



# U.S. Department of Energy

Oak Ridge Office

ORO O 220 Chapter XII
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**SUBJECT: PROJECT SAFETY OVERSIGHT PLANS**

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1. PURPOSE. This Chapter correlates to DOE O 226.1, IMPLEMENTATION OF DEPARTMENT OF ENERGY OVERSIGHT POLICY, dated September 15, 2005. The purpose of this document is to establish the expectation within the Oak Ridge Office (ORO) for the development of a Project Safety Oversight Plan (PSOP) to protect the public, workers, environment, and national security assets and to ensure continuous improvement. It is the intent of the PSOP to aid in effective utilization of the Integrated Project Team (IPT) by providing a suggested outline for the oversight plan and suggested areas for conducting oversight. Department of Energy (DOE) oversight processes are to be developed utilizing a graded approach that will be effective and efficient and will take into account project hazards and risks (including risks associated with potentially hazardous activities and risks to DOE missions including schedule, cost, and scope uncertainties).
2. CANCELLATION. None.
3. APPLICABILITY. This Chapter applies to all project safety oversight for projects as defined in DOE O 413.3, Change 1, PROJECT MANAGEMENT FOR THE ACQUISITION OF CAPITAL ASSETS. Other oversight activities not identified in this Chapter will be accomplished utilizing existing DOE and ORO Directives and processes, such as ORO M 220.1, OAK RIDGE OFFICE ASSESSMENT PROGRAM MANUAL. In addition, Attachment 1, of this Chapter, lists suggested functional areas and sub-areas that should be considered when developing project oversight areas.

This Chapter does not apply to tenants and lessees.

This Chapter covers such operational aspects as environment, safety, and health; safeguards and security; cyber security; emergency management; information technology; and business operations.

4. RESPONSIBILITIES.
  - a. Assistant Manager, Responsible for the Project, will ensure that a Project Director is named for each project that will be responsible for implementation of the requirements of this Chapter.
  - b. Assistant Managers, ORO, will designate an IPT for each project that will be responsible for monitoring the safety performance and hazards resulting from operations or activities. The team membership should comprise representatives from all the business and technical disciplines such as contracts, safety, environmental, facility representatives, safety system oversight, subject matter experts, and others necessary for successful execution of the project. Each IPT will utilize contractor provided information coupled with analysis and trending of issues/findings to prioritize and integrate the oversight activities of all project resources.

- c. Project Director.
    - (1) Ensure IPT members are in place.
    - (2) Ensure requirements of this Chapter are implemented.
    - (3) Ensure project issues, as a result of the PSOP, are communicated to the Assistant Manager responsible for the project and other Assistant Managers, as necessary.
  - d. Integrated Project Team Members.
    - (1) Implement stop work authority to allow workers to stop work when any condition has caused or poses imminent danger to people, property, the environment, or the operational integrity of a facility. The IPT shall ensure that any stop work authority exercised is exercised in a justifiable and responsible manner.
    - (2) Observe operations/activities in their areas of expertise/roles/responsibilities including but not limited to work planning and control, and lesson learned activities.
    - (3) Review project activities to assist in determining oversight.
    - (4) Evaluate compliance with established regulations.
    - (5) Perform periodic reviews of operations/activities.
    - (6) Document oversight activities and issues identified to make informed decisions about corrective actions that will improve the effectiveness and efficiency of the project.
    - (7) Maintain open communications with all parties by utilizing effective processes for communicating issues to the Project Director and, as necessary, their management using a graded approach that considers hazards and risks.
5. REQUIREMENTS AND PROCEDURES. All ORO programs must conduct Federal project oversight of DOE contractor activities to maintain field operational safety awareness, to address and resolve site vulnerabilities and safety issues, and to ensure contractor implementation of: (1) DOE safety requirements; (2) related contract provisions; (3) approved safety basis; (4) approved safety management programs; (5) work controls and procedures; and (6) mission objectives. To aid in structured Federal project oversight, it is expected that a PSOP will be developed.

The PSOP should be designed to evaluate performance against requirements and performance objectives, which may include laws, regulations, national standards, existing DOE and ORO Directives and processes, DOE approved plans and program documents, site specific procedures/manuals, criteria review and approach documents, other contractually mandated requirements, and contractual performance objectives. To aid in the development of this plan, a suggested outline is provided in Attachment 2, of this Chapter.

