Fermi Site Office
Oversight Program Plan

June 2011

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**FERMI SITE OFFICE
OVERSIGHT PROGRAM PLAN**

1.0   INTRODUCTION

The Fermi Site Office (FSO) maintains their knowledge of the management and operation of the Fermi National Accelerator Laboratory (Fermilab) by Fermi Research Alliance, LLC (FRA), through FSO Oversight. The term oversight is deliberately broadly characterized to be inclusive of a wide variety of methods for gaining knowledge of the full range of laboratory functions. Department of Energy (DOE) Order 226.1A, *Implementation of Department of Energy Oversight Program*, defines "DOE Oversight" as including "…operational awareness activities, onsite reviews, assessments, self-assessments, performance evaluations, and other activities…" This document describes FSO's comprehensive Oversight Program that meets the requirements of DOE Order 226.1A to establish, document, and implement an effective program to monitor and maintain cognizance of the status of environment, safety and health; safeguards and security; cyber security; and emergency management; and broadens the Order's applicability by including business operations. This Program also implements the applicable components of the DOE Office of Science (SC) Management System (SCMS) Quality Assurance and Oversight Management System (MS) and the Line Management Oversight Program Description. As additional SCMS subject areas and procedures are approved, the FSO Oversight Program Plan will be modified as necessary. As the laboratory's Contractor Assurance System (CAS) develops, the laboratory's own systems should be the primary oversight of operations. FSO will increasingly rely on these systems to provide day-today oversight. The key to success is the integration of FSO oversight activities with the contractors' by altering DOE and external oversight in order to avoid duplication.
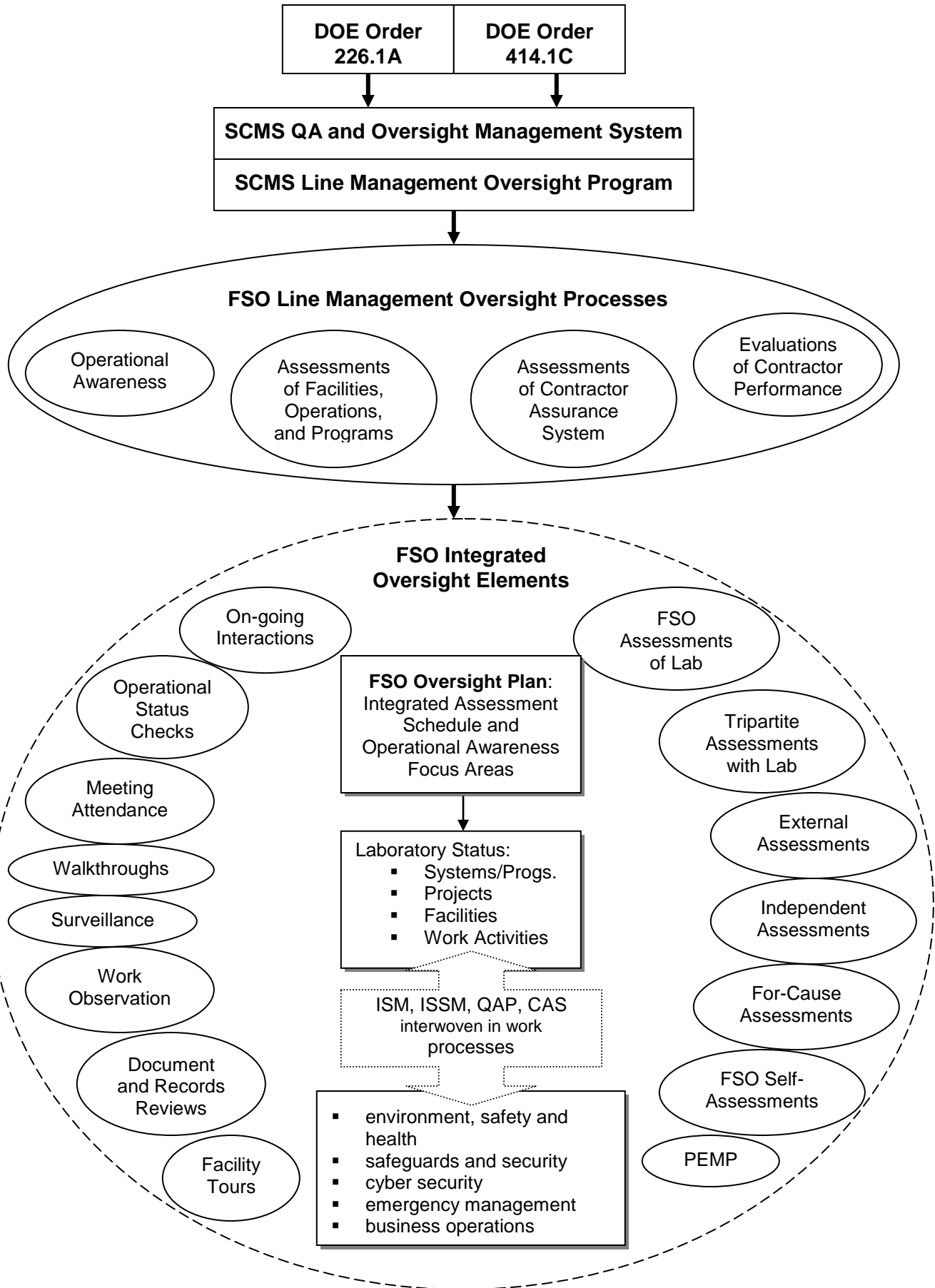
The *FSO Oversight Program Plan* is a comprehensive set of line management oversight processes that encompass on-going communications exchanges, assessments, frequent routine oversight activities (such as operational status checks, walkthroughs, and surveillances), document reviews, results of external assessments, and meeting attendance and participation to obtain knowledge and maintain cognizance of the status and planned changes of the complete range of functional areas managed by Fermilab.

