

Approved:

INTEGRATED SAFETY MANAGEMENT SYSTEM DESCRIPTION



U.S. DEPARTMENT OF ENERGY
OFFICE OF RIVER PROTECTION

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Executive Summary

The Integrated Safety Management System Description defines how the U.S. Department of Energy (DOE), Office of River Protection (ORP) integrates environment, safety, and health requirements and controls into Federal work activities, and oversees implementation of integrated safety management with the contractors. It explains our safety values, objectives, and approach for ensuring protection to the worker, public, and the environment, and also incorporates the four supplemental guiding principles from [DOE 2004-1, *Implementation Plan to Improve Oversight of Nuclear Operations*](#). Lastly, this document establishes the ORP Manager's expectations for establishing and maintaining a safety conscious work environment.

Safety is first – it overrides every other priority

The following are the ORP Manager's safety expectations for the Federal staff.

- Safety is the dominant characteristic and value of the ORP. Safety comes first and is valued above production, budget, and schedule. Safety overrides every other priority.
- Safety drives how we do business. The DOE Integrated Safety Management System is a systematic approach for selecting and incorporating the appropriate safety standards, necessary work controls, and expectation of continuous feedback/improvement. This systematic approach motivates a culture of personal responsibility by and for each employee. ORP Federal staff will not accept shortcuts that circumvent safety or yield less than quality results.

The ORP safety culture is founded on the following principles:

- An environment where each employee instinctively feels responsible for safety.
- Leaders demonstrate commitment to safety.
- Processes are routinely reviewed to improve effectiveness and efficiency.
- People are competent and expert at the work they perform.
- Knowledge is shared, differing opinions are acknowledged, and workers are involved in decision-making processes.
- Decision-making reflects safety as the overriding priority.
- An inquisitive attitude and behavior is cultivated towards challenging assumptions and considering potential adverse consequences of planned actions.
- A disciplined authorization basis system is essential to ensuring all hazards are identified and mitigated before work begins.
- Organizational learning is embraced.
- We openly examine our operations and solicit feedback from external resources.

ORP offers a work environment which fosters and encourages an open exchange of ideas. This includes raising safety concerns or differing opinions without fear of retaliation. The ORP Manager expects each ORP staff member to raise safety issues and provide feedback for improving work processes.

The ORP ISMS drives a safety-conscious work environment. The ORP Manager expects each ORP worker to protect against accidents. All accidents and incidents are preventable. An accident-free workplace is achieved through careful planning, close attention to hazard controls, worker involvement in task planning, and stopping work in the face of uncertainty. ORP staff maintains this high standard of excellence for the organization and nuclear operations.

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Acronyms

ABAR	Authorization Basis Amendment Request
ACD	Acquisition Career Development
ASPC	Analytical Services Production Contractor
BNI	Bechtel National, Inc.
CA	corrective action
CARS	Consolidated Action Reporting System
CFR	<i>Code of Federal Regulations</i>
DEAR	U.S. Department of Energy Acquisition Regulation
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy
DPO	differing professional opinion
DSA	documented safety analysis
Ecology	Washington State Department of Ecology
ECP	Employee Concerns Program
EIS	environmental impact statement
EJTA	Employee Job Task Analysis
EM	Office of Environmental Management
EMS	Environmental Management System
EPA	U.S. Environmental Protection Agency
ESQ	Office of Environmental Safety and Quality
FEOSH	Federal Employee Occupational Safety and Health
FRA	<i>Safety Management Functions, Responsibilities and Authorities</i> (Office of Environmental Management)
FR	facility representative
FRAM	<i>Safety Management Functions, Responsibilities, and Authorities Manual</i>
FTCP	Federal Technical Capabilities Program
FSAR	final safety analysis report
HFFACO	<i>Hanford Federal Facility Agreement and Consent Order</i>
FY	fiscal year
HPI	Human Performance Improvement
HQ	Headquarters
HR	Human Resources
IDP	individual development plan
INPO	Institute for Nuclear Power Operations
IPP	individual performance plan
ISMS	Integrated Safety Management System
ISMSD	Integrated Safety Management System Description
LAW	low-activity waste
MOA	memorandum of agreement
NEPA	National Environmental Policy Administration
NQA	Nuclear Quality Assurance
OCRWM	Office of Civilian Radioactive Waste Management
OMB	Office of Management and Budget
OPA	Office of Performance Assessment
ORP	Office of River Protection

ORPID	ORP implementing directive
PD	position description
PEP	Project Execution Plan
PMB	performance measurement baseline
POMC	performance objectives, measures, and commitments
PSAR	preliminary safety analysis report
QA	quality assurance
QAP	Quality Assurance Program
QAPD	Quality Assurance Program Description
RIMS	RL Integrated Management System
RL	U.S. Department of Energy, Richland Operations Office
RPP	River Protection Project
S/RID	Standards/Requirements Identification Document
SER	safety evaluation report
SO	Safety Oversight
SRD	Safety Requirements Document
SWE	Safe Work Environment
TFC	Tank Farms Contractor
TFP	Tank Farms Project
TQP	Technical Qualification Program
TSR	technical safety requirement
USQ	unreviewed safety question
WSHP	Worker Safety and Health Plan
WTP	Waste Treatment and Immobilization Plant
WTPC	Waste Treatment and Immobilization Plant Contractor

1.0 Purpose and Objective

The U.S. Department of Energy (DOE), Office of River Protection (ORP) establishes and manages the contracts for the Waste Treatment and Immobilization Plant (WTP) Contractor (WTPC), the Tank Farms Project Contractor (TFC), and the Analytical Services Production Contractor (ASPC), and oversees the contractor's safe operations of these facilities. The ORP Integrated Safety Management System Description (ISMSD) describes the Federal processes for planning, overseeing, and improving the safe conduct of work required by [DOE P 450.4, *Safety Management System Policy*](#), and its implementing manual, [DOE M 450.4-1, *Integrated Safety Management System Manual*](#). The ISMSD explains our safety values, objectives, and approaches for ensuring protection to the worker, public, and the environment. This document also integrates the four supplemental guiding principles from the DOE 2004-1, *Implementation Plan to Improve Oversight of Nuclear Operations*, with the existing seven Integrated Safety Management System (ISMS) guiding principles. The four supplemental principles illustrate high-reliability organization attributes. Lastly, this document establishes the ORP Manager's expectations for maintaining a safety conscious work environment.

The ISMSD focuses on the following three areas: (1) describes the ORP management systems necessary for ISMS execution; (2) explains the ORP Federal staff work activities within the ISMS envelope; and (3) presents the ORP performance objectives to measure ISMS effectiveness.

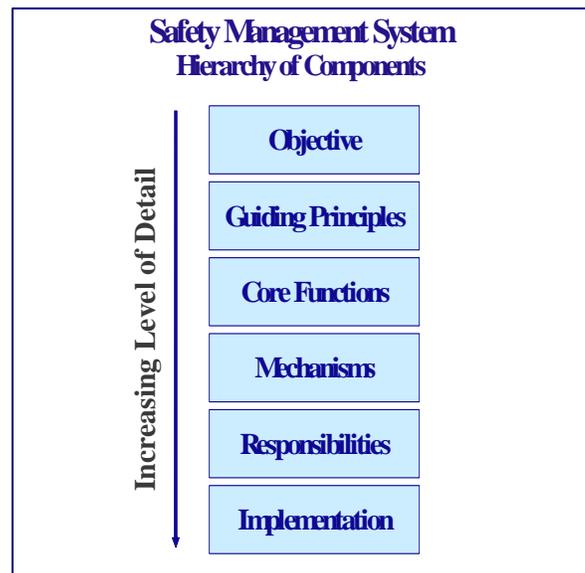
2.0 Integrated Safety Management System Overview

ISMS involves the integration of safety awareness and practices into all aspects of work performance. An ISMS provides a formal process where people plan, perform, assess, and improve the safe conduct of work. Safety is integral to the planning and accomplishment of each work task. ORP Federal staff plan, oversee, assess, and conduct work in a safe manner that protects the worker, the public, and the environment.

The DOE ISMS establishes a hierarchy of six components to facilitate consistent implementation throughout the complex (Figure 1). The ISMS principles and core functions are defined in Appendix A. DOE uses the same objective, guiding principles, and core functions to ensure a safety conscious work environment. However, the mechanisms and implementing actions by the Federal staff may vary by project depending on the nature and hazard of the work.

Objective of Safety Management: Systematically integrate safety into management and work practices at all levels of the ORP.

Figure 1. ISMS Hierarchy of Components



Eleven (11) Guiding Principles (7 Original plus 4 Supplemental) of Safety Management:

These principles establish the fundamental policies which guide DOE and contractor actions for safe work accomplishment. Section 6.0 discusses ORP implementation for each of the following principles:

- Line Management Responsibility for Safety
- Clear Roles and Responsibilities
- Competence Commensurate with Responsibilities
- Balance Priorities
- Identification of Safety Standards and Requirements
- Hazard Controls Tailored to Work Being Performed
- Operations Authorization
- Highly-Reliable Operational Performance
- Individual Attitude and Responsibility
- Performance Assurance
- Organizational Performance Improvement

Five Core Functions of Safety Management:

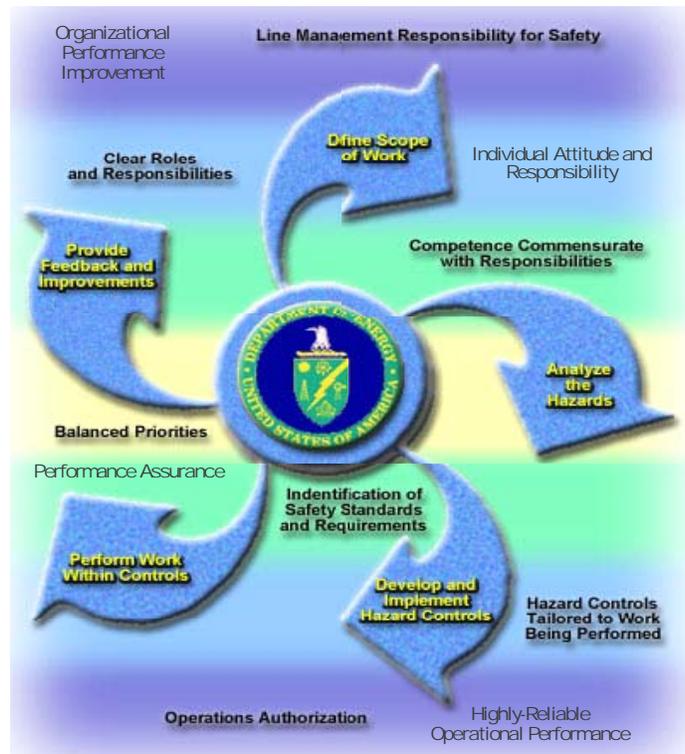
1. Establish guidance to define work scope.
2. Ensure hazards associated with work activities are analyzed in accordance with approved safety rules and standards.
3. Develop guidance and ensure hazard controls are identified and implemented.
4. Monitor and oversee work to assess if performance is within work controls.
5. Provide feedback and continuous improvement ideas.

Mechanisms of Safety Management:

The ORP management systems, which implement core safety functions, serve as our primary safety mechanism. The ORP management team also incorporates supplemental actions and mechanisms as required to support the management systems. These supplemental mechanisms may range from communication improvement initiatives to special all-hands meetings on various safety topics.

Figure 2. ISMS Principles and Functions

Guiding Principles and Core Functions



Responsibilities of Safety Management: The ORP safety management responsibilities are clearly defined in the ORP *Safety Management Functions, Responsibilities, and Authorities Manual* (FRAM) (DOE M 411.1-1), and Section 5.0 of this ISMSD.

Implementation of Safety Management: Section 6.0 specifies safety implementation actions, performance objectives, measures, and commitments (POMC), systems, and attributes.

3.0 ORP Management Commitments and Expectations

A strong safety culture is highly dependent on a learning environment. ORP operates multiple learning and communication processes to capture and share project and safety knowledge. The ORP safety and learning culture has three distinctive elements:

1. Organizational culture – Sum of the group’s learning and knowledge for the project
2. Nuclear safety culture – ORP’s behaviors and values making safety its overriding priority
3. Worker safety culture – Safety conscious work environment where workers raise issues without fear of reprisal.

Good leadership and a culture of management-worker trust are key ingredients for an open learning atmosphere. ORP’s safety culture represents the sum of the organization’s learning as it deals with lessons learned, assessments, issues, and continuous improvement. Section 6.0 of this ISMSD shows how we utilize our management systems to leverage learning and knowledge throughout the entire organization.

The ORP management team establishes and implements management systems that ensure work is performed safely by both Federal and contractor staff in a safety conscious work environment. The ORP management team commits to a “Zero Accident/Incident Policy,” and strives to eliminate hazards by pledging the following:

**ORP is a place where
the prevention of
accidents is
instinctive to
employees**

- To “lead by example” and demonstrate “safety first” to achieve a safety conscious work environment and accident-free workplace
- To recognize safety is a collective responsibility and each worker has personal responsibility for safety and improving work processes
- To define clear roles, responsibilities, and authorities for each employee
- To be self-critical, perform self-assessments, and solicit external feedback to achieve continuous improvement
- To train ORP employees to ensure they are equipped with technical capabilities required to fulfill safety responsibilities
- To establish effective POMCs that monitor and evaluate actual performance against the planned objectives

- To maintain a viable lessons-learned and operating experience program, and to continually learn from experience
- To select contractors who are committed to safety and demonstrate a zero-accident/incident safety culture
- To monitor and assess its contractors' safety performance, and require contractors to complete timely corrective actions
- To respect a clean, healthy environment and require environmental considerations (understanding the impact of an action to the environment) to be an integral part of our mission

The following are management's safety expectations for each ORP Federal employee:

- To maintain a questioning and inquisitive attitude
- To have a willingness to pause, ask questions, gather additional data, and obtain answers, rather than proceed in the face of uncertainty
- To raise concerns and issues directly to management or to use other resolution programs
- To make decisions that consider safety before production, cost, and schedule
- To perform oversight to strengthen safety and improve performance
- To achieve excellence beyond compliance

4.0 Safety Performance Measures, Objectives, and Commitments

ORP measures safety improvement by evaluating performance against aggressive safety objectives and goals. We evaluate safety performance results against baseline objectives to determine the success of our safety culture. ORP develops indicators to measure the effectiveness of its management systems. The following are some indicators used by ORP to measure performance:

- Incorporate safety responsibility and goals into individual development plans (IDP), position descriptions (PD), and Employee Job Task Analysis (EJTA) documents; completing an annual update of these documents on schedule
- Complete annual individual performance plans with meaningful safety goals
- Timely disposition of employee concerns and differing professional opinions (30-day goal)
- Complete accreditation of the Technical Qualification Program (TQP) against Institute for Nuclear Power Operations (INPO) standards
- Successful completion of the planned ORP Integrated Assessment Schedule
- Management completes required field observations (hours of field surveillance)
- Monthly review of project cost and schedule indices to determine any necessary corrective action plans
- Timely disposition of baseline change requests (30-day goal)

- Timely annual work scope priority guidance to contractors
- Completion of annual ISMS readiness reviews on schedule
- Closure of ISMS corrective actions within 30 days from identification

POMCs are further discussed in Section 6.0. A complete list of ORP POMCs for fiscal year (FY) 2007 is provided in Appendix B1. ORP POMCs planned for FY 2008 are provided in Appendix B2.

The ORP contractors develop safety measures for operations, construction, and field work. Annually, ORP contractors develop POMCs for DOE approval. The contractors track performance against the measures and submit quarterly evaluation reports to ORP for review.

The types of indicators tracked by the contractors include, but are not limited to:

- Total recordable lost workdays case rate (TRC)
- Days away and restricted workdays (DART)
- Reportable occurrences of releases to the environment
- Unplanned worker radiation dose
- Skin, clothing, and internal contaminations
- Lockout/tagout incidents
- Reduction of contaminated areas
- Regulatory notices of correction and violations
- Double-shell tank space capacity
- Technical safety requirement violations
- Number of workers receiving actual exposure to tank vapors
- Number of repeat events
- Transportation events

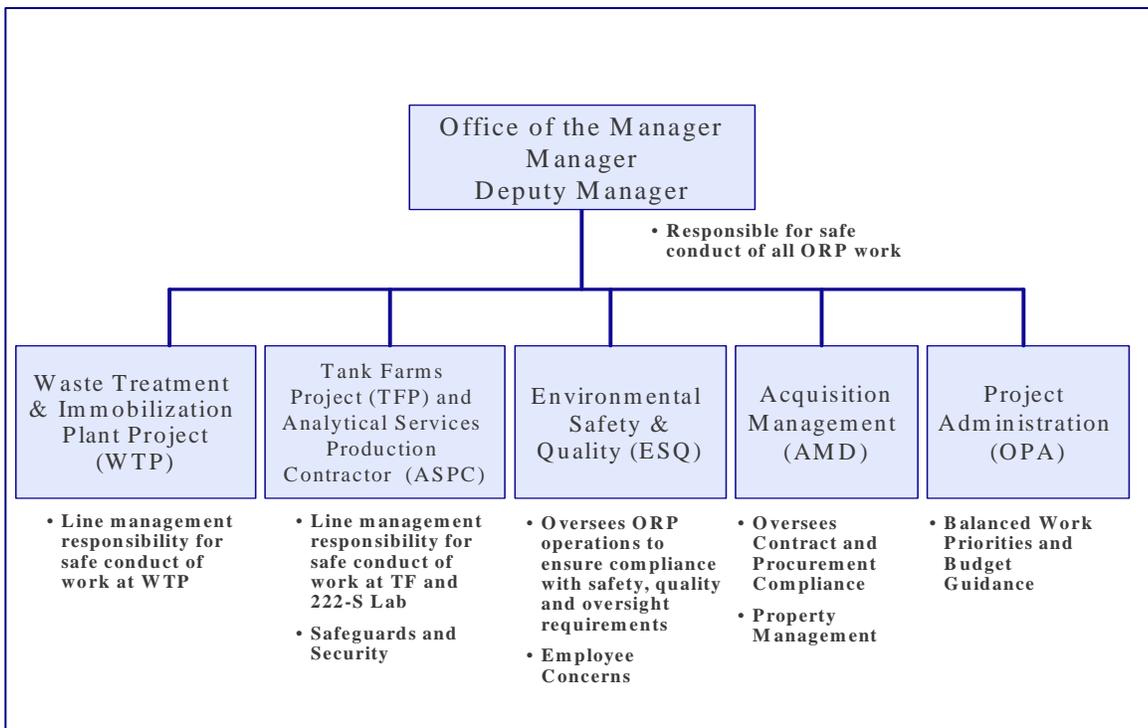
Performance indices are established for each topical area based on historical performance and future improvement expectations. ORP monitors the contractors' progress against their safety goals.

5.0 Roles and Responsibilities

Ultimate responsibility and accountability for ensuring adequate protection in the work environment rests with DOE ORP line management. ORP is responsible for managing all aspects of the River Protection Project (RPP) safely and with excellence. ORP safety responsibilities are also defined in the FRAM (DOE M 411.1-1). The FRAM can be viewed at: <http://apweb04.rl.gov/doeorp/orp/index.cfm?PageNum=6>

The FRAM details essential safety management functions and clearly establishes DOE lead roles, responsibilities, and authorities for execution of authorized work. Figure 3 summarizes ORP safety responsibilities.

Figure 3. ORP Safety Responsibilities



- The ORP Manager and Deputy Manager have authority in the field concerning all matters associated with execution and management of the RPP. They establish the Federal safety objectives, expectations, commitments, and overall ORP safety culture. Additionally, they perform management walkthrough assessments and observations.
- The line managers (WTP and Tank Farms Project [TFP]) ensure safety in work performance and promote continuous improvement. The line staff performs safety, construction, and operations/facility assessments, identifies issues for corrective action (CA), and determines CA effectiveness.
- The Director for the Office of Environmental Safety and Quality (ESQ), also the ORP Safety Officer, develops safety directives, coordinates the Lessons Learned program, and oversees ORP compliance to safety requirements. ESQ performs programmatic assessments of ORP contractors and provides subject matter experts to support the line as needed. ESQ provides the line organizations with feedback on the effectiveness of performance indicators and identifies areas of ISMS and quality concerns.
- The Director of Project Administration (OPA) facilitates work priorities with line management, and provides overall budget planning and financial guidance. The OPA Director performs program assessments of business systems and provides support to the line as needed, and provides the line organizations with feedback regarding business systems effectiveness.
- The Acquisition Management Division (AMD) Director manages contract placement and administration within the broad framework of policies established by the ORP Manager for safe and effective operation of the Hanford Site. AMD also manages ORP property and assets.
- All ORP employees are responsible for ensuring work is executed safely and communicating safety concerns to management.

ORP establishes policy for safety requirements and standards, safe conduct of operations and construction, quality control, management systems, and business activities. ORP line management fulfills its safety responsibility by establishing contractual requirements, safety guidance, and overseeing contractor work activity. DOE managers oversee contractor work, assess safety compliance, and perform self-assessments against ISMS requirements.

ORP management sets the example of safety leadership through visible actions including monthly safety meetings, field/facility observations, assessments, surveillances, and by ensuring a viable lessons learned program, performing self-assessments, creating a learning environment, and maintaining channels for employee feedback. Managers are visible in the field, reinforce safe conduct of operations, and discuss safety concerns directly with the workers.