The PSOP should provide the following:

- A comprehensive and rigorous assurance system;
- Integration into the Integrated Safety Management for the project;
- DOE field oversight processes, such as meetings, inspections, reviews, surveillances, assessments, and walkthroughs that evaluate a project's effectiveness and compliance with work packages, project management plans, and other project documentation;
- Safe and secure project activities;
- Establishment of roles and responsibilities of IPT;
- Appropriate documentation (ranging from field log books to formal documentation, etc.) of oversight activities and issues identified during oversight utilizing existing ORO systems such as Oak Ridge Issues, Open Items, and Nonconformances (ORION) and contractor issues management systems;
- Additional rigor and appropriate safety basis documentation for high consequence activities, such as high hazard nuclear operations; and
- Change control process for changes made to the PSOP.

6. REFERENCES.

- a. DOE P 226.1, DEPARTMENT OF ENERGY OVERSIGHT POLICY, dated June 10, 2005.
- b. DOE O 413.3, Change 1, PROJECT MANAGEMENT FOR THE ACQUISITION OF CAPITAL ASSETS, dated October 13, 2000.
- c. DOE M 413.3-1, PROJECT MANAGEMENT FOR THE ACQUISITION OF CAPITAL ASSETS, dated March 28, 2003.
- d. DOE O 414.1C, QUALITY ASSURANCE, dated June 17, 2005.
- e. DOE O 440.1A, WORKER PROTECTION MANAGEMENT FOR DOE FEDERAL AND CONTRACTOR EMPLOYEES, dated March 27, 1998.
- f. ORO M 100, Revision 1, ORO MANAGEMENT SYSTEM DESCRIPTION, dated September 9, 2005, and any subsequent revisions.
- g. ORO M 220.1, OAK RIDGE OFFICE ASSESSMENT PROGRAM MANUAL, dated June 20, 2006, and any subsequent revisions.
- h. ORO O 450, Chapter V, Change 2, ORO INTEGRATED SAFETY MANAGEMENT PROGRAM, dated June 16, 2005, and any subsequent revisions.

7. DEFINITIONS.

- a. **ASSURANCE SYSTEM.** A system that encompasses all aspects of the activity and is designed to identify deficiencies and opportunities for improvement, report deficiencies to the responsible managers, and complete corrective actions effectively.
- b. **GRADED APPROACH.** Flexible process that permits a project to have a more or less rigorous application of management controls, depending on project's uniqueness and risks, while keeping the project's goal in mind.
- c. **INTEGRATED PROJECT TEAM.** A team of knowledgeable and skilled professionals representing diverse disciplines with the specific knowledge, skills, and abilities necessary to support the successful execution of projects.
- d. **OVERSIGHT.** Activities performed by DOE organizations to determine whether Federal and contractor programs and management systems, including assurance and oversight systems, are performing effectively and/or complying with DOE requirements. Oversight programs include operational awareness activities, onsite reviews, assessments, self-assessments, performance evaluations, and other activities that involve evaluation of contractor organizations and Federal organizations that manage or operate DOE sites, facilities, or operations.
- e. **PROJECT.** In general, a unique effort that supports a program mission, having defined start and end points,; undertaken to create a product, facility, or system; and containing interdependent activities planned to meet a common objective or mission. Project types include planning and execution of construction, renovation, modification, line items for maintenance and repair, environmental restoration, decontamination and decommissioning efforts, information technology, and large capital equipment or technology development activities. Tasks that do not include the above elements, such as basic research, grants, ordinary repairs, maintenance of facilities, and operations are not considered projects.
- f. **RISK.** A measure of the potential inability to achieve overall project objectives within well defined cost, schedule, and technical constraints.
- g. **SCHEDULE.** A plan that defines when specified work is to be done to accomplish program objectives.

8. CONTRACTOR REQUIREMENTS DOCUMENT. None.

9. ATTACHMENTS.

- a. Attachment 1 – Functional Areas and Sub-Areas.
- b. Attachment 2 – Project Safety Oversight Plan Outline.

## **FUNCTIONAL AREAS AND SUB-AREAS**

### **Administration**

#### **Conduct of Operations**

- Communications
- Control Area Activities
- Control of Equipment and System Status
- Control of On-Shift Training
- Equipment and Piping Labeling
- Independent Verification
- Investigation of Abnormal Events
- Lockouts and Tagouts
- Logkeeping
- Notifications
- Operations Aspects of Facility Chemistry
- Operations Organization and Administration
- Operations Procedures
- Operations Turnover
- Operator Aid Postings
- Required Reading
- Shift Routines and Operating Practices
- Timely Orders to Operators

#### **Criticality Safety**

#### **Emergency Management**

#### **Environment**

- Affirmative Procurement
- Comprehensive Environmental Response, Compensation, and Liability Act
- Clean Air
- Clean Water
- Emergency Planning and Community Right-To-Know Act
- Federal Insecticide, Fungicide and Rodenticide Act (Pesticides)
- Hazardous Waste Storage Area
- Pollution Prevention
- Resource Conservation and Recovery Act
- Safe Drinking Water
- Toxic Substances Control Act/Polychlorinated Biphenyls
- Underground Storage Tanks
- Waste Management
- Waste Management/Waste Minimization
- Waste Management/Waste Characterization
- Waste Management/Wastewater Treatment
- Waste Management/Inspections
- Waste Management/Recordkeeping
- Waste Management/Regulatory Reporting
- Waste Management/License/Permit/Regulatory Operating Requirements