Below are examples of the functional areas addressed by FSO oversight:

- Aviation
- Contractor Assurance System
- Accelerator Safety
- Business Operations
- Conduct of Operations
- Emergency Management
- Environment, Safety and Health
- Cyber Security/Information Technology
- Integrated Safety Management (ISM)
- Maintenance
- Project Management
- Property Management (Real and Personal)
- Quality Assurance (QA)

- Safeguards and Security
- Integrated Safeguards and Security Management (ISSM)

QA, ISM, Environmental Management System, ISSM, Cyber Security, Emergency Management, and Contractor Assurance Systems are focal points of the Oversight Program to ensure that these cross-cutting site management systems are integrated into management and work activities at all levels. The combination of planned assessments, annual evaluations of contractor performance and on-going operational awareness activities provide a complete and effective *FSO Oversight Program Plan*, as depicted in the following diagram.

DOE Order 226.1A | DOE Order 414.1C

SCMS QA and Oversight Management System

SCMS Line Management Oversight Program

FSO Line Management Oversight Processes

- Operational Awareness
- Assessments of Facilities, Operations, and Programs
- Assessments of Contractor Assurance System
- Evaluations of Contractor Performance

FSO Integrated Oversight Elements

- On-going Interactions
- Operational Status Checks
- Meeting Attendance
- Walkthroughs
- Surveillance
- Work Observation
- Document and Records Reviews
- Facility Tours

FSO Oversight Plan: Integrated Assessment Schedule and Operational Awareness Focus Areas

Laboratory Status:
- Systems/Progs.
- Projects
- Facilities
- Work Activities

ISM, ISSM, QAP, CAS interwoven in work processes

- environment, safety and health
- safeguards and security
- cyber security
- emergency management
- business operations

- FSO Assessments of Lab
- Tripartite Assessments with Lab
- External Assessments
- Independent Assessments
- For-Cause Assessments
- FSO Self-Assessments
- PEMP

The essence of the FSO program is confirmation fo the Contractor Assurance System effectiveness, thereby building upon, but not duplicating, the contractors' activities. The Oversight plan should ensure FSO insight into contractor activities and data sufficient to confirming the laboratory's systems

2.0   FERMILAB OPERATIONS

Work at Fermilab is performed under the terms of a performance-based management and operating (M&O) contract that is administered by the FSO Contracting Officer and Site Manager with the assistance of the FSO staff. FSO represents the government's interest in all interactions with Fermilab. The DOE expectation is that all research and support activities will be performed in accordance with the requirements of the contract.

Fermilab's mission is to advance the understanding of the fundamental nature of matter and energy by providing leadership and resources for qualified researchers to conduct basic research at the frontiers of high energy physics and related disciplines. Fermilab builds and operates the accelerators, detectors, and other facilities that physicists need to carry out forefront research in high-energy physics. Fermilab's operations include Energy Frontier facilities such as the Tevatron, where counter-rotating beams of protons and antiprotons produce collisions, as well as world-class neutrino production facilities at the Intensity Frontier, allowing scientists to examine the most basic building blocks of matter, and the forces acting on them. The Tevatron is cheduled to shut down at the end of fiscal year 2011. From 2012 to 2014, Fermilab's primary research focus willtransition from the Energy Frontier to the Intensity Frontier, with the construction of new experiments and for dark-matter particles and the origins of dark energy. Fermilab will also pursue research and development (R&D) for future particle accelerators and detectors to advance technology, enable future experiments and create innovations for the benefit of society. This type of research requires highly sophisticated tools, facilities, and operations. Research support activities include maintaining and operating site utilities and infrastructure, construction, environmental remediation/restoration and waste management. Collectively, these tools, facilities, operations and research support activities present diverse potential hazards to Laboratory workers and researchers.
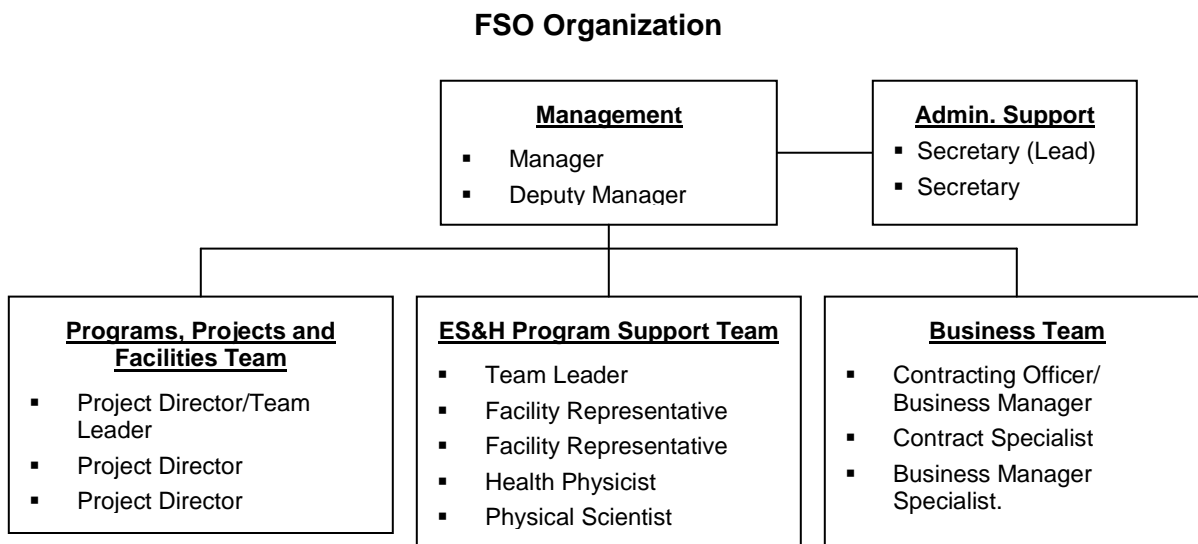
Security at Fermilab, a 6,800 acre site, also presents some challenges. The physical facilities range from areas "open to the public" to areas categorized and designated as "Areas of Security Interest", and "Property Protection Areas," the latter being locked and in which Fermilab badges must be worn. The Fermilab site is open to DOE, Laboratory employees and Users 24 hours a day. It is unfenced but does have road gates and staffed control points for off-hour access control. Buildings and other areas of security interest are protected by security guard patrols, locked doors, fences and/or security entry and duress alarms.

