.1.4, *Periodic Issues Report* (Rev 1), March 02, 2011
- LSO Work Instruction 414.9.1 *Writing and Managing Assessments of LSO, Issues, and Corrective Action Plans in Pegasus*
- LSO Master Assessment Schedule, FY2011
- LSO Master Assessment Plan (MAP), FY2011
- Superblock and RHWB Operations Teams Meeting Agenda, July 19, 2011
- Contractor Performance Evaluation Plan, Operations Section 7.2
- LSO LCON-1 *Facility Representative Walkthrough at Superblock Facilities*, February 28 – March 4, 2011, e-Pegasus ASRP-OM-4.29.2011-344181
- LSO LCON-2 *Facility Representative Activity Observation/Surveillance, Recovery and Completion of Housekeeping Filter Replacement in Bldg 332, Room 1378*, e-Pegasus ASRP-OM-11.29.2010-304313
- LSO LCON-2 *Facility Representative Activity Observation/Surveillance, Housekeeping HEPA Filter Replacement in Bldg 332, e-Pegasus ASRP-OM-10.28.2010-297069*
- LSO LCON-2 *Facility Representative Activity Observation/Surveillance, Task Header Replacements in Bldg 332, Room 1354, e-Pegasus ASRP-OM-6.29.2010-264356*
- LSO LCON-2 *Facility Representative Activity Observation/Surveillance, Room 1378 Activities, e-Pegasus ASRP-OM-7.28.2010-270944*
- LSO LCON-2 *Facility Representative Activity Observation/Surveillance, Closed Loop Cooling System Recovery Activities in Bldg 332, Workstation 7008, e-Pegasus ASRP-OM-9.1.2010-279512*
- LSO Work Control Continuing Training Records (3) LSO 1063.2, January 26, March 17, June 23, 2011
- LSO Continuing Training – Oversight of Work Control at the Activity Level (Briefing)
- LSO Briefing – New Site Office Processes for Planning and Performing Oversight of LLNL Contractor Assurance System Implementation
- LSO Briefing – *LSO Oversight Process*
- LSO Briefing – *Facility Operations*
- LSO memorandum to distribution from S. Lasell, *Implementation of Facility Operations Draft Processes*, COR-OM-5/25/2011-350500
- LSO ISMS and Work Control Assessment and Issue Analysis, July 11, 2011
- LSO Periodic Issues Report Summary – 7/18/2011
- LSO Periodic Issue Report (PIR) Detailed – 7/18/2011
- LSO Quarterly Operational Report, 1st Quarter FY11
- LSO Quarterly Operational Report, 2nd Quarter FY11
- LSO-210.2, *DOE Corporate Experience Program* (Draft)

- Assistant Manager for Technical Services' Memorandum, Re: Livermore Site Office Corporate Operating Experience Program, September 30, 2008
- Defense Nuclear Facilities Safety Board letter and report, Activity Level Work Planning, Lawrence Livermore National Laboratory, June 14, 2010
- Defense Programs letter and enclosures to the Defense Nuclear Facilities Safety Board, September 9, 2010
- *NNSA Activity Level Work Planning and Control Processes: Attributes, Best Practices, and Guidance for Effective Incorporation of Integrated Safety Management and Quality Assurance*, January 23, 2006
- DOE O 210.2A, *DOE Corporate Operating Experience Program*, 4/8/11
- ASRP-OM-4.29.2011-344181FR Weekly Oversight Activities of NMTP, February 28-March 4, 2011
- LSO WI 442.1 LSO Differing Professional Opinion Process, September 22, 2010
- Team Report on the Effectiveness and Livermore Site Office Oversight Use of the Lawrence Livermore National Laboratory Contractor Assurance System, June 22, 2010
- ACT-TS-6.7.2010-259777, Update and Revise LSO Operating Experience Procedure, (closed 7/27/10)
- LSO Training and Qualification Surveillance: Certification Records Review, March 2011
- LSO Facility Representative Program Self Assessment, January 25-27, 2011 Final Report
- LSO M 426.1 Livermore Site Office Technical Qualification Program
- ASRP-MO-10.3.2010-288460, LSO-5 Self Assessment – LSO DPO Process

Interviews:

- LSO Senior Technical Safety Advisor
- LSO Nuclear Maintenance Manager
- LSO Corrective Action Manager
- Assistant Manager for Facility Operations
- Superblock Facility Representative
- RHWM Facility Representative
- Tritium Facility Facility Representative
- Site 300 Facility Representative
- NMTP Facility Representative
- LSO Technical Training Manager
- Technical Services Team Lead
- Assistant Manager for ES&H, Acting
- LSO Contracting Specialist
- Program Analyst

Observations:

- LSO Periodic Issues Report (PIR) Meeting (7/20/11)
- RHWM Work Permit Approval Meeting – Program Maintenance (7/13/20)
- B331 Work Permit 331-10-D-048 –Remove/Install Glovebox Window Access Panels 7-14-11

Appendix E

Supplemental Information

Dates of the Review

July 11-21, 2011

Management

Glenn S. Podonsky, Chief Health, Safety and Security Officer
William A. Eckroade, Principal Deputy Chief for Mission Support Operations
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Quality Review Board

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HSS Team Composition

HSS Team Members

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NNSA Team Member

Jim Winter