**FUNCTIONAL AREAS AND SUB-AREAS**

**Facility Safety**

- Authorization Basis
- Documented Safety Analysis
- Potential Inadequacy in the Safety Analysis
- Unreviewed Safety Question

**Finance**

**Fire Protection**

- Administrative Controls
- Emergency Response and Preparedness
- Fire Protection Design
- Hazards Identification and Control
- Inspection, Testing, and Maintenance
- Management and Administration
- Procedures and Training
- Safety Basis and Fire Hazards Analysis

**Industrial Hygiene**

- Biohazards
- Blood Borne Pathogens
- Chemical Safety
- Confined Space
- Ergonomics
- Hazard Communication
- Hazardous Waste Operations
- Laboratory Standard
- Laser Safety
- Noise/Hearing Conservation
- Nonionizing Radiation
- Occupational Health/Medicine
- Respiratory Protection
- Thermal Stresses
- Toxic and Hazardous Substances
- Ventilation/Local Exhaust

**Industrial Safety**

- Compressed Gases
- Electrical
- Fall Protection/Walking Surfaces
- Hand and Power Tools
- Hoisting and Rigging/Cranes
- Machine Guarding
- Materials Handling
- Personal Protective Equipment
- Scaffolding
- Stairways/Ladders
- Welding/Cutting

**Maintenance**

**Packaging and Transportation**

## **FUNCTIONAL AREAS AND SUB-AREAS**

### **Quality Assurance**

- Criterion 1—Program
- Criterion 2—Personnel Training and Qualification
- Criterion 3—Quality Improvement
- Criterion 4—Documents and Records
- Criterion 5—Work Processes
- Criterion 6—Design
- Criterion 7—Procurement
- Criterion 8—Inspection and Acceptance Testing
- Criterion 9—Management Assessment
- Criterion 10—Independent Assessment
- Suspect/Counterfeit Items
- Safety Software Quality

### **Radiation Protection**

- Emergency Exposures
- Entry Control
- Contamination Control
- Internal and External Exposure Standards
- Management and Administration
- Plans and Procedures
- Radiation Safety Training
- Records and Reports
- Sealed Radioactive Source Control
- Surveillance, Assessment, and Maintenance

### **Safeguards and Security**

## **PROJECT SAFETY OVERSIGHT PLAN OUTLINE**

Each project shall have an effective Project Safety Oversight Plan (PSOP) where a graded approach can be utilized. The length of the plan will vary depending on the scope and complexity of the project. Below is a list of suggested items to include in a PSOP.

### **FRONT PAGES.**

**Change Log** – The change log will track all revisions to the PSOP. The log should include the revision number and a brief description of the change.

**Table of Contents** – Self-explanatory.

**List of Acronyms** – Self-explanatory.

### **BODY OF PROJECT SPECIFIC SAFETY OVERSIGHT PLAN.**

- 1.0 Background** – Provide a brief description of the project type (new construction, decontamination and decommissioning, etc.), expected hazards, project complexity, etc.
- 2.0 Purpose** – State the purpose of the PSOP, including a general description of the oversight activities that will be conducted.
- 3.0 Roles and Responsibilities** – Identify Integrated Project Team (IPT) members, their roles and responsibilities, and the project reporting relationships and authorities.
- 4.0 Method of Accomplishment** – Describe how oversight will be accomplished for the project to meet the intent of applicable Department of Energy (DOE) and Oak Ridge Office (ORO) oversight policies, procedures, and Directives.
  - 4.1 Oversight Activities** – Identify the various types of oversight activities that will be performed for the project; e.g., assessments, reviews, walkthroughs, etc.
  - 4.2 Frequency of Oversight Activities** – Develop a schedule of oversight activities that will be performed for the project. As a minimum, the schedule should include: (1) type of oversight; (2) frequency of oversight; (3) any schedule drivers, e.g., laws, DOE, and ORO Directives, etc.; and (4) responsible IPT member(s) who will conduct the oversight.
  - 4.3 Documentation of Results** – Explain how results of oversight activities will be documented and how issues identified will be addressed. Tracking and trending analysis and corrective action development should be discussed utilizing existing ORO processes and procedures.
- 5.0 Change Control** – Describe how changes will be made to the PSOP. Change control should ensure that project changes are identified, evaluated, coordinated, controlled, reviewed, approved, and documented in a manner that best serves the project.