3.0   OVERSIGHT PROGRAM PLAN GOAL

The *FSO Oversight Program Plan* goal is to provide FSO with sufficient knowledge of site and contractor activities to make informed decisions concerning hazards, risks and resource allocation, provide direction to contractors, and evaluate contractor performance.

4.0   ROLES AND RESPONSIBILITIES

Oversight is integral to the job performance of each member of the FSO management and professional staff as they perform together as a virtual contract management team. FSO personnel responsible for oversight must be able to assess how effectively Fermilab is implementing ISM, ISSM, QA Program, CAS and other contractual requirements in the performance of work. Consequently, FSO personnel must maintain an awareness of Laboratory programs, operations, activities, and management systems including contracting and administration of the contract. Achieving this broad awareness necessitates on-going interaction with Laboratory management and with support and technical staff at all levels. FSO oversight roles and responsibilities are identified in the *FSO Functions, Responsibilities and Authorities Manual* (FRAM), *FSO Quality Assurance Program* (QAP), FSO Standard Operating Procedures (SOPs), position descriptions, and individual performance plans. An FSO organization chart is provided below which indicates generic titles of individuals within each grouping. Additional FSO staff responsibilities are defined in the *FSO Quality Assurance Program Plan, Section 3,"Functions and Responsibilities"*.

FSO Organization

Management	Admin. Support
▪ Manager	▪ Secretary (Lead)
▪ Deputy Manager	▪ Secretary

Programs, Projects and Facilities Team	ES&H Program Support Team	Business Team
▪ Project Director/Team Leader	▪ Team Leader	▪ Contracting Officer/ Business Manager
▪ Project Director	▪ Facility Representative	▪ Contract Specialist
▪ Project Director	▪ Facility Representative	▪ Business Manager Specialist.
	▪ Health Physicist	
	▪ Physical Scientist	

- **Management**

    The FSO Manager and Deputy Manager provide overall leadership for the *FSO Oversight Program* and participate in operational awareness activities. Their participation allows them to obtain current information on activities occurring on the site and set program expectations through direct observation of program implementation. This direct involvement promotes open communication with Fermilab and FSO staff, provides sustained awareness of Fermilab activities, and facilitates effective resolution of concerns.

    FSO management periodically assesses the volume and type of work compared to the current staff's time and expertise to determine if additional staff is required (i.e., discussions with Team Leaders and periodic staffing analysis efforts). FSO management also assesses oversight qualifications as described in SCMS QA and Oversight MS, and Oversight Skills Subject Area. If necessary, appropriate training is planned annually in Individual Development Plans (IDPs) to meet

applicable qualification standards, as identified in FSO SOP 1.2, *Technical Competency Program*.

FSO management ensures that the staff have the opportunity to attend training and professional development activities. These activities are intended to supplement individual experience and provide a means to maintain awareness of changes and advances in the various fields of expertise. Management utilizes Technical Qualification Standards and IDPs toward achieving this objective. For areas that FSO does not have expertise on staff, FSO management requests the assistance of subject matter experts from the Integrated Support Center (ISC) and/or from other site offices.

FSO management identifies measurable oversight-related objectives to be achieved by the management and staff of FSO each year in the *FSO Annual Performance Plan* (APP), as described in the SCMS QA and Oversight MS, SC Performance Planning and Evaluation Subject Area, Procedure 1. Preparing and Reviewing the SC Annual Performance Plan. FSO management flow-down APP objectives, measures and targets into specific performance elements and measures in each individual's performance plan. At the conclusion of each year, FSO management conducts a self-assessment of how well FSO did in meeting the APP commitments and reports the results in the *FSO Annual Assessment Report* (AAR), as described in the SCMS QA and Oversight MS, SC Performance Planning and Evaluation Subject Area,

- **Facility Representatives**

    FSO Facility Representatives (FacReps) are responsible for assessing and maintaining awareness of operations in assigned facilities and monitoring selected operations and construction activities consistent with FSO SOP 2.7, *FSO Facility Representative Program*. FSO FacReps spend the majority of their time performing oversight activities and, to avoid conflict, are not responsible for preparing the budget, work schedule or programmatic direction for assigned facilities.

- **Technical Specialists**

    FSO Technical Specialists are subject matter experts (SMEs) in at least one specific environment, safety and health (ES&H) area and may have training and experience in other technical areas. These SMEs are responsible for evaluating assigned contractor programs for compliance with applicable standards through on-going knowledge of the Fermilab technical programs and activities, attending meetings of Fermilab ES&H committees and sub-committees, and cultivating an awareness of developing issues and concerns. Leading or participating in FSO assessments is another major responsibility of the SMEs. The SMEs' knowledge gained through oversight facilitates the early identification and effective resolution of issues and concerns.

- **Project Directors**

   FSO Project Directors (FPDs) are responsible for oversight of Fermilab projects; including line item, major item of equipment, general plant, accelerator improvement and strategic laboratory infrastructure projects. FPDs attain certification, in concert with the requirements of the DOE Project Management Career Development Program. FPDs are responsible for project management activities for all assigned projects, including planning, initiation and completion, in accordance with applicable DOE O 413 requirements and SCMS Project Management procedures. FPDs initiate development and implementation of the Acquisition Strategy and Project Execution Plan; establish and lead the Federal Integrated Project Team; support definition and management of project objectives and technical scope, schedule, and cost baselines; recommend approval of Critical Decisions; monitor, evaluate and verify reported progress and provide additional reporting and assessment of project performance; and implements the project change control process. One FSO SOP utilized by the Project Directors is 2.1, *ES&H Oversight of Construction Activities* which describes conduct and documentation of walkthroughs to oversee project activities. The Project Directors serve as the point-of-contact with the Office of Science on project status.