5.1 Federal Work Scope Responsibilities

While different from the contractors' safety role, DOE's role in assuring safety is equally as important. Examples of Federal work required for an effective ISMS include:

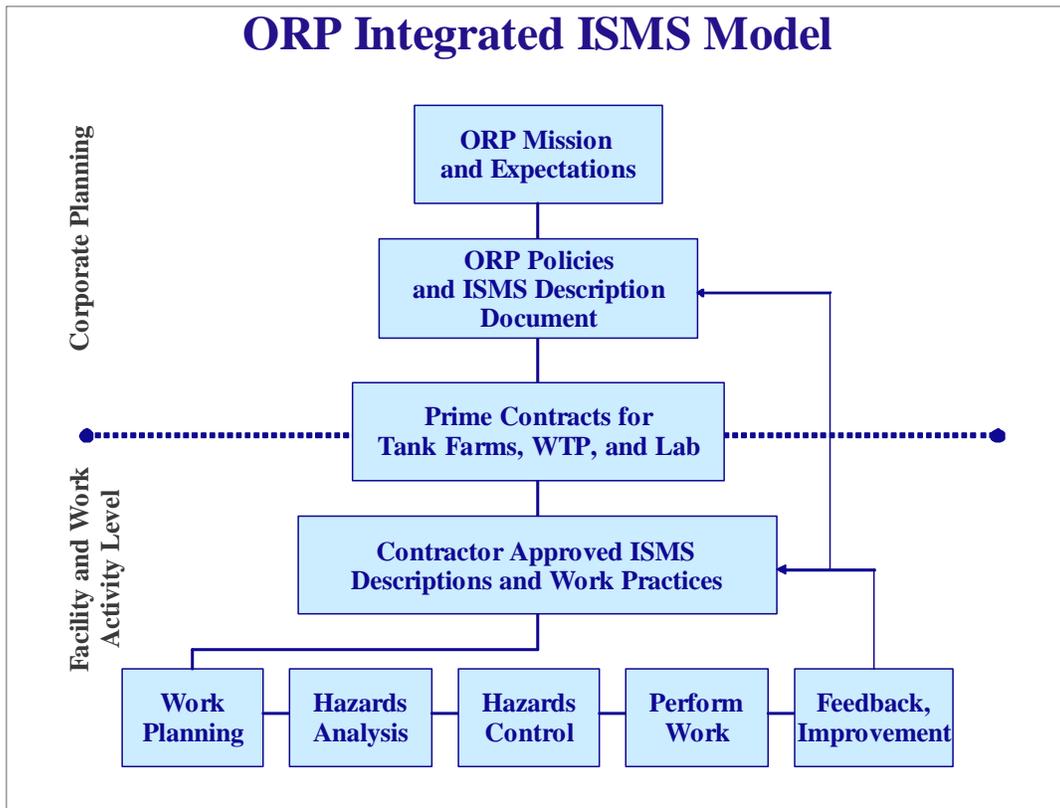
- Establishing the mission and mission plans
- Acquiring resources and executing contracts
- Developing annual budgets and work priorities
- Assigning safety management roles, responsibilities, and requirements
- Establishing a positive safety environment through effective ISMS implementation
- Implementing management systems for Federal operations
- Reviewing project baseline plans and evaluating cost/schedule performance
- Developing performance baseline incentives (PBI) for contractor performance
- Establishing quality program requirements
- Approving safety analysis reports and technical safety requirements
- Approving authorization agreements and safety basis
- Performing operational readiness reviews
- Managing the ORP lessons learned program
- Performing assessments, self-assessments, and management observations
- Performing annual ISMS effectiveness reviews
- Reviewing annual contractor ISMS readiness declarations
- Performing issues management and overseeing corrective action closure
- Establishing performance metrics and evaluating contractor safety performance

This ISMSD focuses on safety management and continuous improvement for the Federal staff. ORP accomplishes safety improvement through effective leadership, making safety the core of organizational actions through effective management systems.

6.0 Integrated Safety Management System Implementation at ORP

The ORP ISMS facilitates the integration of safety into work planning. ORP implements the requirements of ISMS through a comprehensive set of policies, project plans, regulations, and contracts. In addition, the safety requirements of DOE P 450.4 and DOE G 450.4-1B, *Integrated Safety Management System Guide for use with Safety Management System Policies*, are applied within each prime contract (Figure 4). This section describes the ORP implementation of the safety principles and functions, the management systems installed to execute the desired safety, and the expected organizational attributes and outcomes.

Figure 4. ORP Integrated ISMS Model



6.1 Approach for Executing ISMS Principles

The benefit of the 11 ISMS principles (7 original plus 4 supplemental high-reliability organization principles) and 5 core functions is improved safety awareness and operation. The principles establish an expected set of behaviors and disciplines for eliminating unsafe practices and accidents. Each “principle” has an associated implementation discussion using the following template:

- Attributes and Expected Outcomes
- ORP Management Systems Used to Execute Outcomes
- ORP Policy and Procedural Documents for Each System
- Supplemental Management Actions to Enhance the ORP Safety Culture
- Applicable Performance Measures, Objectives, and Commitments (POMC)

The ORP management systems are the primary instrument for implementing the safety principles. The management systems (also referred to as programs) define the practices, techniques, and tools used by ORP to meet the project requirements. The ORP management systems are active and progressive. The systems are adjusted as needed to accommodate new requirements, lessons learned, and feedback for improvement.

In May 2007, ORP conducted an internal self-assessment of its current management systems and associated procedures (A-07-ESQ-ORP-001, *Self-Assessment of Office of River Protection's Management Systems*, which is located at <http://www.hanford.gov/orp/uploadfiles/A-07-ESQ-ORP-001.pdf>). The purpose of the self-assessment was to:

- Review ORP management systems against the Office of Environmental Management (EM) *Safety Management Functions, Responsibilities and Authorities* (FRA) to identify any disparities (EM FRA located at <http://apweb04.rl.gov/doeorp/orp/docs/6/docs/EM%20FRA.pdf>)
- Compare the ORP management systems against the EM ISMS (DOE G 450.4-1B) description to ensure consistent application of approaches for completing DOE requirements
- Determine whether the required management systems are established at ORP and supported with implementing procedures
- Review the ORP FRAM and ORP ISMSD to determine whether all necessary functions, responsibilities, and authorities pertaining to the management of the ORP project are adequately addressed

Consequently, ORP identified five areas for improvement and developed corrected actions to achieve these enhancements.

As such, the systems discussed herein are continually improved along with the ISMSD. Table 1 provides a matrix of the ORP management systems discussed in this ISMSD, system responsibility, and the associated implementing procedures.

Table 2 shows the alignment of the ORP management systems to the ISMS safety principles.

In addition to management system implementation, ORP performs supplemental management actions and initiatives to improve safety awareness and productivity. These supplemental actions are also discussed for each ISMS principle.

Table 1. ORP Management Systems and Procedures

ORP Systems (ISMSD)	ORP Owner	ORP Procedures
ORP FRAM	B. Williams (ESQ)	ORP M 411.1-1, ORP FRAM Rev. 7
Safety and Health Management ISMS	B. Taylor (ESQ)	ORP M 450.4, ISMS Description
Safety Basis Management Authorization Basis Management	D. Bryson (TF) and B. Griffith (WTP)	ORP PD 420.3, Safety Basis Management ORP M 425.1, Startup and Restart of Nuc. Facilities
Fire Protection	B. Taylor (ESQ)	ORP M 414.1, Fire Protection Program ORP M 450.4, ISMS Description ORP M 435.1-1, Waste Incidental to Reprocessing Determinations
Environmental Management System Safeguards and Security Emergency Management	B. Taylor (ESQ) M. Royack (TF)	RIMS, Security and Emergency Services Management System Description
Project Management System Project Controls & Baseline Mgmt.	D. Noyes (TF) and J. Treadwell (WTP)	ORP M 413.3-1a and b, Project Reviews and Baseline Change Control WTP and TF Project Execution Plans ORP M 413.3-1c and d, River Protection Project Integrated Risk Management Process Manual
Budget Formulation and Execution	L. Copeland (ORP)	ORP M 413.3-1a and b, Project Reviews and Baseline Change Control WTP and TF Project Execution Plans
Acquisition Management Asset Management Performance Evaluation System	M. Barrett (AMD)	ORP M 413.3-1a and b, Project Reviews and Baseline Change Control Per FAR, DEAR, and DOE HQ Acquisition Guide ORP Desk Procedures
Oversight and Assessment Management Walkthrough	B. Taylor (ESQ)	ORP M 226.1, Assurance System Description ORP M 243.1, OA Oversight Database ORP M 220.1, Integrated Assessment Plan
Regulatory Compliance	B. Taylor (ESQ)	ORP M 450.4, ISMS Description Environmental Division Desk Instructions for TPA, NEPA, and Permitting
Quality Assurance	B. Taylor (ESQ)	ORP M 414.1, Quality Assurance Program Descrip.
Employee Concerns Program	B. Williams (ESQ)	Employee Concerns Program Plan and Differing Professional Opinion Procedure
Training, FTCP	D. Bryson (TF) and B. Griffith (WTP)	Safety Oversight Program Plan ORP DI SO-DI-001, R2, SO Qualification Process ORP M 420.2c, Facility Rep Program
Facility Representative Oversight	M. Brown and J. Bruggeman (FR Oversight)	ORP M 432.1, WTP Project Construction Oversight EM M 420.2c, Facility Representative Program
Lessons Learned and Differing Profession Opinion	B. Taylor (ESQ)	ORP M 210.1, OE and Lessons Learned Program Differing Professional Opinion Procedure
Engineering & Design Oversight	D. Bryson (TF) and B. Griffith (WTP)	WTP DI 220.1, Conduct of Design Oversight TF DI, Conduct of Program and Project Oversight
Issues Management System (includes DNFSB Corrective Actions Management)	Z. Smith (Deputy Manager) C. Fetto (DNFSB CA Mgmt.)	ORP M 220.1, Integrated Assessment Plan (Preparing new procedure for CARS) DOE M 140.1B, Interface with the DNFSB
HR Management System Workforce Management Employee Relations Performance Recognition	C. Fetto (MGR) D. Bryson (FTCP Workforce Analysis)	Human Capital Management Plan RL Integrated Management System (RIMS)

Table 2. Management Systems to Execute ISMS Principles

ISMS Guiding Principles	Supplemental High-Reliability Principles	ISM Core Functions	ORP Safety Culture	ORP Management Systems to Execute Principles
Line Management Responsibility	Highly-Reliable Operational Performance	* All Core Functions apply to these 5 Principles	<ul style="list-style-type: none"> Leaders demonstrate commitment to safety 	<ul style="list-style-type: none"> Project Management System/ORP FRAM Assessment and Oversight Program Management Walkthrough Program ISMS Directives Management Issues Management
Clear Roles and Responsibilities	Individual Attitude and Responsibility		<ul style="list-style-type: none"> Everyone is responsible for safety Trust permeates the organization 	<ul style="list-style-type: none"> ORP FRAM and ISMS Human Resource Management Workforce Management Employee Relations Communications
Competence to Perform Responsibilities			<ul style="list-style-type: none"> Organizational learning is embraced A questioning attitude is cultivated 	<ul style="list-style-type: none"> Training and Qualifications Programs Federal Technical Capability Program HR Performance Recognition Program Differing Profession Opinion Lessons Learned
Balanced Priorities	Performance Assurance	1. Define Scope of Work	<ul style="list-style-type: none"> Decision-making reflects safety first 	<ul style="list-style-type: none"> Project Controls and Baseline Management and ISMS Acquisition Management Asset Management Financial Management Budget Formulation and Execution
Identification of Safety Standards	Organizational Performance Improvement	2. Identify and Analyze Hazards	<ul style="list-style-type: none"> Nuclear operations are special and unique and required disciplined controls 	<ul style="list-style-type: none"> Safety Basis Management System Authorization Basis Management Environmental Management System ISMS Annual Declaration Process Regulatory Compliance Fire Protection
Tailor Hazard Controls to Work		3. Develop and Implement Hazard Controls		
Operations Authorization		4. Perform Work Within Controls	<ul style="list-style-type: none"> Safety undergoes constant examination 	<ul style="list-style-type: none"> Construction and Operations Authorizations Employee Concerns Program Quality Assurance Program Safety and Health, Security, and Emergency Management Performance Evaluation System Lessons Learned, Self-Assessment Program Engineering and Design Oversight
		5. Feedback and Continuous Improvement		

The following sections identify the ORP safety culture attributes, management systems, supplemental safety actions, and POMCs for each ISMS principle and core function. These sections describe how the ORP systems and other management actions help achieve the qualities of a safety conscious workplace.

6.1.1 Principle 1: Line Management Responsibility for Safety

ORP develops and implements effective management systems to ensure line management is directly responsible for the protection of the public, the workers, and the environment.

Attributes/Expected Outcomes (Associated Management System)

- Line managers “lead by example” and understand and accept their safety responsibilities. (ORP FRAM, ISMS)
- Leaders demonstrate commitment to safety. (ORP FRAM, ISMS)
- ORP has a safety conscious workplace. (ISMS and Safety Basis)
- Corrective actions are implemented in a timely manner. (Issues and Corrective Action Management)
- Line managers and support organizations have a clear understanding of their work activities and objectives. (ORP FRAM, Human Resources [HR] Management)
- Managers practice visible leadership in the field by coaching, mentoring, and reinforcing standards. (Management Walkthrough, Assessment and Oversight)
- Line managers are the source of direction on the project. Support organizations perform program evaluations and provide the line independent observations. (Project Management)
- Managers perform effective oversight of work and self-assessments. (Assessment and Oversight, Self-Assessment, and Management Walkthrough)
- ORP performs first-hand field observations to ensure operational and program effectiveness. (Assessment and Oversight, Self-Assessment, and Management Walkthrough)
- Strategic plans, manuals, directives, procedures, and desk instructions are posted on the ORP web page for easy access and reference. (Project Management and Communications)
- Feedback and improvement is identified and distributed. (Lessons Learned/Operating Experience)

ORP Management Systems to Execute Outcomes

- Project Management System
- ORP FRAM
- Assessment and Oversight Program
- Management Walkthrough Program
- ISMS
- Directives Management
- Issues Management
- Lessons Learned/Operating Experience

System Policies and Procedures

- a. *ORP M 411.1-1, Rev. 7, Safety Management Functions, Responsibilities, and Authorities Manual for the U.S. Department of Energy, Office of River Protection*
- b. *ORP M 220.1, Rev. 4, Integrated Assessment Plan*
- c. *ORP M 413.3-1, Project Reviews and Baseline Change Control*
- d. *DOE/RL-2002-47, Rev. D, Performance Management Plan for the Accelerated Cleanup of the Hanford Site, <http://www.hanford.gov/docs/rl-2002-47/rl-2002-47.pdf>*
- e. *ORP M 413.3-1c, River Protection Project Integrated Risk Management Process Manual*
- f. *ORP M 413-1d, River Protection Project Federal Risk Management Plan*
- g. *ORP M 251.1, ORP Implementing Directives (ORPID) System Manual*
- h. *ORP M 210.1, Operating Experience and Lessons Learned Program*
- i. *ORP M 412.1, Consolidated Action Reporting System (CARS) (draft)*
- j. *ORP M 450.4, Rev. 3, Integrated Safety Management System Description*
- k. *2007 Tank Farms Project Execution Plan approved by EM Deputy Secretary*
- l. *WTP Project Execution Plan, <http://apweb04.rl.gov/doeorp/orp/index.cfm?PageNum=6>*
- m. *RL Integrated Management System (RIMS), Human Resources Management System*

Supplemental Management Actions to Enhance Safety Culture

- Supported the Energy Facility Contractors Group Integrated Safety Management Working Group for the sharing of innovative ideas and safety practices and to collaborate on the implementation of [10 CFR 851, “Worker Safety and Health Program.”](#)
- ORP “Zero Accident/Incident” safety policy implemented.
- ORP senior managers conduct a morning leadership meeting to discuss safety goals, performance indicators, and safety concerns. The ORP Manager’s Top 10 Issues and Deliverables are reviewed each week.
- Implemented more discrete and measurable POMCs. Approved more aggressive and focused POMCs for the prime contractors.
- Completed an ORP management systems self-assessment and identified areas for improved systems procedures. Corrective actions incorporated into CARS.
- Completed an ORP corrective actions management system self-assessment and identified action tracking improvements. Corrective actions incorporated into CARS.
- Conducted safety-conscious work environment training for all ORP Federal employees and support service contractors.
- Scheduled two Nuclear Quality Assurance (NQA)-1 Lead Auditor and QA Rule Overview training courses for the ORP organization (July 2007).
- ORP and the Richland Operations Office (RL) implemented a pilot Human Performance Improvement (HPI) initiative for DOE and the Hanford prime contractors. HPI is a tool that provides additional insights not evident by just using existing, traditional tools such as root cause analysis or event investigations. It became evident during the pilot how important it is to establish a “just culture” in order to ensure open communication of event circumstances. <http://www.hanford.gov/orp/uploadfiles/HPI%20LL.pdf>.
- Institutionalized and strengthened the Lessons Learned Program.
- Scheduled independent Earned Value Management System reviews at the WTP.
- In June 2006, ORP and RL completed a Memorandum of Agreement (MOA) for improved Hanford Site integration of groundwater and vadose zone cleanup.
- All-employee meetings are conducted monthly to discuss safety culture and safety objectives.
- ORP’s endorsement of the Hanford Concerns Council as an independent, alternative avenue for addressing employee concerns.

FY 2008 Performance Measures, Objectives, and Commitments (POMC)		
Management System	Performance Measure/Commitment	Owner
ORP FRAM	ORP FRAM is updated annually by 05/31 and submitted to EM-1.	ESQ Manager
Project Management System	Renegotiate applicable Tri-Party Agreement milestones by 10/01/07.	National Environmental Policy Administration (NEPA) Compliance Officer
	Corrective actions are reviewed monthly with the contractor for any cost or schedule variance which is greater than a negative 10%.	WTP Manager/Tank Farms Manager
	ORP conducts monthly all-employees meeting with an emphasis on safety and project management.	ORP Manager
Project Controls and Baseline Management	ORP dispositions Level 1 contractor change requests to DOE Headquarters (DOE HQ) within 30 days of receipt.	Tank Farms Manager/WTP Manager
Assessment and Oversight Program/ Management Walkthrough	The Assessment and Oversight Schedule is issued annually by 09/30.	ESQ Manager
	ORP completes 90% or greater of annually planned assessments on schedule.	ESQ Manager
	Increase ORP self-assessments by 10% in FY 2008 over previous year.	ESQ Manager
	ORP line managers each spend at least 4 hours/month or 48 hours/year in the field.	ORP Manager
Directives Management	Complete review and approval of all ORP directive Record of Decisions within 60 days from date of release.	Directives Management
	Develop ORP specific procedures or program plans for Human Resources, Communications, and Safeguards and Security by 12/31/07.	Directives Management
Issues Management System	Provide a weekly Manager's Top Ten Issues and Deliverables report for ORP senior management review.	ORP Deputy Manager

ORP Management Systems to Execute Principle

Project Management System/ORP FRAM

Section 5 of the ORP FRAM assigns line management responsibility for safety. The ORP FRAM addresses the safety management functions identified in the DOE Headquarters FRAM, EM FRA, other pertinent responsibilities and authorities delegated to the ORP Manager, and identification of ORP organizational responsibilities for each function. The ORP FRAM assigns applicable safety responsibilities to individual Assistant Managers, Project Managers, and Directors. The processes for executing ISMS functions are further described in ORP manuals, procedures, program plans, and desk instructions. Specific examples of ORP line management's responsibility for safety include contract documentation, approval of authorization basis documents, authority to stop work, and line management determination of contractor award fee and performance-based incentives.

Assessment and Oversight Program

The assessment program enables ORP staff to: (1) monitor the contractors' operating performance; (2) determine the effectiveness of the implementation of DOE Orders, state and Federal regulations, and national codes and standards; (3) evaluate the effectiveness of contractor continuous improvement programs; and (4) evaluate the quality of contractors' self-assessment programs. ORP assessments focus on performance and effectiveness, rather than simple compliance with requirements.

The ORP Integrated Assessment Program strives for high-quality reviews with the flexibility to meet both base requirements and emerging needs.

Ultimately, ORP line managers are responsible for safe conduct of operations and work. Consequently, the ESQ Director oversees ORP compliance to safety requirements and standards, and manages the assessment program.

Management Walkthrough Program

ORP managers perform and document monthly walkthrough observations. Unscheduled walkthroughs resulting from incident investigations are considered part of the walkthroughs. Walkthroughs typically last 2 to 4 hours. Line managers are required to perform field and facility observation; for FY 2008, managers are to spend a minimum of 4 hours/month or 48 hours/year in the field.

ISMS

The ISMS provides a formal, organized process for planning, performing, assessing, and improving the safe conduct of work at the Hanford Site. The ESQ Director is responsible for coordination of the annual declaration. The ORP ISMS declaration of readiness is approved by the ORP Manager and submitted to the Assistant Secretary for EM by September 30 each year. The Assistant Secretary for EM requires field offices to provide assurance ISMS systems are being maintained and functioning in an effective manner. Assurance is documented by submittal of the annual declaration of readiness. This declaration states the project's status in implementing ISMS and the effectiveness of the program.