- **Contracting Officers and Business Specialists**

   FSO Contracting Officers, with training and experience in contracts, property management, finance, human resources and procurement, are responsible for monitoring Fermilab compliance with DOE and legal business standards as set forth in the contract for management and operation of Fermilab. The Contracting Officers and Business Specialists monitor the use of acceptable business practices in allocation of the funding provided for activities on the Fermilab site, control the allocation of funds, monitor changes in contract scope, and determine whether specific Departmental requirements relating to contract administration are fulfilled. They coordinate the preparation of contractor performance measures and both semi-annual and annual reviews of performance against expectations. The Business Team personnel serve as the point-of-contact with the SC on business/administrative matters. Specific business operations oversight responsibilities are identified FSO SOPs 1.3, *FSO DOE Directives Processing System*.

5.0   OVERSIGHT PROGRAM PLAN

The *FSO Oversight Program Plan* consists primarily of an annually updated three-year schedule of planned assessments entered into the Integrated Assessment Schedule (IAS). The other elements of FSO oversight include a series of Tripartite assessments (see Section 7.1), which are not currently listed in the Integrated Assessment Schedule since no ISC support is normally requested for these, and a list of other activities that are performed to effectively perform evaluate the effectiveness of Laboratory performance.

- **Integrated Assessment Schedule (IAS)**

   FSO uses the risk-based approach described in SCMS QA & Oversight MS, Assessments Subject Area, Procedure 1. Analyzing and Scheduling Assessment

Needs to select the assessments of the Contractor and FSO. The rationale for the projected FSO Oversight Plan assessment schedule is documented in the IAS.

FSO's projected independent assessment activities, schedule, and needs are entered and updated in the SMART database at https://chip.ch.doe.gov/smart. FSO may make changes to its planned assessments due to such things as changes in programs or operations. All changes to the schedule require approval from FSO management.

- **Operational Awareness Focus Areas**

  Focus areas that are slated to receive increased attention during future walkthroughs may be based on identified issues and corrective actions from previous operational awareness activities, such as walkthroughs, or based on discussions during attendance at Fermilab ES&H sub-committee meetings. There are also inherent risks at the Laboratory that merit continuing or increased attention and areas that have been identified as needing DOE or SC-wide attention. Another factor considered in this regard is maintaining a balance between reviews of systems, programs, facilities, and work activities.

  Candidates for potential focus areas will be reviewed, discussed, and agreed upon annually. As FSO participates in routinely scheduled walkthroughs of areas and buildings, developed in conjunction with Fermilab contacts, attention will also be paid to evaluation of agreed-upon focus areas in addition to other observations specific to programs, projects, facilities, buildings or work activities.

6.0   OPERATIONAL AWARENESS ACTIVITIES

"Operational awareness" consists of a broad range of activities that provide opportunities for selective monitoring and evaluation of contractor operations and performance against expectations. These activities include evaluating work and work control processes to observe the effectiveness of Fermilab implementation of ISM, ISSM, CAS, and QA Programs, ensuring contractor compliance with requirements, monitoring performance, and ensuring the adequacy of contractor assurance systems. The types of operational awareness activities conducted include operational status checks, meeting attendance, walkthroughs, and surveillances, facility tours, document reviews and on-going daily interactions. These activities are documented in reports and summaries of significant results and may be shared with SC senior management and other DOE Headquarters offices responsible for specific functions, as appropriate. The processes for planning, conducting, documenting, and communicating FSO operational awareness activities are described below and in SCMS QA and Oversight MS, Operational Awareness Subject Area.

- **Operational Status Checks**

  Fermilab provides instantly available and daily reports of operational status. FSO management and staff can view Fermilab's status web-site at any time of day for up-to-the-minute operational status information. The Laboratory also provides a daily report to FSO each morning, reporting accelerator operational status for the previous 24 hours.

- **Meeting Attendance**

  Access to operational information is also available through attendance or participation in Fermilab management and staff meetings on research direction, management systems, resource allocation, work planning, project status, safety programs or performance measures. FSO management conducts weekly meetings with Fermilab's senior management that provide an opportunity to gather information on current and up-coming activities, as well as communicate expectations and raise concerns. Meetings with the contractor to discuss results from assessments (closeouts following reviews) and operational awareness activities (e.g., at the end of walkthroughs) provide a valuable opportunity to exchange information, discuss issues, set expectations, and set the stage for resolution of findings, concerns, and observations. FSO attendance at Fermilab ES&H sub-committee meetings also provides important information that may be used to focus FSO oversight activities. Fermilab meeting minutes (including attendance) are posted on the Fermilab ES&H webpage. FSO FacReps document meeting attendance in their FacRep Log and will report significant issues to management and document in the FSO electronic tracking system.

- **Walkthroughs**

  Walkthroughs involve observing conditions where work is being performed, interacting with contractor personnel responsible for performing work, and observing activities in progress. A schedule of walkthroughs is developed annually with each Division/Section at the Laboratory. FSO adjusts the schedule when necessary and some unannounced visits may be conducted. A monthly walkthrough schedule is updated and distributed to FSO management and staff. During the walkthroughs, general information on conditions associated with the work and on issues requiring additional evaluation is collected, providing a "snapshot" of workplace conditions. Although walkthroughs may focus on specific functional areas or disciplines, their most important use is to collect information on workplace activities, the concerns of the contractor workforce, and the status of on-going work. On occasion while participating on walkthroughs, observation of certain conditions or on-going activities in a work area may lead to a determination that a surveillance or more focused follow-on review is warranted. At the completion of each walkthrough, participants discuss the findings or observations with the Laboratory participants. A summary of observations and/or findings (if any) are documented in the FSO electronic action tracking system. Completion of corrective actions related to previous walkthrough findings are verified on a schedule based on the relative hazards. This may be immediate or during the next scheduled walkthrough. Follow-up discussions with Laboratory contacts occur to ensure that corrective actions have been completed. Walkthrough observations are periodically reviewed, trends are identified and discussed during FSO staff meetings. These results are shared with the Fermilab ES&H Section and utilized for future oversight activities..

- **Surveillances**

  A surveillance is a focused evaluation of a program, functional area, process, or job specific task to verify that the activity is effective in protecting the safety and health of the public, workers, and the environment, conforms to procedures and

best practices, and is in compliance with DOE standards and requirements. Surveillances are unscheduled, the Laboratory may or may not be notified in advance, and generally less detailed than assessments and reviews. Documentation of the event, any findings and a summary of results are entered into the FacRep Log and/or an action tracking system. Corrective actions are verified as completed during the next scheduled walkthrough of the area or through a follow-up program effectiveness review.

- **Facility Tours**

  FSO management and/or staff often accompany visitors or new FSO employees on tours of the Laboratory. Should any areas of concern be identified during those tours, they would receive for follow-up FSO walkthroughs or surveillances.

- **Document and Record Reviews**

  FSO management and staff review a multitude of documents and records related to the full range of Laboratory programs, systems and projects. When appropriate, the results are sent to the Laboratory and documented in an action tracking system. FSO balances document reviews with field or work observation activities to ensure that there is not an over reliance on the document review activities. As part of their oversight activities, FSO staff also access various DOE and Fermilab websites and databases which can contain useful information about Fermilab activities, status of addressing action plans, and details about reported incidents (e.g., illness or injuries, lessons learned, etc.). In addition, details about incidents at other laboratories are shared with Fermilab that could result in safety improvements or incident avoidance. These databases include, among others, the Occurrence Reporting and Processing System, the Noncompliance Tracking System, and the Lessons Learned Database.

- **On-going Interactions**

  Electronic mail, phone calls, and informal discussions/meetings are used by the Laboratory to quickly notify FSO of unusual events that are not communicated by the operational awareness activities listed above. Notification of these events may trigger additional unscheduled walkthroughs, surveillances or assessments, or may be noted for further investigation during the next scheduled assessment or operational awareness activity.

7.0   ASSESSMENTS OF THE CONTRACTORS

"Assessments" include evaluation of work and work control processes to determine the effectiveness of Fermilab implementation of ISM, ISSM, CAS, and QA Programs, ensure contractor compliance with contractual, business and legal requirements, monitor performance, and ensure the adequacy of CAS. The types of assessments conducted include Tripartite Assessments, Program/Focused Reviews, Readiness Reviews, Incident Reviews, Project Reviews, and Performance Evaluation Management Plan (PEMP) reviews. FSO management and staff annually prepare a list of assessments (e.g., functional areas in Section 1.0) FSO will conduct during the upcoming year and provide this list and schedule to Fermilab management. FSO assessments are documented in the IAS and Annual Performance Plan (APP).

FSO management determine the appropriate expertise required, assign staff members (and/or request assistance) to establish assessment teams. Assessment teams develop appropriate assessment criteria prior to initiating assessments using requirements in applicable DOE Directives, industry standards, Fermilab's procedures/manuals best management practices, and other relevant documents. Upon completion of field work, assessments results and shared with the Laboratory, SC senior management and other DOE Headquarters offices responsible for specific functions, as appropriate.

- **Tripartite Assessments**

  Fermilab performs self-assessments on an on-going basis to identify environment, safety and health program or system weaknesses and potential opportunities for improvements in practices and processes. In Tripartite Assessments, FSO staff participate directly in the planning and execution of these assessments. [Note: Under Fermilab's ISO 14001 certification, changes were made to the Tripartite self-assessment process. As a result, Divisions/Sections still participate in selecting the assessment topics for themselves, but the reviewers conducting the assessments are now independent of the division/section being assessed.] These assessments are planned well in advance and benefit from information derived from operational awareness activities and staff (both FSO and Fermilab) knowledge of operations. FSO reviews the effectiveness of the Fermilab self-assessment program and the Tripartite Assessments to obtain additional insight into on-going operations and provide feedback to Fermilab when expectations are not being met.

- **Program/Focused Reviews**

  Program and focused reviews are planned, scheduled and performed by FSO staff with the assistance of the ISC or other DOE Site Office staff. In addition, other entities, such as DOE Headquarters, Fermilab, or another external organization, may conduct or participate in program or focused reviews.

  FSO reviews are proposed, prioritized, and selected based on such factors as: analysis of hazards, risks, and past performance of organizations, programs, and facilities, including previous assessment results; specific DOE-suggested program review frequencies; observations of possibly isolated system weaknesses which might indicate broader program-wide weaknesses; and functional areas in which SC has highlighted a need for special attention or focus.

  Program reviews are in-depth assessments of the effectiveness of a laboratory-wide program, such as ISM and contractor assurance systems, to identify program strengths, weaknesses and opportunities for improvement. Focused reviews generally assess specific aspects of a laboratory-wide program rather than the whole program. A focused review may provide an assessment of a particular concern, hazard control, or procedure. (See FSO SOP 2.3, *Conducting Assessments of Laboratory Programs*)

  When program or focused reviews are conducted by other organizations, FSO staff usually participates in those reviews. In some instances, external expertise

on reviews can result in functional area reports which, if reviewed by appropriate FSO staff, can augment FSO knowledge of site conditions and trends.