The procedure for coordination of the ORP declaration of readiness is ISMS Readiness Declaration Process Desk Instruction 3.1, maintained at:
<http://apweb04.rl.gov/doeorp/orp/docs/94/docs/DI-3-1.pdf>

Directives Management

The directives program is the method by which ORP defines policies, requirements, and responsibilities, as well as promotes safe, efficient, compliant and cost-effective activities. The ORP Manager approves all ORP Policy Statements, Notices issued without full coordination, ORP implementing directives (ORPID) containing unresolved concurrences, and all changes to the FRAM. The ORP Corporate Board reviews and endorses ORP Policy Statements, ORP Notices, ORPIDs, and the FRAM prior to ORP Manager approval.

Issues Management

The ORP Consolidated Action Reporting System (CARS) is an effective corrective action management system which provides timely status and is accessible by management. The purpose of CARS is to provide a structured and consistent approach for the identification, tracking, reporting, and closure of action items associated with ORP work responsibility. Additionally, the ORP Manager's Top Ten Issues and Deliverables Report, an effective method for identifying issues and key deliverables in CARS to senior ORP managers, is derived from the CARS database and reviewed weekly.

Lessons Learned/Operating Experience

For a full description of this management system, see Section 6.1.3.

6.1.2 Principle 2: Clear Roles and Responsibilities

ORP ensures clear and unambiguous lines of authority and responsibility for safety through assigning responsibilities in the FRAM and implementing effective safety management systems.

Attributes and Expected Outcomes (Associated Management System)

- The lines of authority and responsibility for safety are defined for each organization. (ORP FRAM)
- Each Federal employee understands their job responsibilities, objectives, authorities, and areas of required training. (HR Management, position descriptions (PD), individual performance plans [IPP])
- Staff understand the importance of adhering to nuclear safety standards. (ORP FRAM, ISMS)
- Employees offer innovative ideas to help solve problems and improve operations. (individual development plans [IDP])
- Responsibility and authority for safety are well-defined, understood, and integral to work scope performance. (ORP FRAM, IPPs)

- Single-point accountability is maintained for important-to-safety decisions, allowing for ongoing assessment and feedback. (ORP FRAM, IPPs)
- Organizational safety responsibilities are comprehensive. (ORP FRAM, IPPs)
- Personnel are held accountable for meeting standards and expectations to fulfill safety responsibilities. (ORP FRAM, HR Management, IPPs)

ORP Management Systems to Execute Outcomes

- ORP FRAM and ISMS
- Human Resource Management
- Workforce Management
- Employee Relations
- Communications

System Policies and Procedures

- a. *ORP M 411.1-1, Safety Management Functions, Responsibilities, and Authorities Manual for the U.S. Department of Energy, Office of River Protection*
- b. *RIMS, Human Resources Management System*
- c. *DOE O 320.1 C1, Acquiring and Positioning Human Resources*
- d. *RIMS, Workforce Management System*
- e. *ORP M 450.4, Rev. 4, Integrated Safety Management System Description*
- f. *RIMS, Communications Management System*

Supplemental Management Actions to Enhance Safety Culture

- Updating the ORP Management Succession Plan for FY 2008 (in progress).
- Scheduled completion of the DOE ORP Federal Safe Work Environment (SWE) Survey by 08/30/07.
- Commenced the People Focus/Morale initiative to improve organizational communication channels, provide more visibility of staff projects, and enhance work environment morale.
- Employee Concerns Program (ECP) brochure updated and distributed to workers.
- Established FY 2007/2008 EM Career Intern Program requirements for interns (mentoring, rotational assignments, and training).
- Highlighted Federal Employee Occupational Safety and Health (FEOSH) office inspections to improve housekeeping and maintenance of the ORP vehicle fleet.
- Completed IDPs for Federal employees.
- Improved the IPPs by more clearly describing safety expectations for Federal employees.

FY 2008 Performance Measures, Objectives, and Commitments (POMC)		
Management System	Performance Measure/Commitment	Owner
ORP FRAM	ORP FRAM is updated annually by 05/31 and submitted to EM-1.	ESQ Manager
Human Resource Management/Employee Training and Development	90% of employees complete IDP commitments as negotiated with supervisor.	All/Human Resources
	Meet EM Career Intern Program requirements for interns (mentoring, rotational assignments, and training).	All/Human Resources
Workforce Management	ORP Human Capital Management Plan is updated annually by 09/30.	Manager/Human Resources
Performance and Recognition Program	IDPs, IPPs, and EJTA's are reviewed and approved by 10/30/07.	All/Human Resources
Continuous Improvement	Perform an annual Assurance System (ORP M 226.1) self-assessment and contractor assessment by 09/30.	ESQ Manager
Communications	Establish communication plans for the Nez Perce, Umatilla, and Yakama Nation Tribes by 09/30/08.	Media Specialist
	Update and implement the ORP External Communications Plan by 09/30/08.	Media Specialist

ORP Management Systems to Execute Principle

ORP FRAM and ISMS

Sections 5.0 and 6.0 of this ISMSD and Appendices A and C of the ORP FRAM establish clear roles and responsibilities for each ORP organizational element. The FRAM flows down the full set of requirements from applicable DOE directives, and defines responsibilities of ORP management and support entities. A matrix of responsibilities for integrated safety management with assignments to specific organizations is included as Appendix A of the FRAM.

The FRAM identifies the ORP organization lead for implementation of the requirements, policies, manuals, procedures, and plans. A lead organization is used in both program and project activities, and denotes the organization responsible for coordination with the other organizations. The assigned lead organization has direct authority for the successful accomplishment of a function or responsibility.

Through IPPs, ORP Federal employees are assigned responsibility and accountability for understanding and implementing established standards for safety, environmental protection, quality, and efficiency. Workers are responsible for their personal safety and the safety of their peers.

The 10 CFR 851 final rule implements a worker safety and health program for the DOE. This program establishes the framework for a worker protection program that will reduce or prevent occupational injuries, illnesses, and accidental losses by requiring DOE contractors to provide their employees with safe and healthful workplaces.

Like other DOE regulations that apply to DOE contractors, this provision requires contractors to prepare enforceable program plans that must be approved by DOE. It then allows DOE to employ contractual mechanisms, such as reduction in fees, or to assess a civil penalty when a contractor fails to comply with the provisions of this rule. These mechanisms help DOE ensure workers receive an appropriate level of protection while performing activities that involve exposure or the potential for exposure to workplace safety and health hazards.

ORP approved all three prime contractors Worker Safety and Health Plans (WSHP) well before the May 25, 2007, DOE Headquarters (DOE HQ) due date.

Human Resource Management

The Human Resources (HR) Management System is the primary vehicle for ensuring the Federal staff is qualified to accomplish assigned responsibilities and requirements. The HR Management System provides management reasonable assurance that personnel practices are in place to accomplish effective communication and leadership preparation.

The ORP HR Management System encompasses the following eight subsystems: Workforce Management, Performance and Recognition, Employee Relations, Training and Employee Development, Equal Employment Opportunity, Employee Assistance, Labor Contract Management, and Merit Promotion. The ORP Employee Concerns Program (ECP) is established as a standalone system.

The ORP Deputy Manager is delegated authority to execute the full range of day-to-day activities and personnel management responsibilities regarding employees who report directly to the ORP Manager. Specific roles and responsibilities for safety are clarified further in ORP implementing documents (PDs and IPPs), which further specify roles, responsibilities, and levels of authority for specific work activities and functions.

Workforce Management

Workforce Management involves determining the Federal baseline work scope requirements and skill needs for each year of execution. Management reviews workforce needs for the outyears and prepares a resource profile, qualification, and skill need analysis. The data is reviewed by senior management to ensure an equitable resource plan will be in place each year. Specific functions include: resource allocation, reorganizations, filling vacant positions, time and attendance, flexible work time, and employee terminations/separations.

Employee Relations

Employee Relations is the process used to provide guidance, consultation, and assistance to management and employees on grievances, appeals, adverse actions, employee discipline, and related matters. ORP utilizes Richland Operations Office (RL) HR Management Division to support these functions.

Communications

The Communications Management System provides information to ORP management, ORP workers, DOE HQ, regulatory agencies, stakeholders, governmental and community entities, public, media, and Tribal Nations. To build an understanding and support for the Hanford Site mission, the Communications Management System disseminates information regarding the RPP mission, conduct of safe work practices, budget data, work progress, and environmental compliance. The Communications Management System consists of three primary elements:

- Internal communications directed to employees, DOE HQ, and other DOE sites
- Public affairs directed to the media, Hanford Advisory Board (HAB), stakeholders, and the public
- Intergovernmental affairs directed to state, local, and federal government officials, and Tribal Nations

Internal communications provides procedures and guidance for preparing employee announcements; all-employee meetings; distribution of budget data; newspaper articles; submitting articles for publication in Friday Facts for Feds; developing and publishing electronic information on the Hanford Intranet; and helping ORP workers coordinate Hanford Site tours for DOE and contractor program visits.

Additionally, Communications coordinates with the HAB. The HAB is an independent, non-partisan, and broadly representative body consisting of a balanced mix of the diverse interests that are affected by Hanford Site cleanup issues. The primary mission of the Board is to provide informed recommendations and advice to the DOE, the [U.S Environmental Protection Agency](#) (EPA), and the [Washington State Department of Ecology](#) (Ecology) on selected major policy issues related to the cleanup of the Hanford Site.

6.1.3 Principle 3: Competence Commensurate with Responsibilities

To ensure personnel possess the experience, knowledge, skill, and abilities necessary to discharge their responsibilities, ORP has implemented effective management systems to identify needed skills, evaluate the employees' skills, identify skills gaps, and arrange for training to eliminate the gaps.

Attributes and Expected Outcomes (Associated Management System)

- ORP recognizes staff is its most valuable asset and has a healthy training program. ORP training ensures technical capabilities are current for the employees. (Training and Development)

- People are competent and expert at the work they perform. (Training and Development)
- Knowledge is shared, differing opinions are acknowledged and workers are involved in decision-making processes. (Communications, Differing Professional Opinion [DPO], and Lessons Learned/Operating Experience)
- Processes are routinely reviewed to improve effectiveness and efficiency. (ISMS, Quality Assurance Program and Oversight)
- Key resources are recruited, selected, and retained within the organization. (HR Management)
- Continuous learning is a sustained value through definitive training and qualification programs. (Training and Development)
- Assignments and delegations of safety are made to individuals with the necessary technical expertise and experience. (ISMS, Training and Development)
- Training upholds management standards and expectations. (Training and Development)
- ORP staff is informed of the underlying lessons learned from significant industry events through a centralized ORP program coordination. (Lessons Learned/Operating Experience)
- Expertise in root cause analysis is applied to identify and correct the fundamental causes of events. (Lessons Learned/Operating Experience)
- Personnel are systematic and rigorous in making decisions which support safe, reliable plant operation and facility construction. (Training and Development)
- ORP cultivates a questioning attitude in its staff. (Training and Development, DPO)
- ORP has a knowledgeable workforce to make a broad spectrum of project, operational, and technical decisions. (Training and Development)
- ORP staff investigate and analyze anomalies. (Training and Development)
- Candid dialogue and debate are present during the evaluation of safety issues. (Root cause analysis, HPI, DPO, Lessons Learned/Operating Experience)
- Decisions and associated assumptions are reviewed against new facts/data to improve the quality of future actions. (Quality Assurance Program, Lessons Learned/Operating Experience)
- Incentive programs reflect a bias toward long-term plant performance and safety. (HR Management)
- Personnel do not proceed in the face of uncertainty. (Training and Development)
- Differing opinions are welcomed and respected; ORP staff has the freedom to raise differing professional opinions. (DPO, procedure developed for management review)

ORP Management Systems to Execute Outcomes

- Training and Qualifications Programs
- Federal Technical Capability Program
- HR Management Systems
- Performance Recognition Program
- Differing Professional Opinion
- Lessons Learned/Operating Experience
- Quality Assurance Program

System Policies and Procedures

- a. *ORP M 411.1-1, Safety Management Functions, Responsibilities, and Authorities Manual for the US Department of Energy, Office of River Protection*
- b. *Safety Oversight (SO) Program Plan, 07-TED-020, Revision 3*
- c. *SO Oversight Qualification Process, SO-DI-001, Revision 2*
- d. *ORP M 243.1, Operational Awareness Oversight Database*
- e. *ORP M 420.2c, Facility Representative Program, Revision 2c*
- f. *DOE Strategic Human Capital Plan (FY 2006-2011)*
- g. *ORP M 414.1, Quality Assurance Program Description, Revision 2*
- h. *ORP M 210.1, Operating Experience and Lessons Learned Program*
- i. *Draft DPO ORPID prepared*
- j. *ORP M 226.1, Assurance System Description*
- k. *RIMS, Training and Employee Development System*
- l. *U.S. DOE Federal Technical Capability Program Corrective Action Plan, Revision 1, January 2007*
- m. *DOE O 331.1B C1, Employee Performance Management System*
- n. *DOE O 360.1B, Federal Employee Training*
- o. *RIMS, Human Resource Management System*

Supplemental Management Actions to Enhance Safety Culture

- Development of the ORP Training and Qualifications Management Plan (in concurrence).
- 8-hour HPI Fundamentals course for DOE ORP staff.
- 32-hour HPI Fundamentals Certificate course for DOE ORP staff.
- HPI Continuing Training Sessions #1 and #2 on error precursors and organizational weaknesses.
- Energy Facilities Contractor Group training in Atlanta, Georgia, for event investigation using HPI Tools and the Hanford Lesson Learned Hanford Pilot Implementation of HPI (Role of DOE in Implementing HPI).
- Facility Representative 2007 conference – training on HPI event investigation techniques.
- NQA-1 Lead Auditor and QA Rule Overview training established for July 2007.
- ORP All-Hands Meeting – change management training.
- Although not required for DOE field offices, ORP implemented [ORP M 226.1, Assurance System Description](#), which describes the assurance systems used by ORP to oversee operation and maintenance of the Hanford Tank Farms, including the 242-A Evaporator and the 222-S Laboratory; design and construction of the Hanford Site WTP; design and construction of the Demonstration Bulk Vitrification System, design and construction of the Integrated Disposal Facility, and future design and construction activities.
- Actively participated with the DOE HQ team for development and approval of ORP M 450.4, *Integrated Safety Management System Description*.
- Actively supported development of the EM ISMS description, which was issued in April 2007.
- Maintained Subject Matter Expert, Facility Area Engineer, and Safety Oversight qualification programs.
- Institutionalized [DOE-HDBK-1092-98, DOE Handbook Electrical Safety](#).
- Initiated actions to establish safety conscious work environment training for the Federal Technical Capabilities Program (FTCP), Energy Facility Contractors Group, and ORP staff.
- Maintaining an active intern program.

FY 2008 Performance Measures, Objectives, and Commitments (POMC)		
Management System	Performance Measure/Commitment	Owner
Qualifications Program Plan	Issue the updated Safety Oversight (SO) Qualifications Program Plan by 04/30/08.	Tank Farms Engineering Division Director
	The ORP Technical Qualification Program (TQP) is accredited to the Institute for Nuclear Power Operations (INPO) standards by 09/30/08.	Tank Farms Engineering Division Director (Detail)
Training, Federal Technical Capability Program	90% of all AMD personnel will meet: <ul style="list-style-type: none"> • Qualification standards of the Acquisition Career Development (ACD) program (Individuals receiving a written waiver from DOE HQ are excepted) • ACD Continuous Learning Requirement 	Acquisition Management Director
Lessons Learned	Distribute key lesson learned items to Federal staff within 30 days of receipt.	Lessons Learned Program
Performance and Recognition Program	IDPs, IPPs, and EJTA's are reviewed and approved by 10/30/07.	All/Human Resources
HR Management and Training	Meet the EM Career Intern Program requirements for interns (mentoring, rotational assignments, and training).	All/Human Resources

ORP Management Systems to Execute Principle

Training and Qualifications Programs

Line management, HR, and Training work together to ensure Federal employees are trained and qualified for each position. Position descriptions (PD) are issued to each worker defining work and safety responsibilities. Line managers work with employees to establish position qualifications and requirements. An IDP is prepared for each employee that identifies training and qualification actions. This plan is approved annually by ORP supervisors in accordance with [DOE O 360.1B, Federal Employee Training](#).

ORP supervisors, with the assistance of the RL HR Management Division, determine the need for training. Objective evidence of completed training is maintained by RL HR Management Division and the manager.

Qualification for specific job categories is based on requirements established by ORP management. Management reviews job categories to determine the following:

- Critical and unique job functions or tasks that require highly technical, specialized skills
- Demonstration of competency before performance
- Requirements of a specialized certification

Based on this review, qualification requirements ensure employee proficiency is established and documented. The responsible ORP supervisor uses the services of the RL Office of Employee and Organizational Development to maintain the documentation (objective evidence) that attests to the qualification, re-qualification, or certification of assigned staff for which a formal qualification determination is required. ORP supervisors also ensure their staff, including those entering radiologically controlled areas, receive and remain current with Hanford General Employee Training (HGET).

Staff members who perform assessments must be trained to the procedure or process that will be used for assessments. The processes for qualification of assessment personnel are described in [ORP M 220.1, *Integrated Assessment Plan*](#).

[DOE O 360.1B](#), Chapter II, prescribes the general requirements associated with the Technical Qualification Program (TQP) and outlines the content requirements for DOE HQ and Field Office procedures that govern implementation of the ORP program. The RL Office of Training has lead responsibility for implementing the program and provides this function for ORP. This is a rigorous qualification program specifically designed to ensure technical competence in mission-related areas, commensurate with job responsibility. ORP has employees participating in the TQP by functional area, including: nuclear safety systems, mechanical systems, fire protection, environmental compliance, chemical processing, facility maintenance management, radiation protection, waste management, and safeguards and security.

Managers with technical employees whose duties and responsibilities require them to provide assistance, guidance, direction, oversight, or evaluation of contractor activities that could impact the safe operation of a defense nuclear facility are qualified in accordance with the TQP. This includes the Safety System Oversight Program, Facility Representative Program, Facility Area Engineer Program, and Senior Technical Safety Manager Program.

As part of ORP's personnel performance management system, employees meet with their supervisor to discuss and agree upon an annual IDP containing qualification activities tailored to specific job duties. This process applies to all employees and ensures employee competence is not only maintained, but continually enhanced.

Federal Technical Capability Program

The DOE Federal Technical Capabilities Program (FTCP) provides for recruitment, deployment, development, and retention of personnel with the demonstrated technical capability to safely accomplish DOE missions and responsibilities. The ORP Manager supports the FTCP panel, which reports to the Deputy Secretary, and is responsible for overseeing and resolving issues affecting the program. DOE's vision is for its technical personnel to be recognized among all Federal agencies for the excellence of its Federal staff.

DOE's vision is described in the Implementation Plan in response to Defense Nuclear Facilities Safety Board (DNFSB or Board) Recommendation 2004-1, [Oversight of Complex, High-Hazard Nuclear Operations, \(2004-1 IP\)](#). Commitment 13 of that Implementation Plan states that the Panel will "...develop corrective actions to improve recruiting, developing, training, qualifying, maintaining proficiency, and retaining technical personnel, as well as FTCP effectiveness. The Corrective Action Plan will include a prioritized list of key positions that should be filled to enhance safety."

As such, the Chairman established an Assessment Team to review the results of the working group. The Assessment Team review resulted in a corrective action plan that identifies the following major actions:

- Conduct a functional workforce analysis as a basis for meeting the needs of the organization's missions for the next five (5) years.
- Establish and implement a corporate accreditation process and plan based on the Institute for Nuclear Power Operations (INPO) model for the TQP. The FTCP Panel Chair will oversee this process for the Deputy Secretary.
- Re-establish the corporate Technical Leadership Development Program (technical intern program) and institutionalize it through commitments to funding and recruitment on an annual basis.
- Build on the Facility Representative Program as a model for the Senior Technical Safety Manager qualification program and other functional area qualification programs.
- Revise [DOE M 426.1-1A](#), *Federal Technical Capability Manual*, to incorporate and institutionalize changes in FTCP expectations developed as part of the DOE's 2004-1 Implementation Plan.

A total of 16 of the 28 actions from the original corrective action plan are complete. As with the original corrective action plan, the FTCP Panel will take the DOE lead in managing implementation of the corrective actions. Upon completion of this corrective action plan, the FTCP will report to the Deputy Secretary. The report will include an assessment of the effectiveness of the actions taken.

Performance Recognition Program

ORP recognizes the importance of employee contributions to the success of our mission. Employee actions which improve the performance in the areas of safety, environmental excellence, quality of work, leadership, teamwork, customer satisfaction, and cost effectiveness is essential to our success. The Performance Recognition Program is used to recognize employee contributions and successes.

Differing Professional Opinion

A system for resolving issues where staff may have a minority or DPO regarding a technical item is important to organizational trust. ORP developed a draft DPO procedure for concurrence, which is expected to be issued the end of FY 2007. The program includes resolution of opinions related to a policy/practice that:

- Differs from previous management decisions, stated positions, or established policies or practices.
- In the opinion of the employee, has not been considered adequate.
- If not adopted, has a reasonable probability of having significant negative impact on the activity in question with respect to safety, efficiency, or quality.