- **Readiness Reviews**

  Readiness Reviews determine whether new or significantly modified operations, activities, or facilities can be operated safely or that facility operations may resume after having been suspended for safety reasons. Accelerator readiness reviews may involve review of Safety Assessment Documents (SADs), Accelerator Safety Envelopes (ASEs), shielding assessments, operational procedures, and other program documents as necessary. These efforts may also entail observation of work activities, evaluation of personnel training and qualification, walk-downs of systems and equipment, and interviews with personnel. Participation may be as an individual reviewer or as a member of an independent review team. (See FSO SOP 2.2, *Operations Authorization*)

- **Incident Reviews and Accident Investigations**

  An incident may include an accident or injury, environmental release, damage to equipment or structures, or failure of safety systems to perform as intended. An incident review includes an identification of causes, examination of the incident response and development of a corrective action plan to prevent recurrence. An incident review may also be used to assess the effectiveness of Fermilab programs linked to the incident to identify weaknesses in Laboratory programs and opportunities for improvement. Accident investigations involving employee injuries are similar to incident reviews but require a more in-depth review because an accident is usually a more serious event. (See also FSO SOP 3.3, *Occurrence Reporting and Processing*.)

- **For-Cause Reviews**

  For-cause reviews are unscheduled assessments in response to any condition, incident, or trend that poses or may pose an imminent danger to people, property, the environment, or the operational integrity of a facility within the Laboratory or as requested by the Site Office Manager, line management, or other authorized program personnel. The chartering official appoints the Assessment Team Leader, as a minimum, and may appoint the members of the team.

- **Quarterly Self-Assessment Reviews**

  Quarterly Self-Assessments are performed on a pre-determined schedule for the calendar year. This schedule is included in this document as Attachment 1. These assessments are required by the Fermilab Integrated Quality Assurance (IQA) Program and the Fermilab Integrated Contractor Assurance Program (FICAP). Fermilab management (i.e., Directorate and Divisions/Sections/Centers heads) are expected to regularly assess the performance of their organizations to identify and correct problems that would hinder their organizations from achieving their mission, objectives, and performance requirements. FSO receives these assessments and distributes them to the respective Team Leaders. The

assessments are reviewed and feedback is provided on the Performance Evaluation Template. A copy of the Template is included as Attachment 2. The Laboratory is reviewed on the adequacy of the self-assessment along with providing program feedback.

8.0   PERFORMANCE EVALUATION MANAGEMENT PLAN (PEMP)

The qualitative review of performance data over extended periods of time may allow for the detection of trends or patterns that could indicate an operational concern. Performance expectations are established through the development and approval of required program documents such as QAP, ISM, and ISSM. FSO personnel annually develop contract performance measures and metrics in a formal PEMP for the DOE contract with Fermi Research Alliance, LLC (FRA). Established performance measures are periodically reviewed to ensure performance objectives and criteria are challenging and focused on improving performance in known areas of weakness. Standard mandatory SC measures are supplemented by FSO measures developed specifically for Fermilab using the process. FSO monitors contractor performance and evaluates Fermilab performance against the PEMP measures. Previously conducted assessments and operational awareness activities can be a data source for such an analysis. Through the PEMP process, deficiencies are documented, brought to the attention of Fermilab management and monitored to ensure that they are addressed in a timely manner.

9.0   FSO SELF-ASSESSMENTS

FSO is committed to performing periodic self-assessment of the Fermi Site Office management systems. The purpose of the self-assessments is to determine the effectiveness of FSO oversight functions, roles, and responsibilities.

FSO will periodically review the Office's Standard Operating Procedures (SOPs) to assure they align with the DOE SCMS procedures and reflect FSO's current oversight functions. FSO SOPs will be reviewed on a tri-annual basis, with a subset of the total to be reviewed each year. The SOP review schedule will be tracked within the FSO SMART system. The SOP review process will also consider operation and requirement changes that may impact FSO oversight roles and responsibilities.

The responsibilities for the accomplishment of FSO self-assessments are as follows:

The FSO Manager/Deputy Site Manager

- Develops the annual Self-Assessment Plan with input from FSO staff.
- Approves the FSO Self-Assessment Plan and distributes as required.
- Assures that the FSO Oversight Program Plan is maintained and updated.

FSO Team Leaders

- Coordinate the self-assessment activities in their area of responsibility.
- Summarize the self-assessment results from their team members.
- Submit the results of their team's self-assessment activities to the FSO Manager/Deputy Site Manager.

- Enter the corrective actions (if any) resulting from the self-assessment into the FSO action tracking system.

FSO Staff

- Provide input to FSO Manager/Deputy Site Manager/FSO Team Leader for the annual Self-Assessment Plan.
- Conduct self-assessments.
- Document the results of the self-assessment.

Upon completion of the self-assessment, each SOP/Program/Manual document will be revised as necessary. The results of the self-assessment will be documented on Attachment 1, "Periodic Review of Fermi Site Office (FSO) SOPs, Program/Manual Documents, and SOP Termination" to assure the necessary changes are captured and to document the review date. Significant changes to FSO SOPs Program/Manual Documents will be communicated to affected staff via e-mails, staff meetings, and through the Attachment 2 form that will be routed for their concurrence. In the event that a SOP or Program/Manual document is identified for removal, Attachment 1, "Periodic Review of Fermi Site Office (FSO) SOPs, Program/Manual documents, and SOP Termination" will be completed and approved by FSO management.

The results of the self-assessment will be addressed in the FSO Annual Assessment Report. Corrective actions resulting from the self-assessment will be documented in the FSO action tracking system and included as action items in the FSO Annual Performance Plan (APP).

10.0   OVERSIGHT PROGRAM PLAN INFRASTRUCTURE

The FSO organizational infrastructure is designed to support implementation of the *FSO Oversight Program Plan*. The supporting infrastructure includes DOE Directives; SCMS; the Laboratory contract; and FSO Program/Manual documents, procedures, plans, and information management systems. The infrastructure is important for understanding and communicating management directions and expectations, and for ensuring accountability for personnel involved. The supporting infrastructure includes the documents described below.