Lessons Learned/Operating Experience

The ORP operating experience and lessons learned program is a mechanism for feedback and improvement within DOE. This program expands the sharing of good work practices among DOE and its contractors in order to prevent the recurrence of adverse operating incidents. Lessons learned are derived from information generated by the DOE Corporate Operating Experience Program, ORP contractor lessons learned programs, and other lessons learned programs.

ORP and RL issued a lessons learned document that captures the results of a pilot initiative including the DOE offices and prime contractors. Pilot results concluded that HPI is fully compatible with ISMS. Six HPI applications are included in this report: HPI Steering Committee, HPI Self Assessment, HPI Training, Work Planning and Control, Culpability Matrix, and Event Investigation/Cause Analysis. Example benefits identified during the pilot include:

- Reduced events with consequences
- Increased identification of lower significance problems with resulting improvement in continuous improvement and development of a learning culture
- Realization that people make mistakes, and the role of the organization in causing individual errors, resulting in improved identification and correction of organizational weaknesses that contribute to human error
- Simpler procedures and work packages
- Improved identification and control of critical steps
- Improved event investigation
- Consistent and fair disciplinary process that emphasizes HPI principals and encourages reporting

ORP and RL presented results of these lessons learned at the Environmental Management Field Manager's video teleconference on May 9, 2007. Subsequently, ORP/RL have been requested to provide additional HPI presentations/training.

Quality Assurance Program

For a full description of this management system, see Section 6.1.7.

6.1.4 Principle 4: Balanced Priorities

The ORP Project Management System and budget formulation process requires appropriate allocation of resources to address safety, programmatic, and operational considerations. Industry-accepted project management systems are in place to guide, monitor, and evaluate work scope performance. Activities needed to protect the public, workers, and the environment are funded as top priority.

Attributes and Expected Outcomes (Associated Management System)

- ISMS principles and functions drive work planning and execution. (Project Controls)
- Project management systems are in place to plan the mission, evaluate performance, control cost to authorized funding levels, and implement baseline changes as needed. (Project Controls, Budget Execution, Baseline Change Management)
- Safety and quality concerns receive balanced consideration in funding/schedule decisions. (Project Controls, Budget Formulation and Execution)
- System checks and balances ensure safety considerations are adequately weighed and prioritized. (Project Controls)
- Baselines are vigorously maintained and controlled to ensure only authorized work scope is performed. (Baseline Change Management)
- Monthly project and program reviews occur with the contractor to review technical, cost, schedule, and safety performance. (Project Management)
- Adequate resources are available for safety upgrades to aging infrastructure. (Project Controls, Budget Formulation and Execution)

ORP Management Systems to Execute Outcomes

- Project Management
- Project Controls and Performance Measurement Baseline (including Change Management)
- Risk Management
- Acquisition Management
- Asset Management
- Financial Management
- Budget Formulation and Execution

System Policies and Procedures

- a. 2007 Tank Farms Project Execution Plan approved by EM Deputy Secretary
- b. WTP Project Execution Plan, <http://apweb04.rl.gov/doeorp/orp/index.cfm?PageNum=6>
- c. *ORP M 413.3-1a, WTP Baseline Change Control*
- d. *ORP M 413.3-1b, Baseline Change Control for Tank Farms*
- e. *ORP M 413.3-1c, River Protection Project Integrated Risk Management Process Manual*
- f. *ORP M 413.3-1d, River Protection Project Federal Risk Management Plan*
- g. *ORP M 450.4, Integrated Safety Management System Description*
- h. *DOE/RL-2002-47, Rev. D, Performance Management Plan for the Accelerated Cleanup of the Hanford Site*, <http://www.hanford.gov/docs/rl-2002-47/rl-2002-47.pdf>
- i. *DOE O 413.3A, Change 1, Program and Project Management for the Acquisition of Capital Assets*

Supplemental Management Actions to Enhance Safety Culture

- Senior management conducts routine strategy meetings to review work scope priorities, baseline work plans, and budget request documents, ensuring safety requirements are highest priority for funding allocation.
- ORP Manager initiated a Senior Management Integration Team (SMIT) to review existing and potential project risk areas and mitigation actions.
- ORP provides annual budget request information to the general public, regulators, and the HAB to collect feedback and ideas for improvement (completed June 2007).
- Annual budget and technical presentations are posted to the ORP web page for public review; presentations identify work scope priorities and safety requirements to receive adequate funding allocation.
- DOE, EPA, and Ecology have a comprehensive cleanup and compliance agreement (*Hanford Federal Facility Agreement and Consent Order* [HFFACO] a.k.a. Tri-Party Agreement <http://www.hanford.gov/?page=91&parent=0>). The Tri-Party Agreement (1) defines and ranks cleanup commitments, (2) establishes responsibilities, (3) provides a basis for budgeting, and (4) reflects a concerted goal of achieving safety and regulatory compliance with enforceable milestones.

FY 2008 Performance Measures, Objectives, and Commitments (POMC)		
Management System	Performance Measure/Commitment	Owner
Project Management System	Renegotiate applicable Tri-Party Agreement milestones by 10/01/07.	NEPA Compliance Officer
	Corrective actions are reviewed monthly with the contractor for any cost or schedule variance which is greater than a negative 10%.	WTP Manager/ Tank Farms Manager
	ORP conducts monthly all-employees meeting with an emphasis on safety and project management.	ORP Manager
Project Controls and Baseline Management	ORP dispositions Level 1 contractor change requests to DOE HQ within 30 days of receipt.	Tank Farms Manager/ WTP Manager
Budget Formulation and Execution	Submit the budget request to EM-1 per the annual guidance schedule.	OPA Director
	Execute ORP's FY 2008 Budget without an anti-deficiency.	OPA Director
Financial Management System	No significant ORP findings on the FY 2008 OIG/KPMG Consolidated Financial Statement Audit and data accuracy/integrity are maintained in the financial systems.	OPA Director

ORP Management Systems to Execute Principle

Project Controls and Performance Measurement Baseline (including Change Management)

The ORP Project Management System provides requirements and guidance to Federal employees planning and overseeing Hanford Site cleanup and closure activities. The ORP Project Management System establishes the framework and context for implementing [DOE P 413.1, Program and Project Management Policy for the Planning, Programming, Budgeting, and Acquisition of Capital Assets](#); and [DOE O 413.3A, Change 1, Project Management for the Acquisition of Capital Assets](#). EM-1 identifies mission activities which flow down into ORP management systems and work activities.

The ORP Project Management System is founded upon the key principles of line management accountability, effective planning, management of risk, accurate performance measurement, and communication with contractors/stakeholders. ORP project management ensures work is executed in accordance with the contractor baseline plan. This assurance occurs through monthly project reviews and operation of the change management system, and the DOE Integrated Project Team (IPT), which is a cross-functional group of individuals organized for the specific purpose of delivering a project to an external or internal customer.

ORP is responsible for the management of the RPP and is implementing cleanup work under two prime contracts:

- The Tank Farms Contractor (TFC) provides for the storage and safe retrieval of tank wastes, storage and disposal of treated waste, decontamination, and decommissioning of tanks, and initiation of post closure monitoring of the tank farms (DE-AC27-99RL14047).
- The WTP Contractor (WTPC) is tasked to design, construct, and commission a chemical processing plant that will treat high-level and low-activity liquid waste and immobilize it by glass vitrification for final disposal, and support the transition of the plant into full operations (DE-AC27-01RV14136). Operation of the WTP is planned for a separate contract awarded after commissioning.

The TFP and WTP Project Execution Plans (PEP) describe how ORP executes and manages these projects in accordance with [DOE O 413.3A](#). The ORP PEPs are submitted to the Secretarial Acquisition Executive in support of the baseline plan addressing scope, schedule, cost, and risk management activities. The Deputy Secretary approved the Tank Farms PEP for the near-term period on April 6, 2007. The Deputy Secretary approved the WTP PEP on July 9, 2007; the WTP PEP is located at: <http://apweb04.rl.gov/doeorp/orp/index.cfm?PageNum=6>.

The WTP revised total project cost (TPC) of \$12.263 billion and project completion date of November 2019 received Secretarial Acquisition Executive approval on December 22, 2006. This new performance baseline is based on a May 2006 Estimate At Completion provided to ORP by the WTPC; recommendations from the U.S. Army Corps of Engineers' independent validation review; an external review of the baseline change proposal; and the recommendation of DOE's Office of Engineering and Construction Management.

On May 14, 2007, Deputy Secretary Clay Sell approved the TFP near-term baseline as presented at the meeting of the Energy Systems Acquisition Advisory Board on January 5, 2007. The approved near-term baseline cost is \$2.454 billion for the period from FY 2007 through FY 2012. The requirement to develop and approve a near-term baseline for operating projects stems from Congressional direction in the FY 2004 appropriations bill (Energy and Water Development Appropriations Bill, H.R. 108-212). The TFP near-term baseline reflects technical challenges encountered in retrieving tank waste coupled with the delays in the WTP schedule.

ORP uses several methods to control cost at the TFP and WTP. The primary method concerns analysis of monthly technical, cost and schedule performance information that highlight trends, potential cost growth, critical path progress, and project forecasts. Additionally, ORP controls changes affecting the design authorization basis which provides the technical baseline for the project.

In addition to the above baseline planning actions, ORP is evaluating multiple low-activity waste (LAW) treatment approaches, including the early start of WTP LAW operations and supplemental LAW treatment technologies, and the related costs, schedules, and risks with each approach. The draft waste treatment *Mission Completion* report was reviewed by the DOE senior sponsors and the Consortium for Risk Evaluation and Stakeholder Participation (CRESP) and comments were received on June 22, 2007.

Risk Management

Risk management is an integral part of the ORP project management function, which is to allocate resources to achieve project goals within an acceptable level of risk. ORP management recognizes risk is inherent in any project regardless of project complexity and that it is necessary to analyze future project events to identify potential risks and take measures to handle them. The DOE approach to managing risk is integrated, forward-looking, disciplined, and continuous. The key to successful risk management is early recognition of risks, planning, and aggressive execution of risk handling actions.

The *River Protection Project Risk Management Process Manual* (ORP M 413.3-1c) implements the RPP Risk Management Program. ORP M 413.3-1c implements the risk management requirements of DOE O 413.3A, and describes the overall process for managing risks within the RPP.

Acquisition Management

The Acquisition Management system provides direct support to the ORP for the purchase and delivery of services, materials, equipment, and supplies. The DOE HQ Procurement Executive has delegated procurement authority to the Head of the Contracting Activity (ORP Manager) subject to various approval thresholds. The ORP Manager has further delegated this authority to the AMD Director and designated contracting officers. By this delegated authority, contracting officers are authorized to enter into, administer, and terminate contracts. Contracting officers are responsible to ensure that all requirements of law, regulations, executive orders, and other applicable procedures are met.

Effective acquisition management ensures quality goods and services are obtained at reasonable prices, in a timely fashion, and in accordance with statutory and regulatory requirements and project needs. The system also ensures work is performed to established technical and quality standards, and effective administrative controls.

Asset Management

Effective site management requires DOE to provide responsible stewardship of Hanford Site assets and resources. This management system provides stewardship of Federal assets through processes addressing real estate, real property, and personal property requirements. Program descriptions provide discussions of DOE's programs and approaches in the areas of cultural resources, energy and utilities management, and life-cycle asset management.

Financial Management

The ORP Financial Management system guides the formulation, monitoring, tracking, and execution of the DOE budget, funding, and accounting processes. The system includes processes used to allocate the appropriated funds allotted to ORP by DOE HQ during the course of the current fiscal year. Additionally, the system addresses key internal financial control processes designed to help ensure fiscal integrity and avoid the misuse or loss of federal dollars. Effective use of the financial management system processes directly supports completion of the ORP mission areas on-schedule and within project budget.

Budget Formulation and Execution

The DOE annually develops five-year budgets. ORP is currently working to the 2007 Operating Plan due to the full-year continuing resolution, and the President recently released the 2008 budget request to Congress. Based on 2007 and 2008 budget information, cleanup priorities, and input from the public, regulatory agencies, tribes, HAB, and others, ORP and EM are formulating its FY 2009 – FY 2013 budget and life-cycle planning requirements.

ORP predicates its budget formulation on the approved project baselines for the TFP and WTP. The FY 2009 – FY 2013 budgeting process is founded on prioritized risk reduction and cleanup. The ORP top project and cleanup priorities include:

- Safety storing 53 million gallons of tank waste
- Resuming full WTP construction
- Managing the Tank Farms and WTP as an integrated system
- Continuing tank waste retrieval
- Continuing soil characterization
- Pursuing supplemental low-activity waste treatment capabilities
- Completing the Tank Closure and Waste Management Environmental Impact Statement (EIS)
- Continuing open and honest dialog with stakeholders and the public

For budget execution control, ORP follows the requirements of [DOE M 135.1-1A](#), *Department of Energy Budget Execution Funds Distribution and Control Manual*. Proper execution of the ORP budget is critical to achieving the goals established through the planning and budget formulation processes. The DOE budget execution includes four key steps:

1. Establishing and maintaining the base table. The base table displays all obligation authority available to DOE by appropriation and by program/project/activity within each appropriation. Obligations of funds must not exceed the total of the appropriation, apportionment, reapportionment, or allotment.
2. Obtaining apportionments from the Office of Management and Budget (OMB), and appropriation warrants from the Department of the Treasury. The OMB apportionment process makes funds available to DOE for obligation and expenditure.
3. DOE issuing approved funding programs and allotments to the field offices (ORP).
4. Processing reprogramming, restructuring, appropriation transfer, rescissions, and deferrals related to the appropriation accounts of DOE.

6.1.5 Principle 5: Identification of Safety Standards and Requirements

Before work is performed, the ORP Safety Basis System ensures the associated hazards are evaluated, and an agreed-upon set of safety standards and requirements are established/properly

implemented to provide adequate public, worker, and environmental protection against adverse consequences.

Attributes and Expected Outcomes (Associated Management System)

- ORP approved safety basis standards serve as the basis for the design, construction, and maintenance of ORP facilities using nuclear industry codes and requirements. (Safety Basis Management, Authorization Basis Management)
- Clear technical safety directives are established based on sound engineering data and judgment. (Safety Basis Management, Authorization Basis Management)
- Clearly defined safety requirements are incorporated into operations and construction contracts. (Safety Basis Management, Authorization Basis Management)
- Features designed to maintain critical safety functions are recognized and managed as priority items. (Safety Basis Management, Authorization Basis Management)
- ORP controls design and operating margins and approves changes only after consideration and analysis. (Safety Basis Management, Authorization Basis Management)
- Risk analyses outcomes are considered in plant activities and process changes. (Environmental Management System)
- Program establishes the framework for a worker protection program that will reduce or prevent occupational injuries, illnesses, and accidental losses by requiring DOE contractors to provide their employees with safe and healthful workplaces. (Safety and Health)

ORP Management Systems to Execute Outcomes

- Safety Basis Management
- Authorization Basis Management
- Safety and Health Management (including Occupational Safety)
- Security and Emergency Planning
- Environmental Management System
- ISMS Annual Declaration Process
- Regulatory Compliance
- Fire Protection

System Policies and Procedures

- a. [ORP PD 420.3, *Safety Basis Management*](#)
- b. [10 CFR 851, “Worker Safety and Health Program”](#)
- c. [ORP M 420.1-1, *Fire Protection Program*](#)
- d. [ORP FEOSH Program Plan](#)

- e. [24590-WTP-SRD-ESH-01-001-02, Safety Requirements Document](#)
- f. [ORP M 425.1, Startup and Restart of Tank Farm Contractor Nuclear Facilities](#)
- g. [HNF-SD-MP-SRID-001, Tank Farm Contractor Standards/Requirements Identification Document](#)
- h. ISMS Readiness Declaration Process Desk Instruction 3.1
URL: <http://apweb04.rl.gov/oeorp/orp/docs/94/docs/DI-3-1.pdf>

Supplemental Management Actions to Enhance Safety Culture

- WTP Safety Basis and Authorization organization moved to the line.
- Completed an ORP FEOSH assessment for office and vehicle fleet safety.
- Implementation of the Environmental Management System (EMS) per [DOE O 450.1, Environmental Protection Program](#), is complete.
- Office of Health, Safety and Security conducted an ORP site assistance visit June 11 to 14, 2007, in response to the National Fire Protection Association (NFPA) 1710 response time needs requirement. The reviewers concluded it is not necessary to place fire personnel directly adjacent to the WTP.
- Federal ISMS and annual readiness declaration process is documented in a desk procedure to guide staff through the steps (ISMS Readiness Declaration Process Desk Instruction 3.1).

FY 2008 Performance Measures, Objectives, and Commitments (POMC)

Management System	Performance Measure/Commitment	Owner
Safety and Health	Zero ORP Federal staff recordable accidents and injuries in a fiscal year.	All Managers/ Directors
	Evaluate each of the contractors 10 CFR 851, "Worker Safety and Health Program," implementation by 09/30/08 regarding: <ul style="list-style-type: none"> • Ability to ensure zero fatalities • Zero enforcement actions • Reduction in lost work day rate compared to previous year • WSHP configuration control 	Verification and Confirmation Division
	Complete a DOE ORP Federal Safe Work Environment (SWE) Survey by 08/30/07.	Directives Management

FY 2008 Performance Measures, Objectives, and Commitments (POMC)		
Management System	Performance Measure/Commitment	Owner
ISMS	Review and approve contractor ISMS descriptions and proposed performance measures annually by 09/30/08.	ESQ Manager
	Conduct annual ISMS assessment of the Analytical Services Production Contractor by 07/31/08.	Tank Farms Manager
	Conduct annual ISMS evaluation of the Tank Farms Contractor by 08/15/08.	Tank Farms Manager
	Annually self-assess the ORP ISMS and incorporate corrective actions by 09/30.	ESQ Manager
	Update and issue the ORP ISMSD by 09/30/08.	ESQ Manager
	Complete Oversight Performance Improvement Team Recommendations to senior management by 10/30/07.	Verification and Confirmation Division
	Issue ORP ISMS Annual Declaration Readiness Report by 09/30/08.	WTP Manager/ Tank Farms Manager
Safety Basis and Authorization Basis Management	At least 95% of the WTP Authorization Basis Amendment Request (ABAR) reviews are completed on schedule per the WTP Work Plan commitments.	WTP Engineering Division Director
	Tank Farm documented safety analysis (DSA) changes are processed and closed within 30 days after receipt.	Tank Farms Engineering Division Director (Detail)
Environmental Management System	Perform an ORP Environmental Management System (EMS) Program self-assessment and complete contractor EMS assessments by June 30, 2008.	ESQ Manager
Safeguards and Security Emergency Management	Zero security infractions for ORP Federal staff in a fiscal year.	TF Operations Division

ORP Management Systems to Execute Principle

Safety Basis Management System

For the Tank Farms, the safety basis (as defined and used in [10 CFR 830.3](#), “**Nuclear Safety Management**”) is comprised of the documented safety analysis (DSA) and hazard controls that provide reasonable assurance a DOE nuclear facility can be operated in a safe manner compliant with requirements. The authorization bases, as identified in the authorization agreement, are

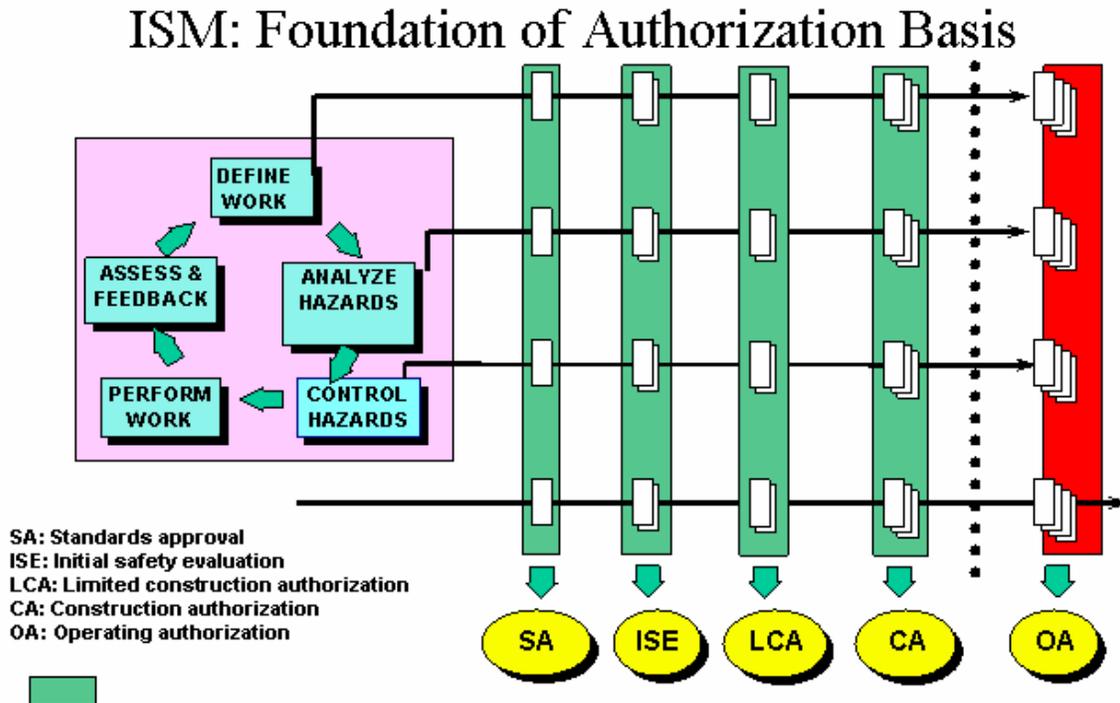
reviewed and approved by ORP. Similarly, safety basis documents are also reviewed and approved by ORP. Both types of documents are subject to the unreviewed safety question (USQ) process as they contain assumptions and analyses that support the summary documents reviewed and approved by ORP. The bases for ORP approval of safety-related documents are the proposed risk and hazard controls as identified in the safety evaluation report (SER).