- **DOE Directives**

    DOE Notices, Policies, Orders, Manuals and Guides are official communications of policies, requirements, and procedures. The policies, orders, manuals, and guides applicable to the operation of the Site Office are the basis for the FSO Program/Manual documents and SOPs. The Directives that are applicable to Fermilab (those listed in their contract) are a basis for the oversight criteria used by FSO in assessments and operational awareness activities.

- **SCMS**

    The FSO Oversight Program Plan implements the applicable components of the DOE-SC *Quality Assurance and Oversight* Management System and the *Line Management Oversight* Program Description. FSO management will monitor the

implementation of related SCMS Subject Areas and Procedures as they are approved/modified and adjust the FSO Oversight Program Plan as necessary to ensure continued alignment with SCMS.

- **FSO Program/Manual Documents**

  FSO Program/Manual documents are developed and maintained to provide the framework for FSO operations and implementation of programmatic initiatives. This Oversight Program Plan is integrated with the FSO ISMS Program Description, FSO FRAM, the FSO QAP, FSO Aviation Safety Implementation Plan, the FSO Emergency Plan, Federal Employee Occupational Safety and Health (FEOSH) Implementation Plan, and Continuity of Operations Program, and the set of FSO SOPs that tier from and are consistent with DOE Directives and SCMS.

- **FSO Standard Operating Procedures (SOPs)**

  FSO SOPs document the formal, structured approach for FSO's implementation of DOE and SC requirements, guidance and procedures for oversight, and the related FSO procedural infrastructure. SOPs are prepared, approved, and maintained in accordance with the process specified in FSO SOP 1.1, *Fermi Site Office Standard Operating Procedure System.*

- **DOE/FRA Contract**

  DOE has a performance-based contract with FRA for the safe, effective, and efficient operation of Fermilab. The requirements stated in the contract are a basis for the criteria used in FSO's assessments and operational awareness activities.

- **FSO Annual Performance Plan (APP)**

  The FSO APP serves as the primary FSO document that articulates what FSO will do in the current fiscal year to address corporate priorities and manage the Fermilab prime contract with DOE's contractor (i.e., FRA). As such, it communicates FSO contributions to the DOE mission, establishes performance commitments that support DOE, SC, and FSO priorities and goals, and identifies the assessments planned for the fiscal year (in the Integrated Assessment Schedule). The plan also serves as the basis for flow-down of individual performance expectations.

- **FSO Annual Assessment Report (AAR)**

  FSO conducts a self-assessment of its performance results in an AAR. The report identifies noteworthy accomplishments or results, challenges and/or major concerns, as well as actions taken to mitigate vulnerabilities or improve performance.

- **Individual Performance Plans**

   Each FSO employee has a documented performance plan that aligns personal performance objectives and measures with FSO objectives and targets as identified in the FSO Annual Performance Plan; and performance attributes aligned with DOE core values. Performance is evaluated and rewarded based on results achieved each year.

- **Information Management Systems**

   Manual and electronic information management systems, such as the FacRep Log and the FSO electronic action tracking system, are utilized to document the results of oversight activities and track issues to completion. The data are screened, tracked, and used to illustrate trends that may indicate potential programmatic or system weaknesses.

   The automated Integrated Assessment Schedule (IAS) is used to plan assessments in a three-year rolling schedule. Any modifications to the schedule are discussed with and approved by FSO management prior to making changes in the system.

11.0   CONTINUOUS IMPROVEMENT OF THE LABORATORY THROUGH OVERSIGHT

In the course of conducting assessments, operational awareness activities and the PEMP process, FSO identifies ways to make Fermilab's programs more effective and efficient through improved performance. These opportunities for improvement are documented in walkthroughs and surveillance summaries, assessment reports, and contractor performance evaluations. Most of this information is formally provided to Fermilab for resolution of deficiencies through formal reports and the structured issues management process described in FSO SOP 2.3, *Conducting Assessments of Laboratory Programs.* Corrective actions are verified by FSO. DOE SCMS QA and Oversight MS, Issues Management Subject Area provides a complete description of the processes involved in managing issues or findings identified through oversight activities. FSO management and staff share walkthrough results with the Fermilab line management staff accompanying them on walkthroughs, and track findings/issues to closure within the FSO action tracking system.

Lessons learned are gleaned through experience gained from assessments and operational awareness activities. The purpose of lessons learned is to share and use knowledge derived from experience to promote the recurrence of desirable outcomes and preclude the recurrence of undesirable outcomes. Use of lessons learned is an important component of the FSO culture that is committed to continuous improvement of both FSO and Fermilab operations.

12.0   COMMUNICATION

One of the products of the *FSO Oversight Program Plan* is knowledge. An important aspect of the Oversight Program Plan is the effective communication of that knowledge with FSO management and staff, SC management and DOE functional area management or staff, and the Laboratory. FSO conducts weekly internal Management Meetings and Staff Meetings to ensure an effective communication channel remains

open within the Office. For external communications, FSO management uses a graded approach that considers hazards and risks to determine the appropriate technical information to be shared and the appropriate distribution. FSO management meets at least weekly with Fermilab management to discuss issues and follow up on the status of Laboratory responses to formal FSO requests. Disputes arising over significant issues are resolved using the formal structured process identified in FSO SOP 2.9, *Resolving Differing Professional Opinions on Technical Issues.*

FSO prepares and submits monthly operational status reports, known as "management updates" with detailed operational accomplishments and status information to the Undersecretary for Science and other senior SC management. In addition, weekly report information is provided to the Chicago Office to be combined with other Site Office information and reported to SC Headquarters.

When it is appropriate, information gained through oversight processes may be shared with community stakeholders and media in accordance with FSO SOP 2.8, *Implementation of and Compliance with NEPA.*

13.0   EMPLOYEE CONCERNS

When applicable, employee concerns that arise during assessments or operational awareness activities will be assessed by the FSO designated Employee Concerns Program Manager. FSO may choose to address the concern directly or elevate it through the Employee Concerns Program Manager in the ISC (Chicago Office).