Authorization Basis Management

The ORP Federal organization is responsible for operational overview of ORP nuclear facilities and non-facility nuclear operations, and approval of nuclear safety documentation for nuclear facilities. ORP has systematic DSA and Authorization Basis Management systems to ensure the appropriate safety standards are in place to identify the applicable facility and operational hazards.

For WTP, the contract establishes the requirement to use an ISMS process to develop the authorization basis for the WTP. The WTPC is required to: (1) define its processes, (2) identify the hazards associated with the defined processes, (3) develop control mechanisms to mitigate the hazards, and (4) define standards to implement the control mechanisms. The WTPC submits its analysis and proposed standards to ORP for approval. The process, graphically presented in Figure 5, is iterative, with feedback and improvement incorporated as the design matures.

Figure 5. WTP ISMS Implementation



The WTP authorization basis is comprised of the approved preliminary safety analysis report (PSAR), *Safety Requirements Document (SRD)*, and the Quality Assurance Program Description (QAPD). The PSAR is updated biennially, the QAPD is updated annually, and the SRD, as well

as the Radiation Protection Program, are updated as needed. Pending these updates, changes to details in the PSAR or SRD are made using Authorization Basis Amendment Requests (ABAR). These changes are developed by the contractor using an ISMS hazard analysis process, and reviewed by DOE for consistency with contractually required ISMS principles and consensus standards. During FY 2006, 27 ABARs were conducted. For FY 2007, 39 ABARs were scheduled, with 22 completed to date.

The SRD ([24590-WTP-SRD-ESH-01-001-02](#)) provides formal documentation of the safety requirements and standards resulting from the WTP Project safety standards and requirements identification process. Structures, systems, and components that serve to provide reasonable assurance that the WTP facility can be operated without undue risk are classified as “important-to-safety.”

The WTP authorization basis oversight process involves multiple steps of contractor submittals and specific authorization actions. Contractor submittals provide the information and commitments that serve as the basis for authorization decisions made by ORP. The authorization basis, as approved by DOE ORP, describes the safety basis for the facility, and is the benchmark used to evaluate the safety implications of changes made to the WTP design. As construction and design matures, the contractor prepares and submits periodic updates of authorization basis documents to ORP. Each update includes a description of the change and the associated benefit of implementation.

USQs provide the change control process (similar to the WTP ABAR process) for protecting the level of risk and underlying assumptions/controls identified in the safety documents approved by ORP. The process occurs through a set of questions which must be resolved to ORP’s satisfaction before the change is approved. The USQ program is monitored in accordance with [ORP PD 420.3](#), Section 6.3.

Safety and Health Management System (Including Occupational Safety)

In support of the ORP mission areas, the Safety and Health Management System enables the efficient and effective delivery of government furnished items and services (GFI/S) and provides operational awareness of safety, health, and engineering input. This includes ORP decisions for the start and restart of facilities; review and approval of contractor Authorization Basis, QA, ISMS, and other safety documentation; and the accident investigation process.

The Safety and Health Management System also establishes the Federal Employee Occupational Safety and Health (FEOSH) Program for ORP employees. This program implements the expectation that all employees maintain an adequate understanding of occupational safety and health, and an awareness of the potential hazards and unsafe conditions at their workplace. This management system also delineates the objectives and roles and responsibilities for chemical management, fire protection, criticality safety, safety and health reporting, and engineering.

Security and Emergency Planning

The RL Manager, in partnership with the ORP Manager, ensures effective integration between ORP and other Hanford Site activities. The RL Manager provides administrative and technical support to ORP, as requested by the ORP Manager. Key areas of integration include security and emergency services management.

The Security and Emergency Services management system ensures appropriate levels of protection against unauthorized access; theft, diversion, or misuse of nuclear materials; espionage; loss or theft of classified matter or government property; and hostile acts that may cause adverse impacts on national security or health and safety of DOE and contractor employees, the public, or the environment. This system ensures emergency preparedness for Hanford Site incidents should the occasion dictate a response. This system ensures compliance with the DOE and other safeguards and security series of Orders and compliance with the emergency preparedness and fire services series of directives.

Environmental Management System

The Environmental Management System (EMS) implements DOE O 450.1, *Environmental Protection Program*, to ensure environmental protection is integrated into all processes associated with ORP activities, and to achieve and maintain environmental compliance and regulatory excellence while accomplishing Hanford Site closure.

ORP has established as a priority the protection and stewardship of the environment, both on and off the Hanford Site. We expect outstanding environmental performance as a matter of course in the DOE. This is accomplished by implementing DOE O 450.1 and identifying and evaluating environmental hazards, instituting environmental hazards controls, and by incorporating pollution prevention and waste minimization into all activities. By meeting the most rigorous standards, ORP protects the environment and the public, and provides safe and healthful workplaces for its employees. Fundamental to the attainment of the DOE Environmental Policy are personal commitment and accountability, mutual trust, open communications, continuous improvement, worker involvement, and full participation by interested parties.

Please see Section 7.0 for a discussion of how ORP is integrating EMS into ISMS.

ISMS Annual Declaration Process

See Section 9.0 for the detailed ORP Annual ISMS Declaration of Readiness process.

Regulatory Compliance

The ORP Environmental Team manages and oversees environmental compliance, Tri-Party Agreement coordination, National Environmental Policy Administration (NEPA), and environmental permitting activities. Key responsibilities include:

- Enforcing compliance documents issued by regulatory agencies, including environmental regulatory guidance, policy, opinions, recommendations, and agency positions
- Review of new, changed, or proposed environmental regulations
- Managing and attending regulatory agency led inspections of facilities or records
- Managing environmental deliverables (e.g., reports, notifications, other required information)
- Obtaining, renewing, and modifying environmental permits

- Developing and managing all aspects of the ORP Environmental Management System and Environmental Compliance and Permitting Program to include the *Resource Conservation and Recovery Act of 1976 (RCRA)*; *Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)*; *Clean Air Act*; *Clean Water Act*; *Toxic Substances Control Act of 1976*; NEPA; and other applicable environmental requirements

The Hanford Site has an established NEPA compliance program. ORP uses the NEPA process in project and program planning to consider environmental factors along with other relevant information. The DOE NEPA Compliance Officer reports to the ESQ Director. Responsibilities include:

- Coordinating the environmental impact statement (EIS) technical guidance and Record of Decision documents; supports the EIS scoping and public reviews' comment process
- Developing ORP and RL NEPA procedures and information management requirements
- Coordinating review and approval of Hanford Site NEPA documents

Fire Protection

ORP has a comprehensive fire protection oversight program with the objective of providing an acceptable level of safety from fire and related hazards for the TFP and WTP. This includes appropriate facility and site-wide protection (refer to [ORP M 420.1-1, Fire Protection Program](#)), fire alarm notification and egress features, and access to a fully staffed, trained, and equipped fire department that is capable of responding in a timely and effective manner to site occurrences.

6.1.6 Principle 6: Hazard Controls Tailored to Work Being Performed

The ORP Safety Basis Management System requires and ensures implementation of contractor administrative and engineering controls to prevent and mitigate hazards tailored to the work performed.

Attributes and Expected Outcomes (Associated Management System)

- Work hazards are controlled to prevent or mitigate accidents and incidents. (Safety Basis Management)
- Work hazard analysis is based on sound engineering data and judgment. (Safety Basis Management)
- Work is designed and controlled to reduce/eliminate the hazard. (Safety Basis Management)
- Work is not performed until the hazard analysis is complete and potential threats are eliminated. (Safety Basis Management)

ORP Management Systems to Execute Outcomes

- Safety Basis Management System
- Authorization Basis Management
- Environmental Management System
- ISMS Annual Declaration Process
- Regulatory Compliance
- Fire Protection

System Policies and Procedures

- a. [ORP M 420.1-1, *Fire Protection Program*](#)
- b. [ORP PD 420.3, *Safety Basis Management*](#)
- c. [ORP M 226.1, *Assurance System Description*](#)
- d. [ORP FEOSH Program Plan](#)
- e. [DOE O 440.1A, *Worker Protection Management for DOE Federal and Contractor Employees*, <http://www.directives.doe.gov/cgi-bin/explhcgi?qry1259411322;doe-203>](#)
- f. [24590-WTP-SRD-ESH-01-001-02, *Safety Requirements Document*](#)
- g. [RIMS, *Federal Employee Occupational Safety and Health \(FEOSH\), Hanford's Program*](#)
- h. [DOE O 450.1, *Environmental Protection Program*](#)

Supplemental Management Actions to Enhance Safety Culture

- ORP independent ISMS reviews/assessments were performed in FY 2007 to ensure effective corrective action plan implementation and system improvement.
- EM Comprehensive QA review of the WTP.
- Established NQA-1 lead auditor training for the ORP staff to occur July 2007.
- ORP conducted a WTP inspection to ensure adequate preservation and maintenance of installed or stored plant equipment. ORP concluded that deficient conditions remain and the project requires a sense of urgency for completing equipment preventative maintenance.

FY 2008 Performance Measures, Objectives, and Commitments (POMC)		
Management System	Performance Measure/Commitment	Owner
ISMS	Review and approve contractor ISMS descriptions and proposed performance measures annually by 09/30/08.	ESQ Manager
	Conduct annual ISMS assessment of the Analytical Services Production Contractor by 07/31/08.	Tank Farms Manager
	Conduct annual ISMS evaluation of the Tank Farms Contractor by 08/15/08.	Tank Farms Manager
	Annually self-assess the ORP ISMS and incorporate corrective actions by 09/30.	ESQ Manager
	Update and issue the ORP ISMS Description by 09/30/08.	ESQ Manager
	Complete Oversight Performance Improvement Team recommendations to senior management by 10/30/07.	Verification and Confirmation Division
	Issue ORP ISMS Annual Declaration Readiness Report by 09/30/08.	WTP Manager/ Tank Farms Manager
Safety Basis and Authorization Basis Management	At least 95% of the WTP ABAR reviews are completed on schedule per the WTP Work Plan commitments.	WTP Engineering Division Director
	Tank Farm DSA changes are processed and closed within 30 days after receipt.	Tank Farms Engineering Division Director (Detail)
Environmental Management System	Perform an ORP EMS Program self-assessment and complete contractor EMS assessments by June 30, 2008.	ESQ Manager

ORP Management Systems to Execute Principle

Safety Basis Management System

The general ORP safety management commitments and expectations are defined in Section 3.0 of this ISMSD. DOE's safety expectations for its contractors are set forth as contract requirements. DOE has identified safety requirements in rules and DOE Orders that are supported by a wide variety of associated technical standards, guides, and manuals. DOE approval of the contractor's ISMS description and oversight of its implementation are fundamental to DOE satisfying its responsibilities for ensuring safety.

ORP's graded approach ensures as hazards increase, increasing controls are implemented to prevent and mitigate activity-specific hazards. For example, ORP facilities are categorized by hazard whereby higher hazard facilities must have a more comprehensive safety analysis report.

In addition, depending on the hazards associated with a particular job, a hazards review may be used.

Responsibility for hazard analysis and development/approval of operational controls rests with the operating contractor, with periodic oversight by ORP personnel. For high-hazard nuclear facilities, ORP uses formal authorization agreements. Authorization agreements are developed in conjunction with facility startup (or restart) and DOE approval of authorization basis documents.

Authorization Basis Management

For a full description of this management system, see Section 6.1.5.

Environmental Management System

For a full description of this management system, see Section 6.1.5.

ISMS Annual Declaration Process

See Section 9.0 for the detailed ORP Annual ISMS Declaration of Readiness process. ORP declared ISMS readiness for FY 2006 and FY 2007 operations in September 2005 and October 2006, respectively. Below is the annual ORP ISMS Action Plan.

Table 3. ISMS 2007 Action Plan

Process Step	Action Description	Schedule	Action Responsibility
1.	Perform assessments of contractor safety management systems and components	Ongoing throughout each fiscal year	TFC and WTP line organizations; ORP Safety Management Program Owners
2.	Perform programmatic assessments of contractor systems	Ongoing throughout each fiscal year	Line Organizations; ESQ Assessors; ISMS Coordinator
3.	ORP sends letter to Contractors (TFC and WTPC) requesting review and update of the ISMSD and POMCs	By April 25	ISMS Coordinator
	ORP Line Managers provide POMC guidance to prime contractors	By May 31	Line Organizations
4.	Contractors submit ISMSD revisions (as applicable) and new POMCs to ORP for review	By July 31	TFC and WTPC
5.	ORP receives EM-3.2 ISMS guidance, as issued; Note: EM-3.2 may not issue ISMS guidance each fiscal year	By August 31	EM-3.2
6.	ORP completes their annual ISMS assessment of contractor ISMS programs	By August 31	Line Organizations and ISMS Coordinator
7.	Contractors complete their annual ISMS self-assessment and submit their ISMS readiness declaration to ORP	By August 31	TFC, WTPC, ASPC

Table 3. ISMS 2007 Action Plan

Process Step	Action Description	Schedule	Action Responsibility
8.	ORP line organizations submit ISMS readiness declarations to the coordinator	By September 15	Line Organizations
9.	ORP Manager receives annual ORP ISMS readiness declaration for approval	By September 27	ISMS Coordinator and ESQ Director
10.	ORP Manager submits declaration to EM-3.2	By September 29	ORP Manager
11.	All ISMS corrective actions input into CARS for tracking	By October 1	ISMS Coordinator
12.	Verify ISMS corrective action (CA) completion	Within 30 days of CA completion	Line Organizations and ISMS Coordinator

Regulatory Compliance

For a full description of this management system, see Section 6.1.5.

Fire Protection

For a full description of this management system, see Section 6.1.5.

6.1.7 Principle 7: Operations Authorization

The ORP contracts management and construction/operations authorization process requires the safety standards, facility conditions, and requirements to be fully satisfied before construction and/or operations begin. ORP provides formal construction and operations authorization to the contractor before work begins.

Attributes and Expected Outcomes (Associated Management System)

- Employees raise concerns without fear of retaliation. (ECP)
- ORP is self-critical, performs self-assessments, and solicits external feedback. (Self-Assessment)
- ORP develops and maintains formal construction and operating authorization agreements with the facility constructor and/or operator. (Construction and Operations Authorizations)
- ORP verifies and approves readiness for operations to begin. (Construction and Operations Authorization)
- Federal oversight strengthens facility safety and improves operational performance. (Assessment and Oversight, Self-Assessment)
- ORP uses a comprehensive set of reviews and assessments to oversee safe and efficient operation/construction of facilities, including self-assessments, lessons learned, employee concerns, QA reviews, operational assessments, and independent oversight. (Assessment Program)

- ORP evaluates monthly performance indicators to address performance trends and emerging issues. (Project Management)
- ORP management systems (QA, Project Controls, Integrated Assessment Program, ECP, Lessons Learned, and Independent Oversight) provide effective information/feedback for decision-making. (multiple systems)
- Senior management receives timely briefings of oversight progress and findings. (Integrated Assessment Program)
- Complete, accurate, and forthright information is provided to oversight, audit, and regulatory organizations. (Assessment Program)
- Employees are confident nuclear safety issues are prioritized, tracked, and resolved in a timely manner. (Assessment and Oversight, Issues Management)
- ORP maintains a healthy lessons learned program to share significant safety items with the Federal staff and to eliminate repeat mistakes. (Lessons Learned/Operating Experience)
- ORP welcomes input from staff on potential technical and safety concerns; employees can process these concerns through the ECP or the DPO without retaliation. (ECP, DPO)

ORP Management Systems to Execute Outcomes

- Construction and Operations Authorizations
- Employee Concerns Program
- Quality Assurance Program
- Project Controls
- Safety and Health Management System, Security and Emergency Planning
- Performance Evaluation System
- Lessons Learned/Operating Experience, Self-Assessment Program
- Engineering and Design Oversight
- Issues Management

System Policies and Procedures

- a. *ORP M 432.1, WTP Project Construction Oversight Manual*
- b. *DOE O 413.3A, Change 1, Program and Project Management for the Acquisition of Capital Assets*
- c. *ORP M 413.3.1d, River Protection Project Federal Risk Management Plan*
- d. *ORP DI 220.1, Conduct of Design Oversight*
- e. *ORP M 425.1, Startup and Restart of Tank Farm Contractor Nuclear Facilities*
- f. *DOE O 420.1B, Facility Safety*

- g. DOE-STD-3009-94, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Documented Safety Analyses*
- h. 10 CFR 830, “Nuclear Safety Management”
- i. 10 CFR 851, “Worker Safety and Health Program”
- j. Bechtel National, Inc. (BNI) Contract DE-AC27-01RL14136, <http://www.hanford.gov/orp/?page=40&parent=39>
- k. CH2M HILL Contract DE-AC27-99RL14047, <http://www.hanford.gov/orp/?page=53&parent=39>

Supplemental Management Actions to Enhance Safety Culture

- Updated the Tank Farms and WTP Risk Management Plans.
- Implemented the WTP Project Construction Oversight Manual in 2006.
- ORP oversight of the WTP Nuclear Quality and Safety Initiative (NSQI).
- Completed the ISMS Phase II Verification Review for the Advanced Technologies and Laboratories (ATL) Contract (Analytical Services Contractor Laboratory).

FY 2008 Performance Measures, Objectives, and Commitments (POMC)

Management System	Performance Measure/Commitment	Owner
Operating and Construction Agreements	ORP operating and construction agreements are reviewed annually by September 30th to ensure requirements and project information is current.	WTP Manager/ Tank Farms Manager
Engineering and Design Oversight	Update and enhance the ORP Engineering procedures by 12/31/07.	WTP Engineering Division Director
Safety and Health	Zero ORP Federal staff recordable accidents and injuries in a fiscal year.	All Managers/ Directors
Performance Evaluation System	ORP completes 90% or greater of annually planned assessments on schedule.	ESQ Manager
Lessons Learned	Distribute key lesson learned items to Federal staff within 30 days of receipt.	Lessons Learned Program
Issues Management	Complete 100% of DOE HQ actions by the committed date.	Manager/ Deputy Manager

ORP Management Systems to Execute Principle

Construction and Operations Authorizations

Operations authorization agreements and construction authorization agreements are required to confirm adequate work preparation prior to authorizing construction and operation of facilities. U.S. Department of Energy Acquisition Regulation (DEAR) 970.5204-2 (7), *DOE Management*

and Operating Contracts, requires DOE and the contractor to establish and agree on the conditions and requirements, which must be satisfied for work or operations to be initiated. The conditions and requirements are included in ORP's prime contracts and authorization documents. The formality of the review process and the level of authority for agreement are based on the hazard and complexity of the work being performed. *DOE M 425.1, Startup and Restart of Tank Farm Contractor Nuclear Facilities*, provides readiness guidance for ORP tank farm facilities.

The authorization agreement incorporates ORP's review of the contractor's proposed authorization basis for the work. Authorization basis includes aspects of facility design and operational requirements relied on by DOE to authorize operation. The analysis is documented in the final safety analysis reports (FSAR), hazard classification documents, technical safety requirements (TSR), and DOE-issued SERs.

Although specifically designed for higher-hazard facilities, ORP may elect to use authorization agreements in special situations for lower-hazard activities depending on the complexity of the work and control required.

Employee Concerns Program

The ORP ECP ensures work-related concerns are addressed promptly, objectively, and with satisfactory resolution. The ECP program plan establishes a disciplined approach process for resolving, tracking, and reporting concerns.

ORP believes investigating, understanding, and responding to employee concerns in a timely manner is a valuable tool for improving safety and productivity. Employee concerns are most efficiently resolved when the employee addresses the concern with their manager. However, when the employee cannot achieve resolution with their manager, or has a concern regarding retaliation, intimidation, or harassment, ORP expects the employee to utilize the ECP office.

The ORP ECP provides an alternative method (outside of the normal management chain of command) for employees to raise concerns. ORP will review, investigate, and take action on employee concerns in a manner which promotes confidentiality, resolution, and work practice improvements, and prevents fear of reprisal.

Quality Assurance Program

The ORP Quality Assurance Program (QAP) ensures work is performed to quality and safety requirements. Management is responsible for ensuring the requirements of the QAP are implemented and followed by employees. Individuals are responsible for the quality of their work and for doing the work in compliance with the requirements.

ORP's QAP places accountability for quality on each individual. In addition, it emphasizes the creation of an atmosphere in the workplace where the reporting and resolution of quality problems occurs at all levels of the organization.

Safety and Health Management System, Security and Emergency Planning

For a full description of these management systems, see Section 6.1.5.

Performance Evaluation System

The ORP Performance Evaluation System sets expectations for DOE to improve organizational effectiveness. Aspects of the effort include benchmarking, independent oversight, corrective action, self-assessment, lessons learned, and metrics. The system has the following purposes:

- Provide accurate technical, business, and operational performance information to ORP management and staff
- Identify early warnings which lead to recommendations, resolution of problems to achieve program objectives, and lessons learned which preclude the recurrence of negative outcomes
- Evaluate ORP conformance with established requirements
- Evaluate effectiveness of ORP oversight of systems and controls designed to protect the environment, and the health and safety of workers and the public
- Coordinate external assessments
- Maintain an effective self-assessment program
- Coordinate evaluation of potential noncompliant events and findings
- Provide information about ongoing performance improvements to the ORP Manager and Deputy Manager
- Provide the Lessons Learned/Operating Experience program or other suitable channels for information dissemination

Lessons Learned/Operating Experience, Self-Assessment Program

The ORP integrated Lessons Learned/Operating Experience program encourages operating experience feedback. The DOE Lessons Learned/Operating Experience program helps prevent the recurrence of significant adverse events/trends by sharing performance information, lessons learned, and good practices across the DOE complex. The ORP program supports development and implementation of a lessons learned infrastructure that promotes the identification and communication of lessons learned by ORP, DOE, industry, and contractors. ESQ is responsible for coordinating and distributing learned lessons and key events to the staff in a timely manner.

Management assessment is an introspective self-analysis to determine whether the management infrastructure is properly focused on achieving desired results. Direct Reports to the ORP Manager, as well as Division Directors, are to assess their own management processes and identify and correct problems that hinder their organizations from achieving their objectives. Formal management assessments are identified on the ORP annual assessment plan and performed by the responsible person. Individuals responsible for management assessments may assign staff to assemble and analyze data prior to their evaluation.

Self-assessments (also called management assessments) look at the total system or program process, including how well the management system meets specified requirements; the expectations for safely performing work; and the organizational mission, goals, and objectives. The emphasis of self-assessment is on management issues that affect performance and related

processes such as strategic planning; personnel qualification and training, staffing, and skills mix; communication; cost control; organizational interfaces; and mission objectives. The purpose of this type of assessment is to identify the management aspects of performance and make improvements.

Engineering and Design Oversight

DOE M 413.3-1, *Project Management for the Acquisition of Capital Assets*, Section 5, identifies the requirements for project design reviews as follows:

- Evaluate adequacy of design including adequacy of drawings and specifications, and assess whether they are consistent with system functions and requirements. Assess whether all safety structures, systems, and components are incorporated into the preliminary design. Review results of the preliminary design review and assess whether additional work identified in the design review has been incorporated into the Performance Baseline as appropriate.
- Assess whether "design to" functions and requirements are complete and have a sound technical basis.
- Assess the applicability of Value Management/Engineering, and whether a Value Management/Engineering analysis has been performed with results being incorporated into the baseline. Also, provide an assessment of the Value Management/Engineering process for the project.

Additionally, DOE O 414.1C, *Quality Assurance*, Section 4.b.(5)(a) states DOE will “perform work consistent with technical standards, administrative controls, and hazard controls adopted to meet regulatory or contract requirements using approved instructions, procedures, etc.”

In April 2007, ORP conducted an internal self-assessment, *Management System Self Assessment*, of its current management systems and associated procedures. The purpose of the self-assessment was to determine the adequacy and effectiveness of the ORP systems against DOE requirements and EM expectations. The assessment report is available at:

<http://www.hanford.gov/orp/uploadfiles/A-07-ESQ-ORP-001.pdf>

The self-assessment identified an observation (Observation A-07-ESQ-ORP-001-001) for improved engineering oversight and design review procedures as follows: Additional engineering, design review, and ABAR procedures are necessary to strengthen the associated management system processes for these areas. Consequently, ORP established a corrective action to resolve this observation, which is included in the POMC table for this section.

6.2 Implementation of Four Supplemental High-Reliability Principles

A high-reliability organization repeatedly accomplishes its mission safely, avoiding catastrophic events, despite significant hazards, dynamic tasks, time constraints, and complex technologies. ORP is a high-reliability organization, requiring an effective ISMS to be successful. This includes an essential set of behaviors and habits with respect to each other and towards work:

- Preoccupation with safety
- High respect and regard for expertise

- Sensitivity to operations
- Commitment to resilience
- Reluctance to simplify interpretation

DOE has established four supplemental high-reliability principles, in addition to the original seven ISMS principles, to help develop the appropriate environment for ISMS. The four supplemental principles are as follows:

6.2.1 Highly-Reliable Operational Performance

ORP achieves sustained, high levels of operational performance in safety, productivity, quality, and environmental. High reliability is achieved through open communication, deference to expertise, and a systematic approach to eliminating accidents and errors. Attributes of this principle include:

Attributes and Expected Outcomes

- Managers are in close contact with the front-line.
- Operational anomalies receive prompt attention and evaluation.
- Candid dialogue, debate, and a healthy skepticism exists and is encouraged; the messenger is not penalized for bringing forth an issue.

ORP Management Systems to Execute Outcomes

- Project Management System
- ORP FRAM
- Assessment and Oversight Program
- Management Walkthrough Program
- ISMS
- Directives Management
- Issues Management
- Lessons Learned/Operating Experience

6.2.2 Individual Attitude and Responsibility

Each ORP worker accepts personal responsibility and accountability for safe operations. Individuals demonstrate a questioning attitude by challenging assumptions and finding the facts for themselves. Attributes of this principle include:

Attributes and Expected Outcomes

- Individuals understand safety expectations and demonstrate responsibility for safety on each job.
- Workers are actively involved in planning work and identifying potential hazards.
- People promptly report errors, accidents, and incidents without fear of retaliation.

ORP Management Systems to Execute Outcomes

- ORP FRAM and ISMS
- Human Resource Management
- Workforce Management
- Employee Relations
- Training and Qualifications Programs
- Federal Technical Capability Program
- Performance Recognition Program
- Differing Professional Opinion
- Lessons Learned/Operating Experience
- Quality Assurance Program

6.2.3 Performance Assurance

Competent and independent oversight is an essential source of feedback to management. The feedback verifies expectations are being met and identifies opportunities for improvement. Attributes of this principle include:

Attributes and Expected Outcomes

- Performance assurance programs are guided by plans that ensure a base level of relevant areas are reviewed.
- Efficient redundancy in monitoring is valued.
- Organizational feedback is actively sought and valued.

ORP Management Systems to Execute Outcomes

- Project Management, ISMS
- Project Controls and Performance Measurement Baseline (including Change Management)
- Assessment and Oversight Program
- Risk Management
- Acquisition Management
- Management Walkthrough
- Financial Management
- Budget Formulation and Execution

6.2.4 Organizational Performance Improvement

ORP demonstrates excellence in performance monitoring, problem analysis, and solution implementation. The organization encourages continuous learning. Attributes of this principle include:

Attributes and Expected Outcomes

- Performance is monitored through a variety of indicators, including management walkthroughs, performance trends, benchmarking, and self-assessments.
- People are comfortable raising and discussing questions or concerns; management is not defensive when issues are raised.
- Expertise in causal analysis is applied effectively to events.

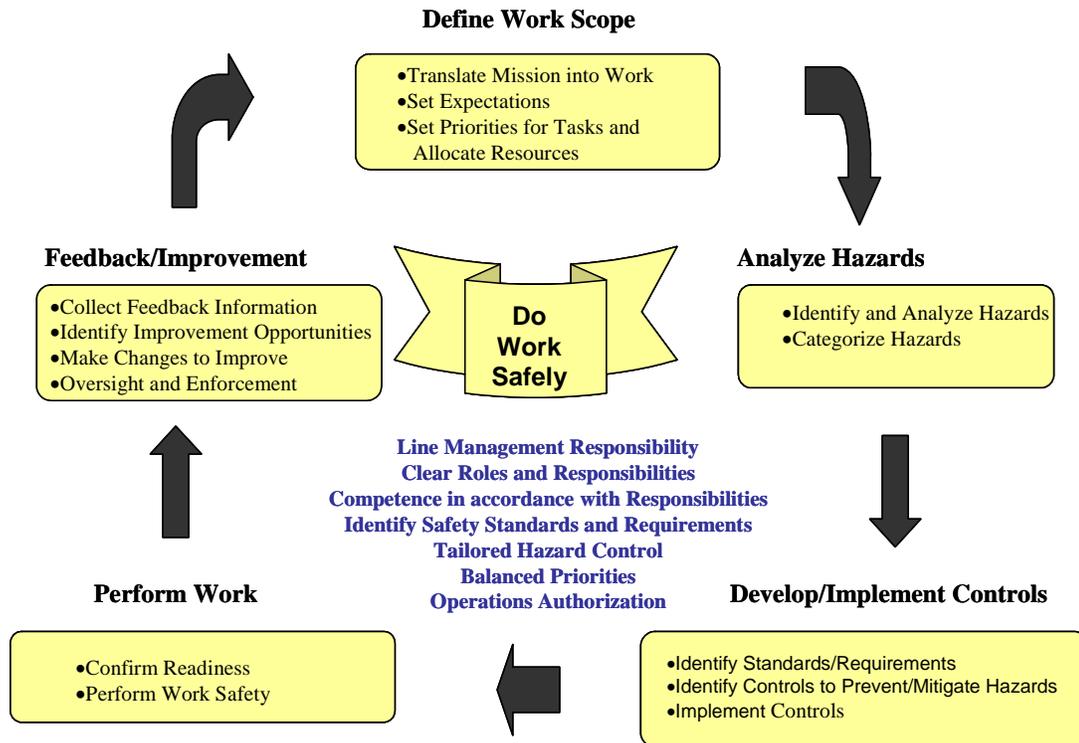
ORP Management Systems to Execute Outcomes

- Construction and Operations Authorizations
- Quality Assurance Program
- Assessment and Oversight Program
- Performance Evaluation System
- Lessons Learned Program
- Management Walkthrough
- Self-Assessment Program
- Engineering and Design Oversight

6.3 Implementation of the Five Core Functions

According to DOE P 450.4, *Safety Management System Policy*, the five core safety management functions provide the necessary structure for any work activity that could potentially affect the public, the workers, and the environment. The functions are applied as a continuous cycle with the degree of rigor appropriate to address the type of work activity and the hazards involved. The five core functions as they apply to ORP projects are shown in Figure 6, which depicts graphically how the core functions integrate with the ISMS principles for work scope definition.

Figure 6. ISMS Core Functions and Applicable Principles



ORP has integrated the 5 core functions with the 11 ISMS principles, and as such the attributes, applicable management systems, supplemental management actions, and POMCs have already been discussed. The following sections summarize the ORP management approach for each core function. The first three ISMS principles (Line Management Responsibility for Safety; Clear Roles and Responsibilities; Competence Commensurate with Responsibilities) are commonly applicable to all five core functions. The specific guiding principle(s) applicable for each function is provided in a corresponding box.

6.3.1 Core Function 1: Define Scope of Work

Strategic planning is the first step in defining work scope. DOE HQ maintains a strategic plan, [DOE/RL-2002-47, Rev. D, Performance Management Plan for the Accelerated Cleanup of the Hanford Site](#), for establishing goals and direction. The ORP strategic plan defines strategic goals, key success measures, objectives, and strategies for each ORP business line and focus area. Strategic plans are periodically updated, and changes affecting work scope are integrated as part of the comprehensive planning process.

**Applicable Guiding Principle:
Balanced Priorities**

ORP translates strategic plans into definable work scope and provides strategic and outyear planning guidance to its contractors. For effective planning, strategic development and updates are aligned with the budget formulation and execution cycle.

The TFC baseline, which the contractor develops and ORP approves, serves as the execution document for each fiscal year's work at the Hanford Site. The TFC baseline defines work scope, schedules (milestones), POMCs, and resources (estimated manpower and costs) for the fiscal year. The TFC baseline, as the execution document, is also a collection point for all fiscal year POMCs and milestones from higher-tier and program-specific planning documents.

[ORP M 413.3-1, Project Reviews and Baseline Change Control](#), also defines the formal process for changing work scope. A change control process ensures that appropriate management officials approve baseline changes exceeding defined thresholds before beginning work. The change control process also ensures that the TFC baseline is not changed unless associated with an approved document.

The WTP performance measurement baseline (PMB) consists of technical, scope, and related cost estimates as established in the project baseline. The technical requirements and objectives are used to develop the technical baseline, including work scope. The cost baseline represents estimates units and dollars required to accomplish the technical work scope. The schedule baseline provides a set of time-phased, logic-driven activities that incorporate the work scope as constrained to cost. This baseline is the starting point for any subsequent baseline change management and is modified only through a formal, documented change process.

For its baseline change control, the WTPC uses a trend program ([24590-WTP-GPP-GAB-422, Change Control Program](#)) to identify, document, and disposition changes to the WTP contract and PMB. The WTP Trend Program separates approved trends (or changes) into two general groups: (1) trends that constitute a contract change (defined as pending items) and (2) trends that do not constitute a contract change but have an impact on the PMB. ORP's baseline change is designed to manage each general trend group.

ORP representatives attend the biweekly WTP trend review meetings to maintain continual awareness of the WTP Trend Program, including the scope, rough-order-of-magnitude cost and schedule impacts, and trend basis. Attendance at the biweekly WTP trend review meetings provides early notice of forthcoming contractual changes and allows responsive mobilization for evaluating WTP contract change requests and PMB updates.

6.3.2 Core Function 2: Analysis of Hazards

Safety analysis is a documented process that includes systematic identification and assessment of hazards posed by a nuclear facility or operation. For nuclear facilities, ORP personnel review facility safety documentation, including hazards analyses, facility classifications, USQs, and structures, systems, and components classifications. ORP issues SERs documenting review of contractor safety revisions and the basis for approving authorization basis documents. ORP line organizations continuously monitor and assess contractor processes for identifying, analyzing, and categorizing facility and activity hazards. ORP line personnel oversee management of the technical baseline (as defined in the contractor project baseline plans) for all facility process and safety systems and conduct surveillances on contractor engineering organizations in support of operations. This ensures that safety documentation accurately reflects the plant/system technical basis and that required safety evaluations are performed. Test plans and test procedures are verified to ensure they accurately reflect plant configuration and to ensure that test acceptance personnel evaluate the performance of contractor engineering organizations as part of operations support. Review and approval of the safety analysis reports by ORP requires development of an SER.

Applicable Guiding Principle:
Competence

ORP uses Standards/Requirements Identification Documents (S/RID) to establish the level of hazard analysis and documentation required for all tank farm work activities. Except for nuclear facilities, responsibility for development and approval of auditable hazard analyses rests with the site management and operating contractor.

For WTP, the contract establishes the requirement to use an ISMS-based process to develop the design and construction authorization basis for the WTP. The WTPC is required to: (1) define its processes, (2) identify the hazards associated with the defined processes, (3) develop control mechanisms to mitigate the hazards, and (4) define standards to implement the control mechanisms. The contractor submits its analysis and proposed standards to ORP for approval.

6.3.3 Core Function 3: Develop and Implement Hazard Controls

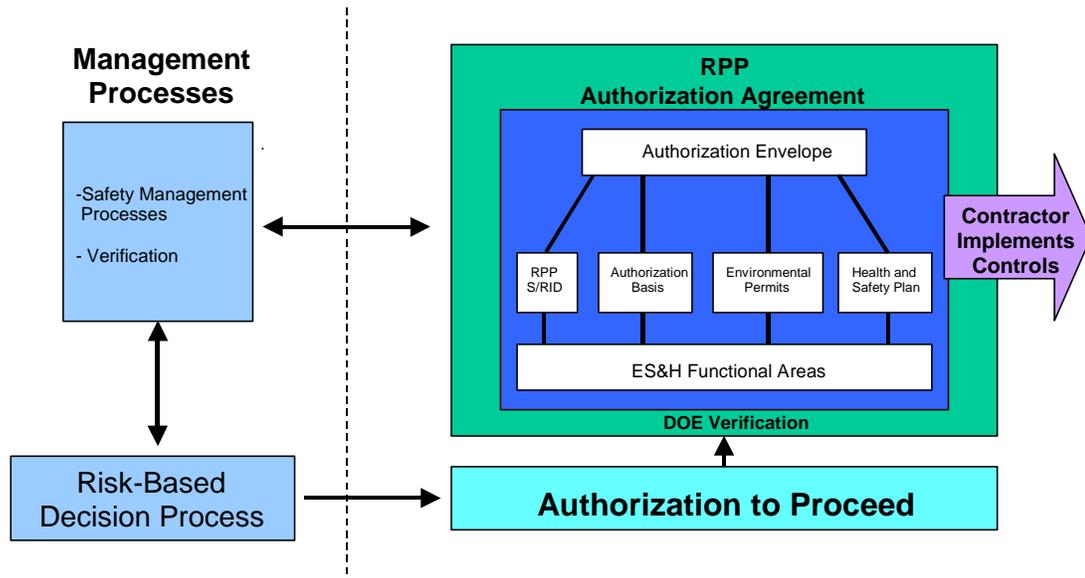
Responsibility for development and approval of operational controls derived from hazard analyses of non-nuclear facilities rests with the site management and operating contractor.

For high-hazard nuclear facilities, DOE develops the concept of authorization agreements, and incorporates the results of ORP reviews into the authorization basis.

Applicable Guiding Principle:
Identification of Safety Standards and Tailor Hazards Controls to Work

The hazard controls process is shown in Figure 7.

Figure 7. ORP Hazard Control Process



The authorization agreement contains key terms and conditions (controls and commitments) under which the contractor is authorized to perform work. Any changes to these terms and conditions require DOE approval. In many respects, an authorization agreement parallels the license issued by the U.S. Nuclear Regulatory Commission for operation of commercial nuclear facilities. Unless specifically exempted by the ORP Manager, authorization agreements are required for all ORP high-hazard activities. Authorization agreements are developed in conjunction with startup (or restart) approval by DOE, approval of authorization basis documents by DOE, or any other direction provided to the contractor that alters the scope of operations, special terms, or conditions specified by DOE.

The authorization basis (or safety basis) consists of the facility design basis and operational requirements that DOE relies on to authorize operation, and is described in documents, such as the FSAR, other safety analyses, hazard classification documents, TSR, DOE-issued SERs, and other facility-specific commitments, made to ensure compliance with DOE Orders, rules, or policies.

TSRs are important authorization basis documents that define the conditions, safe boundaries, and the management or administrative controls necessary to ensure the safe operation of a nuclear facility. TSR controls are also designed to reduce potential risk to workers and the public from uncontrolled releases of radioactive materials or from radiation exposures due to inadvertent criticality. TSRs include safety limits, operating limits, surveillance requirements, administrative controls, use and application instructions, and their bases, in support of the FSAR. The TSR constitutes a contract between DOE and the facility operating management regarding the safe operation of the facility.

USQ evaluations are important in maintaining the integrity of safety basis documents. A USQ exists if one or more of the following conditions is present: (1) the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR could be increased, (2) the possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR could be created, or (3) any margin of safety as defined in the bases of the TSR could be reduced. Inherent in an activity resulting in a USQ is the need for additional controls to be approved by ORP, necessitating a change to the facility authorization basis. ORP oversight of the TFC's USQ program ensures the authorization basis approved by DOE remains current and provides adequate level of protection to workers, the public, and the environment. For WTP, ABARs are used to keep the safety basis current.

Through assessments, ORP routinely conducts field verification of controls addressed in the contractor's authorization envelope. Verification of controls is also a routine element of the ORP facility representative (FR) integrated assessment schedule through surveillances and performance assessments.

ORP has implemented a systematic approach to managing programmatic risks; i.e., risks with respect to cost, schedule, and technical performance. This approach is dependent on the establishment of an integrated risk management process. The integrated program allows for the top-down-bottom-up flow of risk data and information. A byproduct of this process is the *River Protection Project Integrated Risk Management Process Manual* (ORP M 413.3-1c) and *River Protection Project Federal Risk Management Plan* (ORP M 413-1d). The overall objective of risk management and risk assessment is to understand the risks confronting tank farms and WTP projects, and managing the risks with effective decision-making outcomes. The ORP risk assessment process includes:

- Assessing project risks using a structured process, and developing strategies to manage risks throughout each acquisition phase
- Identifying early and intensively-managed design parameters that critically affect cost, capability, or readiness
- Using technology demonstrations/modeling/simulation and aggressive prototyping to reduce risks
- Using test and evaluation as a means of quantifying the results of the risk handling process
- Including industry and user participation in risk management
- Using developmental test and evaluation when appropriate
- Establishing a series of "risk assessment reviews" to evaluate the effectiveness of risk handling against clearly defined success criteria

6.3.4 Core Function 4: Perform Work Within Controls

ORP's mission is to provide leadership, direction, and oversight to ensure site programs, operations, and resources are managed in an open, safe, environmentally sound, and cost-effective manner. In general, ORP's safety oversight of the contractor involves maintaining a continuous presence through the Facility Representative and Management Walkthrough Programs. Project performance evaluation is accomplished through the Integrated Assessment Program and monthly project reviews.