14.0   SELF-ASSESSMENT OF THE *FSO OVERSIGHT PROGRAM PLAN*

Oversight program plan activities are conducted, reviewed, and discussed regularly by FSO management and staff. In addition to discussing ways to improve the management and operation of Fermilab, such discussions may uncover shortcomings in the *FSO Oversight Program Plan.* Potential opportunities to improve the effectiveness and efficiency of the *FSO Oversight Program* Plan are presented to FSO management and staff for information, discussion, and action as they arise. Suggested actions to improve the program are reviewed and approved (or disapproved) by FSO management. Approved actions are documented in an action tracking system and implemented as scheduled. This assessment process results in continuous improvement of this Oversight Program Plan.

On-going program monitoring is augmented by an annual documented *FSO Oversight Program Plan* self-assessment to ensure that the program complies with DOE requirements for oversight of ES&H, safeguards and security, cyber security, emergency management, and business management. Resulting issues are documented in an action tracking system and monitored through completion.

Self-assessment of the *FSO Oversight Program Plan* has been incorporated as a part of the broader FSO annual self-assessment. Selected FSO improvement actions resulting from that self-assessment effort are incorporated into the FSO APP as commitments to SC for the following fiscal year.

15.0   REFERENCES

- DOE P 226.1A, *Department of Energy Oversight Policy*
- DOE O 226.1A, *Implementation of Department of Energy Oversight Policy*
- DOE O 414.1C, *Quality Assurance*
- DOE P 450.4, *Safety Management System Policy*
- DOE P 470.1, *Integrated Safeguards and Security Management (ISSM) Policy*
- DOE O 470.4A, *Safeguards and Security Program*
- DOE-STD-1063-2006, *Facility Representatives*
- SCMS Quality Assurance and Oversight Management System and the Line Management Oversight Program Description
- SCMS QA & Oversight MS, Assessments Subject Area, Procedure 1. Analyzing and Scheduling Assessment Needs
- SCMS QA and Oversight Management System, Oversight Skills Subject Area
- SCMS QA and Oversight Management System
- SCMS QA and Oversight Management System, Issues Management Subject Area
- CH Order 442.1, *Employee Concerns Management System*
- *FSO Functions, Responsibilities and Authorities Manual*
- *FSO Integrated Safety Management System (ISMS) Program Description*
- *FSO Quality Assurance Program*
- *FSO Oversight Plan*
- *FSO Emergency Response Plan*
- *Aviation Safety Implementation Plan*
- FSO Annual Performance Plan
- FSO Annual Assessment Report
- Fermi Site Office Standard Operating Procedures (SOP)
- FSO SOP 1.1, *Fermi Site Office Standard Operating Procedure System*
- FSO SOP 1.2, *Procedure for theTechnical CompetencyProgram*
- FSO SOP 1.3, *FSO DOE Directive Processing System*
- FSO SOP 2.1, *ES&H Oversight of Construction Activities*
- FSO SOP 2.2, *Operations Authorization*
- FSO SOP 2.3, *Conducting Assessments of Laboratory Programs*
- FSO SOP 2.5, Reserved
- FSO SOP 2.7, *Facility Representative Program*
- FSO SOP 2.8, *Implementation of and Compliance with the NEPA*

- FSO SOP 2.9, *Resolving Differing Professional Opinions on Technical Issues*
- FSO SOP 3.1, *Stop-Work Authority*
- FSO SOP 3.3, *Occurrence Reporting and Processing*
- FSO SOP 3.4, *Oversight of Corrective Action and Lessons Learned Programs*
- DOE M&O Contract DE-AC02-07CH11359 with FRA

FERMILAB MANAGEMENT SYSTEMS TO BE ASSESSED BY QUARTERS

1st Quarter

Financial Systems
        Budget
        Accounting

Emergency Management Systems

Foreign Visits & Assignments

Stakeholder Communications

2nd Quarter

Support Services Systems
        Legal

Security
        Safeguards

Project Management Systems

Programmatic Operations & Maintenance
        Accelerator Operations / Maintenance
        Engineering (Accelerators / Detectors)
        Magnet Design, Construction & Testing

Management Information Systems (MIS)
        Business Computing Systems

3rd Quarter

Human Resources
        Training

Workforce Planning

Security
        Property Protection

Infrastructure
        Routine Maintenance
        Energy Conservation

Programmatic Operations & Maintenance
       Detector Operations / Maintenance
              CDF Detector Operations & Maintenance
              D0 Detector Operations & Maintenance
              MiniBooNE Operations
              MINOS Operations & Maintenance

Scientific Computing
       Hardware Management
       Software Management
       Network Management

4th Quarter

Human Resources
       Compensation
       Benefits
       Employment
       Equal Opportunity / Counseling
       Diversity

ES&H (Lab-wide)

BALANCED SCORECARDS – USE NORMAL DUE DATES
       Property
       Procurement

ATTACHMENT 2

Fermi National Accelerator Laboratory
Contract No. DE-AC02-07CH11359
Performance Evaluation

2nd Quarter Evaluation

Measure Evaluated (if applicable):_____

Fermilab Self-Assessed Grade: _____

Self-Assessment Analysis *(Evaluation of the Lab's self assessment process):*

Does Fermilab's Self-Assessment for this process meet the following expectations?

    a.   Description of the program/project/activity and its status.
    b.   Description of the basis for determining performance, i.e., procedures, statistics, etc.
    c.   Identification of successes.
    d.   Identification of weaknesses and improvement needs, [including means to achieve performance improvements and implementation schedules].
    e.   Identification of the path forward (e.g., plan, schedule) to address needs.

        Yes, fully _____   Yes, partially _____   No _____

Comments: _____

_____

Program Analysis *(Evaluation of the Lab's programmatic area)***:**
Comments here:

_____

_____

Referenced or Attached Supporting Documentation: _____

_____

Supporting Reviews:_____

_____

Other Support, if applicable: _____

_____