Applicable Guiding Principles:
Tailor Hazards Controls to Work and Operations Authorization

In accordance with [ORP M 420.2c, *Facility Representative Program*](#), FRs spend most of their time observing and assessing contractor operations via operational awareness and performance-based assessments. ORP FRs are formally qualified as part of the ORP training program, subject to continuing education requirements, and must qualify on a facility-specific basis. Additionally, Security and Safety Oversight and Safety Management Program oversight personnel perform safety program and vital safety system evaluations.

[DOE P 450.5, *Line Environment, Safety, and Health Oversight*](#), establishes DOE field offices to also maintain operational awareness through planned assessments. ORP's institutionalized integrated assessment process meets the requirements of DOE P 450.5. The essential elements of the integrated assessment program are:

- Perform annual assessments of all key systems and programs
- Strategically plan and schedule assessments to ensure the appropriate areas are being evaluated
- Schedule the assessments (P3 schedule) formally and before the fiscal year begins
- Status progress against the schedule
- Measure progress on current assessments against prior assessments
- Document and track all issues and findings
- Coordinate corrective actions with the contractor and track to satisfactory closure
- Perform self-assessments on DOE systems, processes, and programs; determine the effectiveness of the DOE systems and incorporate corrective actions where required
- Independent oversight processes are performed by DOE organizations that do not have line management responsibility for the activity; ORP is open to suggestions and critiques from external organizations that can help us improve our operations

[ORP M 220.1, *Integrated Assessment Plan*](#), describes the assessment processes for ORP technical staff to monitor contractor performance to ascertain facility and program status, determine whether implementation of requirements is effective, and evaluate the effectiveness of the contractor's self-assessment program. A technical assessment is defined as an evaluation of contractor performance based on awareness of contractor work activities, data analysis, and comparison to the results of

the contractor's self-assessment. ORP's consolidated annual assessment plan categorizes assessments by functional area/system, program, organization, and assessment type (required, prudent management, or reactive). ORP technical assessments are performance based, focusing heavily on results and effectiveness in addition to ascertaining compliance with requirements.

ORP is also responsible for performing reviews and assessments in support of contractor readiness assessments and operational readiness reviews. [ORP M 425.1, *Startup and Restart of Tank Farm Contractor Nuclear Facilities*](#), documents the process for ORP review and approval of nuclear facility startups and restarts.

Readiness to proceed falls under [DOE O 425.1C, *Startup and Restart of Nuclear Facilities*](#). Specifically, this directive is used in performing ORP's role in operational readiness reviews and readiness assessments. In practice, the approach has been extended to several ORP management assessments (e.g., DOE/RL-97-72, *Determination of Readiness to Implement Tank Waste Remediation System Basis for Interim Operations*) where a high-profile activity is neither a startup nor a restart, but the grading criteria justify a regimented determination of readiness.

The ORP Manager has issued a stop work policy for the ORP facilities on the Hanford Site. The policy places responsibility and authority on every DOE employee to stop work immediately, without fear of reprisal, when they are convinced a situation exists that places them, their coworker(s), or the environment in danger. "Stop Work" is defined as stopping the specific task or activity that poses danger to human health and/or the environment.

6.3.5 Core Function 5: Provide Feedback and Continuous Improvement

Ten primary mechanisms motivate the ORP approach to project evaluation and stimulating continuous improvement:

1. Management culture which encourages an inquisitive attitude and insistence for improving business practices
2. Proactive Facility Representative Program
3. Disciplined approach to planning, scheduling, and performing the appropriate assessments each year
4. Monthly project management reviews
5. Use of a formal issues management and corrective action tracking system to track progress
6. Integrated lessons learned program
7. Alternative and safe channels for employees to voice a concern or differing opinion on a project activity
8. Ongoing quality assurance (QA) reviews
9. Price-Anderson Amendments Act self-identification of issues and violations
10. Semi-annual contract performance reviews

Applicable Guiding Principle:
Operations Authorization

These mechanisms exist to obtain and communicate feedback on ORP and contractor activities. ORP FRs observe facility operations and provide real-time informal and formally documented

feedback related to facility operations and program implementation. Facility technical specialists and site technical specialists conduct technical assessments of activities under their cognizance; assessments serve as a formally documented source of feedback to the contractor. Technical assessments include evaluation of any applicable contractor self-assessments. Results of this evaluation are documented in the assessment and provided to the ORP program manager overseeing the contractor self-assessment program. Special ORP assessments, including readiness assessments, operational readiness reviews, and authorization basis document reviews also evaluate contractor performance and are sources of feedback information. Management walkthroughs provide another perspective on facility operations and program implementation.

Other activities, ranging from surveillances and document reviews to task team participation, may serve as feedback sources. Regular monthly meetings with contractor counterparts are also important. Twice yearly, key performance feedback is provided by ORP as part of the formal contractor award fee and performance evaluation process. The amount of award fee the contractor earns at the end of a rating period is determined after due consideration of performance and feedback for the period. Contractors are encouraged to self-identify and report problems, which may reduce fines and penalties in certain areas if they do so (e.g., Price-Anderson Amendments Act activities).

Effective and timely feedback is critical to identification of improvement opportunities. In addition to the ORP feedback mechanisms discussed above, the DOE HQ Lessons Learned/ Operating Experience program (located at <http://hss.energy.gov/csa/analysis/II/>) sorts and screens lessons learned pertaining to the operation of ORP facilities, as well as other sites in the DOE complex. ORP line and program offices continually look for ways to improve contractor and DOE activities as part of the daily conduct of business. ORP personnel observe and participate in contractor critiques. Technical assessments and other evaluations of the contractor usually reveal opportunities for improvements, and committees that cut across organizational lines help disseminate information.

Continuous improvement requires action in areas where feedback has been provided and opportunities for improvement have been identified. Specific direction to the contractor is given in accordance with contract provisions. Management direction and/or a change in procedure is used to effect change within ORP. Changes made in response to an outside review are usually logged and tracked to closure, with a specific organization assigned the responsibility.

In addition to the elements discussed under Core Function 4, [DOE P 450.5](#) also defines DOE field office oversight responsibility to include reviewing performance against formally established Environment, Safety, and Health POMCs. In accomplishing ORP's oversight function, cognizant ORP staff review contractor performance against formally established Environment, Safety, and Health POMCs and criteria set forth in procedures and guidance for specific programs and activities, such as emergency drill/exercise evaluations, oversight of contractor training and qualification program activities, fire protection, radiation protection, environmental protection, and natural phenomena hazards mitigation. ORP also uses information on reportable events, which is documented and tracked in the Occurrence Reporting and Processing System (ORPS) to identify trends and to assess corrective action effectiveness.

The ORP maintains an Employee Concerns Program (ECP) (ECP program plan and procedures) whereby employees and contractors who encounter concerns or allegations regarding safety issues, management, the environment, fraud, waste, abuse, work processes, acts of reprisal, intimidation, or harassment in the workplace have a safe and confidential channel to communicate their concerns.

The ECP ensures all ORP employee concern items receive consistent attention, timely investigation, prompt resolution and closure to the extent permitted by law; protects all records, activities, and deliberations acquired through the ORP ECP actions; and handles all cases with the utmost discretion.

Methods to obtain openness objective include:

- Ensure all ORP employees and ORP contractor employees are aware of the ECP, and have readily available access to ECP personnel
- Maintain a 24-hour employee concerns hotline
- Assign ORP resources to coordinate and investigate employee concerns
- Establish a neutral, private, and easily accessible office for employee concern discussions
- Ensure all employee concerns are handled discretely and with complete confidentiality when requested by the concerned individual and allowed by law
- Track each employee concern individually until closure is achieved
- Report status of employee concerns to senior management monthly

ORP believes investigating, understanding, and responding to employee concerns provides a valuable tool to improve safety, the work environment, and productivity at the Hanford Site. Employee concerns are most efficiently resolved when the employee resolves its concerns at the local level with its employer. When the employee cannot achieve resolution with its employer or has a concern regarding retaliation, intimidation, or harassment, the ORP expects the employee to come forward to its ECP office.

7.0 Integration of Environmental Management System and Quality Assurance into Integrated Safety Management

DOE O 450.1 establishes EMS requirements for Federal and contractor components. Contractor components are implemented through S/RIDS. Federal EMS requirements are implemented through integration into the Federal ISMS description. The correlation of the EMS and QA components to the ISMS principles and core functions is shown in Table 4.

Table 4. Correlation of EMS and QA to ISM

ISMS Guiding Principles	Supplemental High-Reliability Principles	ISM Core Functions	Quality Assurance Criterion	EMS Objectives
1. Line Management Responsibility	1. Highly-Reliable Operational Performance	All Five Core Functions	<ul style="list-style-type: none"> Quality Assurance Program 	<ul style="list-style-type: none"> Policy, Planning, Implementation and Operation
2. Clear Roles and Responsibilities	2. Individual Attitude and Responsibility		<ul style="list-style-type: none"> Personnel Training and Qualification 	
3. Competence to perform Responsibilities				
4. Balanced Priorities	3. Performance Assurance	1. Define Scope of Work	<ul style="list-style-type: none"> Work Processes Documents and Records Design Procurement 	<ul style="list-style-type: none"> Permitting
		2. Identify and Analyze Hazards		<ul style="list-style-type: none"> Public Health and Environmental Protection
5. Identification of Safety Standards		3. Develop and Implement Hazard Controls		<ul style="list-style-type: none"> Pollution Prevention
6. Tailor Hazard Controls to Work		4. Perform Work Within Controls		<ul style="list-style-type: none"> Compliance
7. Operations Authorization	4. Organizational Performance Improvement	5. Feedback and Continuous Improvement	<ul style="list-style-type: none"> Quality Improvement Inspection and Acceptance Management Assessment Independent Assessment 	

7.1 Environmental Management System

ORP protects and is a good steward of the environment, both on and off the Hanford Site. To implement sound stewardship practices which protect the environment, ORP enforces the responsibilities and requirements of [DOE O 450.1](#) and Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management,” for itself and its contractors. The EMS is implemented to ensure environmental protection actions and measures are integrated into all work planning and performance. This is accomplished effectively by integrating environmental protection requirements into ISMS.

EMS is part of ORP’s overall ISMS approach for achieving workplace safety and environmental protection. EMS provides a systematic management process for identifying and addressing environmental consequences of an ORP action. Processes within the EMS encompass a continuous cycle of planning, implementing, and evaluating to ensure the safety of the workers and public and protection of the environment.

ORP ensures its ISMS includes an EMS that:

- Provides for systematic planning, integrated execution, and evaluation of public health and environmental protection, pollution prevention, and compliance with environmental protection requirements
- Includes policies, procedures, and training to identify activities with significant environmental impacts, to mitigate impacts, assess performance, and implement corrective actions
- Includes measurable goals, objectives, and targets that are reviewed annually and updated as needed
- Monitors progress toward meeting the DOE Order requirements and make such information available annually to DOE HQ

Programmatic components of EMS include:

- Permit Management
- Pollution Prevention
- Environmental Compliance
- Environmental Oversight
- National Environmental Policy Administration (NEPA) Analysis
- Radiation Protection and Radioactive Waste Management
- Watershed Management
- Cultural Resource Management

Through the implementation of EMS, ORP ensures environmental management considerations are fundamental and integral components of the organization, ISMS, and contractor management. The integration of EMS into ISMS also ensures that the requirements from [DOE O 450.1](#), [Environmental Protection Program](#), requirements and Executive Order 13423 are met. ORP reviews and evaluates prime contractor implementation of EMS into ISMS as a component of the Federal assessment of contractor programs. [DOE O 450.1](#), Attachment 2, sets forth the

contractor requirements document which apply to contractors responsible for management and operation of the DOE-owned facilities.

A memorandum of agreement (MOA) between ORP and RL describes the responsibilities for environmental policy and strategic development, regulatory permitting actions, regulatory negotiation, and regulatory enforcement actions. The MOA ensures consistency and coordination between ORP and RL on all environmental issues.

7.2 Quality Assurance Program

ORP is committed to quality of all mission results and the elimination of errors. The QAPD (ORP M 414.1) is applicable to everyone in the organization. The QAPD describes the method by which QA is implemented into ISMS and the overall work processes.

ORP is committed to achieving quality in accordance with the “Quality Assurance Rule” (10 CFR 830, Subpart A) and DOE O 414.1C, *Quality Assurance*, by having a comprehensive QAP in place. The QAP identifies those requirements and actions which are implemented to achieve this result.

ORP's QAP places accountability for quality on each person working on the RPP. In addition, it emphasizes the creation of an environment for resolving quality problems rapidly and an attitude of constant improvement. ORP has 10 QA criteria:

1. Establish an organizational structure, functional responsibilities, levels of authority, and interfaces for management, performance, and assessment of work. Establish management systems for planning work and resource allocation.
2. Train and qualify personnel to be capable of performing assigned work.
3. Establish and implement processes to detect and prevent quality problems. Identify the causes of problems and include prevention of recurrence as a part of corrective action planning.
4. Prepare, review, approve, issue, use, and revise documents to prescribe processes, specify requirements, or establish design. Specify, prepare, review, approve, and maintain records.
5. Perform work consistent with technical standards, administrative controls, and hazard controls adopted to meet regulatory or contract requirements using approved instructions and procedures.
6. Design items and processes using sound engineering/scientific principles and appropriate standards. Verify/validate work before approval and implementation of the design.
7. Procure items and services which meet established requirements and perform as specified. Evaluate and select prospective suppliers on the basis of specified criteria.
8. Inspect and test specified items, services, and processes using established acceptance and performance criteria.
9. Managers assess their management processes to identify and correct problems which hinder the organization from achieving its objectives.
10. Plan and conduct independent assessments to measure item and service quality and the adequacy of work performance and to promote improvement.

7.3 Status of Integration

ORP continues implementation of EMS to DOE O 450.1, *Environmental Protection Program*, requirements. Pursuant to DOE O 450.1 and DOE management assessment, ORP approved CH2M HILL Hanford Group, Inc.'s EMS implementation into the ISMS. Beginning in 2007, ORP's annual assessment of CH2M HILL's ISMS will include an EMS evaluation.

Hanford's Cultural and Historic Resources Program is designed to ensure cultural and historical resources entrusted to ORP are managed and protected with vision, leadership, care, and responsibility. Project activities focus on preservation through compliance and protection via consultation with state and federal regulators, Tribes, and the public; cooperative management with Tribes; public involvement and education; and Site protection. The Hanford Cultural and Historical Resources Program provides assurance that ORP integrates cultural and historical resource management into their project planning process (Table 5).

Table 5. EMS, QA Integration into Integrated Safety Management

Management System	Implementing Actions	Impact Project
ISMS	<ul style="list-style-type: none"> ISMS, EMS, and QA subject matter experts integrated within the ESQ organization 	<ul style="list-style-type: none"> Improved planning and ORP management accountability
EMS	<ul style="list-style-type: none"> Development of Management Plan (in progress) Implementation of Pollution Prevention POMCs 	<ul style="list-style-type: none"> Improved permit planning, Pollution Prevention awareness and regulatory compliance
QAP	<ul style="list-style-type: none"> EM-60 conducts WTP Comprehensive QA Assessment (complete) 	<ul style="list-style-type: none"> Recommended increased QA staff for ORP
	<ul style="list-style-type: none"> DOE HQ and ORP to determine if Office of Civilian Radioactive Waste Management (OCRWM) QA requirements should be incorporated into the ORP QAP – by 9/30/07 	<ul style="list-style-type: none"> Improved integration of EM and OCRWM QA requirements
Project Planning	<ul style="list-style-type: none"> Internal, customized project management training 	<ul style="list-style-type: none"> Enhanced work planning Improved review of contractor baseline plans Improved budget requests

8.0 Integrated Safety Management System Description Maintenance and Continuous Improvement

The ESQ Office maintains the ISMSD for ORP. The ISMSD is reviewed annually and revised to incorporate appropriate changes. Changes may result from reviews, incidents, self-assessments, performance measures, new regulations, program enhancements, or revised DOE directives. The ESQ Director may make minor revisions (e.g., clarifications, organizational updates, etc.)

without further review or approvals. Major revisions will be reviewed by ORP senior management and approved by the ORP Manager. Annual revisions are transmitted to EM for information.

ORP's objective is to continually improve its management and safety systems to help ensure complete protection of people and the environment as well as successful project completion. Key to the continual improvement approach is the establishment of annual challenging program/process performance measures for ORP and its contractors (see Section 4.0). The ORP POMCs are reviewed quarterly with the ORP Manager, with corrective actions assigned as necessary.

8.1 Annual Oversight, Self-Assessment and Effectiveness Reviews

ORP has an effective oversight program for evaluating ORP and ORP contractors' implementation of ISMS. ORP senior managers develop and the ORP Manager approves an annual integrated assessment schedule. Each year, the ORP integrated assessment schedule is developed based on: (1) past performance; (2) DOE Order requirements; (3) effectiveness of corrective actions; (4) recurring events; (5) desired self-improvement; and (6) responses to past events. The ORP annual assessment schedule is a living schedule that is reviewed and revised monthly to consider for-cause assessments that are prompted by current performance and unplanned events.

ORP systematically implemented [DOE O 226.1, *Implementation of Department of Energy Oversight Policy*](#), in 2006. As part of the implementation process, ORP developed and issued [ORP M 226.1, *Assurance System Description*](#), describing all facets of ORP line management oversight of both contractor and ORP activities. ORP M 226.1 addresses the manner in which ORP conducts the following:

- Assessment scheduling
- Conduct of independent assessments
- Conduct of management assessments
- Role of FRs and acceptance inspectors
- Conduct of management operational awareness walkthrough surveillances
- Technical oversight of safety systems, structures and components
- Technical oversight of safety management programs
- Conduct of program and project oversight
- Development and use of POMCs
- Review and acceptance of contractor safety basis documents
- Conduct of startup readiness reviews
- Acquisition and use of information from worker feedback and employee concerns
- Implementation of the Lessons Learned/Operating Experience
- Issues management
- Oversight of emergency management
- Oversight of safeguards and security, including cyber security

As stated in [ORP M 226.1](#) and other ORP procedures, assessments focus on performance and effectiveness rather than simple compliance with requirements. The ORP Integrated Assessment Program strives for high-quality reviews with the flexibility to meet both base requirements and

emerging needs. The Integrated Assessment Program fulfills an important part of the fifth ISMS core function, “Feedback and Continuous Improvement.”

In addition to conducting ISMS-related assessments, FRs maintain a continuous presence at the Tank Farms and the WTP, evaluating contractor performance. FR activities include conducting field observations, monitoring and inspecting contractor work activities, verifying adequate completion of committed corrective actions, and performing safety and operational event investigations. In addition to FR oversight, certified construction acceptance inspectors evaluate WTP construction activities, including welding, piping, structural, civil, and electrical installation activities daily.

Self-assessments are vital elements of an effective ISMS and were identified as an area for continuous improvement in ORP’s FY 2007 declaration. Through June 2007, ORP performed 24 key self-assessments that evaluated the effectiveness of selected aspects of our safety and quality performance. ORP is scheduled to complete 13 additional self-assessments in the fourth quarter. This represents a 10% increase over the self-assessments performed in FY 2006.

External assessments are yet another important element of an effective ISMS. During FY 2007, 27 external assessments of ORP were scheduled on selected aspects of ORP’s safety and program performance. To date, 17 external assessments are complete.

9.0 ORP Annual Declaration of Readiness Process

The ORP ISMS provides a formal, organized process for planning, performing, assessing, and improving the safe conduct of work at the Hanford Site. The ESQ Director is responsible for coordination of the annual declaration. The ORP ISMS declaration of readiness is approved by the ORP Manager and submitted to the Assistant Secretary for EM by September 30 each year. The Assistant Secretary for EM requires field offices to provide assurance the ISMS is maintained and functioning in an effective manner. Assurance is documented by submittal of the annual declaration of readiness. This declaration states the project’s status in implementing ISMS, and the effectiveness of the program.

The procedure for coordination of the ORP declaration of readiness is ISMS Readiness Declaration Process Desk Instruction 3.1, maintained at the following:

<http://apweb04.rl.gov/doi/orp/docs/94/docs/DI-3-1.pdf>

ORP reviews and approves its ISMS in accordance with [DEAR 48 CFR 970.5223-1\(e\)](#) and the FRAM. DEAR 48 CFR 970.5223, “Integration of environment, safety, and health into work planning and execution,” requires DOE and its contractors to continually maintain the integrity of the ISMS. ORP also requires its contractors to review and update annually its safety performance objectives, performance measures, and corrective action commitments with DOE program guidance.

Appendix A. Definition of Guiding Principles for Integrated Safety Management

The Integrated Safety Management System principles (7 original plus 4 supplemental high-reliability organization principles) are the fundamental policies guiding DOE and contractor actions. ORP implementation of each guiding principle is discussed in Section 6.0.

1. **Line Management Responsibility for Safety.** An effective safety management system must ensure that line management is directly responsible for the protection of the public, the workers, and the environment.
2. **Clear Roles and Responsibilities.** An effective safety management system must ensure that clear and unambiguous lines of authority and responsibility for safety are established and maintained at all organizational levels within the DOE and its contractors.
3. **Competence Commensurate with Responsibilities.** An effective safety management system must ensure that personnel possess the experience, knowledge, skill, and abilities necessary to discharge their responsibilities.
4. **Balanced Priorities.** An effective safety management system requires that resources be appropriately allocated to address safety, programmatic, and operational considerations. Protecting the public, workers, and the environment shall be a priority when work activities are planned and performed.
5. **Identification of Safety Standards and Requirements.** An effective safety management system requires that before work is performed, associated hazards are evaluated, and safety standards and requirements are established. Safety standards and requirements should provide adequate assurance that if they are properly implemented, the public, workers, and environment will be protected from adverse consequences.
6. **Hazard Controls Tailored to Work Being Performed.** An effective safety management system requires that administrative and engineering controls designed to prevent and mitigate hazards be tailored to the work being performed and associated hazards.
7. **Operations Authorization.** An effective safety management system requires that the conditions and requirements that must be satisfied for operations to begin and continue be clearly established and agreed upon.
8. **Highly-Reliable Operational Performance.** ORP achieves sustained, high levels of operational performance in safety, productivity, quality, and environmental. High-reliability is achieved through open communication, deference to expertise, and a systematic approach to eliminating accidents and errors.
9. **Individual Attitude and Responsibility.** Each ORP worker accepts personal responsibility and accountability for safe operations. Individuals demonstrate a questioning attitude by challenging assumptions and finding the facts for themselves.
10. **Performance Assurance.** Competent and independent oversight is an essential source of feedback to management. The feedback verifies expectations are being met and identifies opportunities for improvement.
11. **Organizational Performance Improvement.** ORP demonstrates excellence in performance monitoring, problem analysis, and solution implementation. The organization encourages continuous learning.

Definition of Core Functions

The five core safety management functions provide the structure for integrating safety management with any work activity that could potentially affect the public, the workers, or the environment. The functions are applied as a continuous cycle with the degree of rigor appropriate to address the type of work activity and hazards involved. ORP's implementation of the core functions is discussed in Section 6.0.

1. **Define Scope of Work.** Missions are translated into work, expectations are set, tasks are identified and prioritized, and resources are allocated.
2. **Analyze Hazards.** Hazards associated with work are identified, analyzed, and categorized.
3. **Develop and Implement Hazard Controls.** Applicable standards and requirements are identified and agreed upon, controls to prevent or mitigate hazards are identified, the safety envelope is established, and controls are implemented.
4. **Perform Work Within Controls.** Readiness is confirmed and work is performed safely.
5. **Provide Feedback and Continuous Improvement.** Feedback information on the adequacy of controls is gathered, opportunities for improving the definition and planning of work are identified and implemented, line and independent oversight is conducted, and, if necessary, regulatory and enforcement actions occur.

Appendix B1. U.S. Department of Energy (DOE), Office of River Protection (ORP) Safety Performance Measures, Objectives, and Commitments (POMC) for Fiscal Year 2007

The following provides the status of ORP's FY 2007 POMCs as of July 2007; items highlighted in orange indicate less than full compliance.

ORP FY 2007 Safety Performance Measures

Management System	Objective	Performance Measure/Commitment	Status
Safety and Health	Safety is the dominant characteristic and value of the ORP. Safety comes first and is valued above production, budget, and schedule. Safety overrides every other priority.	<ul style="list-style-type: none"> Zero ORP Federal staff recordable accidents and injuries in a fiscal year (All/Taylor) 	No accidents to date
Security		<ul style="list-style-type: none"> Zero security infractions for ORP Federal staff in a fiscal year (Royack) 	One badge infraction
Project Management System	Implement effective management systems to ensure worker/ public/environment protection; effective utilization and control of project resources; and quality of work results.	<ul style="list-style-type: none"> Renegotiate applicable Tri-Party Agreement milestones by 9/30/07 (Line) 	On track
		<ul style="list-style-type: none"> Corrective actions are reviewed monthly with the contractor for any cost or schedule variance which is greater than a negative 10% (Eschenberg and Noyes) 	WTP and TFP variance reviews on track
		<ul style="list-style-type: none"> ORP conducts bi-monthly all-employees meeting with an emphasis on safety (ORP Manager) 	Ahead of plan
		<ul style="list-style-type: none"> 1 of the 2 remaining ORP senior managers attend the DOE Nuclear Executive Leadership Training by 9/30/07 (ORP Manager's Office) 	On track; WTP manager on schedule for August 2007

ORP FY 2007 Safety Performance Measures

Management System	Objective	Performance Measure/Commitment	Status
Assessment and Oversight Program	Ensure contractor assurance systems and DOE oversight programs are comprehensive and integrated for all aspects of operations essential to mission success.	<ul style="list-style-type: none"> Assessment and Oversight Schedule is issued annually by 9/30 (Taylor) 	Complete
		<ul style="list-style-type: none"> ORP completes 90% or greater of annually planned assessments (Taylor) 	On track; FYTD 91%
		<ul style="list-style-type: none"> Increase ORP self-assessments by 10% in FY 2007 over previous year (Taylor) 	Achieved
		<ul style="list-style-type: none"> Complete ORP M 226.1, Assurance System Description self and contractor assessments by 9/30/07 (Taylor) 	Deferred to FY 2008
Management Walkthrough Program		<ul style="list-style-type: none"> ORP line managers spend at least 100 hours individually in the field each year (ORP Manager) 	Not achieving 100 hours; monthly average 30.2 hr
ORP FRAM	Ensure clear and unambiguous lines of authority and responsibility for safety.	<ul style="list-style-type: none"> ORP FRAM is updated annually by 05/30 and submitted to EM-1 (Taylor) 	Complete
Human Resource Management/Employee Training and Development	Ensure strategic and effective alignment of ORP human capital with the mission, project goals, and organizational objectives.	<ul style="list-style-type: none"> Individual development plans (IDP), individual performance plans (IPP), and Employee Job Task Analyses (EJTA) are reviewed and approved by 10/31/06 90% of employees complete IDP commitments as negotiated with supervisor (All/Fetto) 	IPPs 100% complete; IDPs 85% complete; EJTA 98% complete
Workforce Management		<ul style="list-style-type: none"> ORP Human Capital Management Plan is updated annually by 09/30 (Olinger) 	On track

ORP FY 2007 Safety Performance Measures

Management System	Objective	Performance Measure/Commitment	Status
Qualifications Program Plan	Improve ORP workforce development, performance and technical effectiveness through a disciplined and well-planned training and qualification requirements program.	<ul style="list-style-type: none"> Issue the updated Safety Oversight (SO) Qualifications Program Plan by 10/31/06 (Scott) 	Complete 4/30/07
		<ul style="list-style-type: none"> 14 site safety officers (SSO) qualified by 09/30/07 (Bryson) 	5 TFP and 2 WTP staff are qualified thru 6/07
<ul style="list-style-type: none"> ORP TQP is accredited to the Institute for Nuclear Power Operations (INPO) standards by 09/07 (Bryson) 		Office of Health, Safety and Security not able to support in FY 2007	
Federal Technical Capability Program			
Project Controls and Baseline Management	Ensure ORP implements sound project management principles and systems to successfully execute all projects and programs safely within budgeted cost, baseline schedule, and with quality results.	<ul style="list-style-type: none"> ORP dispositions Level 1 contractor change requests to DOE HQ within 30 days of receipt (Noyes, Eschenberg) 	On track
Budget Request Process		<ul style="list-style-type: none"> Submit the budget request to EM-1 per the annual guidance schedule (Copeland) 	On track
Performance and Recognition Program	Establish viable requirements and responsibilities for employee performance appraisals, performance-related awards, and other forms of employee recognition.	<ul style="list-style-type: none"> Employees sign new Performance System Performance Plans by 10/31/06 (Fetto) (ESQ Complete) 	Complete

ORP FY 2007 Safety Performance Measures

Management System	Objective	Performance Measure/Commitment	Status
Lessons Learned	Implement continuous operating experience feedback to improve results and prevent recurring adverse events.	<ul style="list-style-type: none"> Distribute key lesson learned items to Federal staff within 30 days of receipt (Taylor) 	On track
Corrective Actions		<ul style="list-style-type: none"> Complete 100% of DOE HQ actions by the committed date (All) 	On track (no overdue actions)
Quality Assurance Program	Ensure all performance results meet or exceed DOE requirements.	<ul style="list-style-type: none"> Self-assess the ORP QAP, and the Tank Closure and Waste Management Environmental Impact Statement (TC & WM EIS) QAP by January 31, 2007 (Taylor) 	ORP QAP self-assessment scheduled for August 2007; EIS QAP not ready for review
Acquisition Management	Establish acquisition principles and processes to ensure user needs translate into reliable and sustainable facilities, systems, and assets to complete the required mission.	<ul style="list-style-type: none"> Meet, or exceed, 90% of applicable DOE HQ balanced scorecard targets – FY 2006 (Barrett) 	Complete 93%
Asset Management		<ul style="list-style-type: none"> Less than 5% of assets (value) assigned to Federal employees are lost, damaged or stolen each fiscal year (Copeland) 	On track – no lost or stolen assets FYTD
Safety Basis and Authorization Basis Management	Ensure all work is executed consistent with safety, design, and any other requirements applicable to the affected facility.	<ul style="list-style-type: none"> At least 76% of the WTP ABAR reviews are completed on schedule per the WTP Work Plan commitments (Griffith); on track to achieve 90% or greater by 9/30/07 	12 completed on schedule thru Jun 07
		<ul style="list-style-type: none"> Tank Farm documented safety analysis (DSA) changes are processed and closed within 30 days after receipt (Bryson) 	100%

ORP FY 2007 Safety Performance Measures

Management System	Objective	Performance Measure/Commitment	Status
ISMS	Effectively plan, oversee, and improve the safe conduct of work as required by DOE P 450.4 .	<ul style="list-style-type: none"> Review and approve contractor ISMS descriptions and proposed performance measures annually by 9/30/07 (Taylor) 	On track
		<ul style="list-style-type: none"> ATL ISM Readiness Evaluation is completed by 11/30/06 (Smith) 	Completed 10/06
		<ul style="list-style-type: none"> Annually self-assess the ORP ISMS and incorporate corrective actions by 9/30/07 (Taylor) 	On track
		<ul style="list-style-type: none"> Update and issue the ORP ISMS Description by September 30, 2007 (Taylor) 	Ahead of schedule
ISMS Annual Declaration Process		<ul style="list-style-type: none"> The ORP ISMS Annual Declaration Readiness Report is issued by 9/30/07 (Taylor) 	On track
		<ul style="list-style-type: none"> Complete Oversight Performance Improvement Team Recommendations to senior management by 10/30/06 (Carier) 	Complete 03/07
		<ul style="list-style-type: none"> Complete corrective actions to resolve the HQ 2006 ISMS Assessment Report Observations; Complete by 9/30/07 (Taylor) 	On track
Employee Concern Program (ECP)	Ensure work-related concerns are addressed promptly, objectively, and with satisfactory resolution.	<ul style="list-style-type: none"> Perform an annual assessment of the ORP ECP by 12/31/06 and evaluate timeliness of disposition of employee concerns and differing professional opinions (Carier) 	Complete

ORP FY 2007 Safety Performance Measures

Management System	Objective	Performance Measure/Commitment	Status
Continuous Improvement	Continuously improve ORP Federal management systems and processes.	<ul style="list-style-type: none"> 40% of Federal staff complete Human Performance Improvement (HPI) 32-hour course by 9/30/07 (Eschenberg and Noyes) 	<p>On track; 32% complete thru June 2007</p>
		<ul style="list-style-type: none"> All ORP Federal Employees attend 8-hour HPI training by 3/01/07 (Olinger) 	<p>96% attendance thru June 2007</p>
Safety and Health	Continuous improvement to the ORP safety and health program. Implement 10 CFR 851 , “ Worker Safety and Health Program ,” by May 25, 2007.	<ul style="list-style-type: none"> Complete review of contractors’ worker safety and health plan within 6 weeks following receipt from contractor (Taylor) 	<p>Complete 05/25/07</p>

Appendix B2. U.S. Department of Energy (DOE), Office of River Protection (ORP) Safety Performance Measures, Objectives, and Commitments (POMC) Planned for Fiscal Year 2008

Indices are established for each topical area based on historical performance and future expectations for improvement. ORP expects each organizational group to surpass the established index.

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
ORP FRAM	Ensure clear and unambiguous lines of authority and responsibility for safety.	ORP FRAM is updated annually by 05/31 and submitted to EM-1.	Taylor
Safety and Health	Safety is the dominant characteristic and value of the ORP. Safety comes first and is valued above production, budget, and schedule. Safety overrides every other priority. Achieve continuous improvement to the ORP safety and health program.	Zero ORP Federal staff recordable accidents and injuries in a fiscal year.	All Managers
		Evaluate each of the contractors 10 CFR 851, "Worker Safety and Health Program," (WSHP) implementation by 09/30/08 regarding: <ul style="list-style-type: none"> • Ability to ensure zero fatalities • Zero enforcement actions • Reduction in LWD rate compared to previous year • WSHP configuration control. 	Carrier
		Complete a DOE ORP Federal Safe Work Environment (SWE) Survey by 08/30/08.	B. Williams

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
Integrated Safety Management System (ISMS)	Effectively plan, oversee, and improve the safe conduct of work as required by DOE P 450.4.	Review and approve contractor ISMS descriptions and proposed performance measures annually by 09/30/08	Taylor
		Conduct annual ISMS assessment of the Analytical Services Production Contractor by 07/31/08	Noyes
		Conduct annual ISMS evaluation of the Tank Farms Contractor by 08/15/08	Noyes
		Annually self-assess the ORP ISMS and incorporate corrective actions by 09/30	Taylor
		Update and issue the ORP ISMSD by 09/30/08	Taylor
	Effectively plan, oversee, and improve the safe conduct of work as required by DOE P 450.4.	The ORP ISMS Annual Declaration Readiness Report is issued by 09/30/08	Eschenberg/Noyes
		Complete Oversight Performance Improvement Team Recommendations to senior management by 10/30/07	Carier
Environmental Management System (EMS)	Implement sound stewardship practices which are protective of the air, water, land, and other natural and cultural resources impacted by DOE.	In concert with the annual ISMS evaluation of the Tank Farms Contractor, complete an EMS assessment by 8/15/08	Taylor

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
Safety Basis and Authorization Basis Management	Ensure all work is executed consistent with safety, design, and any other requirements applicable to the affected facility.	At least 95% of the WTP Authorization Basis Amendment Request (ABAR) reviews are completed on schedule per the WTP Work Plan commitments	Griffith
		Tank Farm documented safety analysis (DSA) changes are processed and closed within 30 days after receipt	Bryson
Safeguards and Security Emergency Management	Ensure ORP protects information, and has the processes and procedures to react to emergencies effectively.	Zero security infractions for ORP Federal staff in a fiscal year	Royack
Project Management System	Implement effective management systems to ensure worker/ public/environment protection; effective utilization and control of project resources; and quality of work results.	Renegotiate applicable Tri-Party Agreement milestones by 10/01/07	Russell
		Corrective actions are reviewed monthly with the contractor for any cost or schedule variance which is greater than a negative 10%	Eschenberg/ Noyes
		ORP conducts monthly all-employees meeting with an emphasis on safety and project management	ORP Manager
Project Controls and Baseline Management	Ensure ORP implements sound project management principles and systems to successfully execute all projects and programs safely within budgeted cost, baseline schedule, and with quality results.	ORP dispositions Level 1 contractor change requests to DOE HQ within 30 days of receipt	Noyes/Eschenberg
Budget Formulation and Execution		Submit the budget request to EM-1 per the annual guidance schedule	Copeland
		Execute ORP's FY 2008 Budget without an anti-deficiency	Copeland

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
Acquisition Management	Establish acquisition principles and processes to ensure user needs translate into reliable and sustainable facilities, systems, and assets to complete the required mission.	Complete 85% of new competitive service awards over \$100,000 awarded within 120 days (except major site and facility management contracts)	Barrett
		Meet, or exceed, 90% of applicable DOE HQ Balanced Scorecard Targets	Barrett
Asset Management		Less than 5% of assets (value) assigned to Federal employees are lost, damaged, or stolen each fiscal year	Barrett
Assessment and Oversight Program/ Management Walkthrough (includes Performance Evaluation)	Ensure contractor assurance systems and DOE oversight programs are comprehensive and integrated for all aspects of operations essential to mission success.	Issue Assessment and Oversight Schedule annually by 09/30	Taylor
		ORP completes 90% or greater of annually planned assessments on schedule	Taylor
		Increase ORP self-assessments by 10% in FY 2008 over previous year	Taylor
		ORP line managers each spend at least 4 hours/month or 48 hours/year in the field	ORP Manager
Regulatory Compliance	Ensure regulatory compliance in all work activities. Ensure effective implementation of ORP NEPA responsibilities	ORP completes 90% or greater of planned environmental surveillances	All
		Produce a camera ready copy of the draft Tank Closure and Waste Management Environmental Impact Statement (TC & WM EIS) by 4/11/08	Burandt
Quality Assurance Program (QAP)	Ensure all performance results meet or exceed DOE requirements.	Self-assess the ORP QAP and incorporate improvements by 10/30/07	Vega
Employee Concern Program (ECP)	Ensure work-related concerns are addressed promptly, objectively, and with satisfactory resolution.	Perform an annual assessment of the ORP ECP by 12/31/07 and evaluate timeliness of disposition of employee concerns and differing professional opinions	B. Williams

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
Qualifications Program Plan	Improve ORP workforce development, performance and technical effectiveness through a disciplined and well-planned training and qualification requirements program.	Issue the updated Safety Oversight (SO) Qualifications Program Plan by 04/30/08	Scott
		ORP TQP is accredited to the Institute for Nuclear Power Operations (INPO) standards by 09/30/08	Bryson
90% of all AMD personnel meet: <ul style="list-style-type: none"> • Qualification standards of the Acquisition Career Development (ACD) program (Individuals receiving a written waiver from DOE HQ are excepted) • ACD Continuous Learning Requirement 		Barrett	
Training, Federal Technical Capability Program			
Facility Representative Oversight	To provide effective day-to-day oversight of contractor operations at DOE facilities so that line managers have accurate information on safe work performance.	ORP to perform program surveillances of all the major applicable safety areas as defined in 29 CFR 1926/1910 including the top ten safety standard violations cited by OSHA by 09/30/08	Bruggeman
Lessons Learned	Implement continuous operating experience feedback to improve results and prevent recurring adverse events.	Distribute key lesson learned items to Federal staff within 30 days of receipt	Polehn
Corrective Actions		Complete 100% of DOE HQ actions by the committed date	Olinger/Smith

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
Engineering & Design Oversight	Ensure a systematic approach for analyzing the functional requirements of systems, equipment, materials, and facilities for the purpose of achieving the essential functions at the lowest total cost, consistent with the needed performance, safety, and quality.	Update and enhance the ORP Engineering procedures by 12/31/07. Develop new procedures for the following areas by 12/31/07: <ul style="list-style-type: none"> • Design Reviews • Technology Readiness Assessments • Engineering Walkthroughs • Preliminary Safety Analysis Report (PSAR) Reviews • ABAR processing reviews 	Griffith and Bryson
Issues Management System	Ensure an effective corrective action and issues management program to resolve and prevent the recurrence of identified problems, and achieve continuous improvement.	Provide a weekly ORP Manager's Top Ten Issues and Deliverables report for ORP management review	Z. Smith
Human Resource Management/Employee Training and Development	Ensure strategic and effective alignment of ORP human capital with the mission, project goals, and organizational objectives.	90% of employees complete individual development plan (IDP) commitments as negotiated with supervisor	All/Fetto
		Meet the EM Career Intern Program requirements for interns (mentoring, rotational assignments, and training)	All/Fetto
Workforce Management		ORP Human Capital Management Plan is updated annually by 09/30	Olinger/Fetto

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
Performance and Recognition Program	Establish viable requirements and responsibilities for employee performance appraisals, performance-related awards, and other forms of employee recognition	IDPs, individual performance plans (IPP), and Employee Job Task Analyses (EJTA) are reviewed and approved by 10/30/07	All/Fetto
Continuous Improvement	Continuously improve ORP Federal management systems and processes.	Perform an annual Assurance System (ORP M 226.1) self-assessment and contractor assessment by 09/30	Taylor
Communications	Ensure effective and forthright communication with employees, stakeholders, and Tribal Nations.	Establish communication plans for the Nez Perce, Umatilla, and Yakama Nation Tribes by 09/30/08	Olds
		Update and implement the ORP External Communications Plan by 09/30/08	Olds
Directives Management	Ensure adequate management system procedures are maintained and utilized for DOE ORP activities.	Complete review and approval of all ORP directive Record of Decisions within 60 days from date of release	B. Williams
		Identify and implement additional ORP-specific procedures or program plans desired for Human Resources, Communications, and Safeguards and Security by 12/31/07	B. Williams
Financial Management System	Establish standards and procedures for sound financial management practices, effective internal controls, timely financial information, and qualified management.	No significant ORP findings on the FY 2008 OIG/KPMG Consolidated Financial Statement Audit and data accuracy/integrity are maintained in the financial systems	Copeland

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
Operating and Construction Agreements	Ensure ORP implements sound project management principles to successfully execute all projects and programs safely within budgeted cost, baseline schedule, and with quality results.	ORP Operating and Construction Agreements are reviewed annually by September 30th to ensure requirements and project information is current	Eschenberg and Noyes
Assessment and Oversight Program	Ensure contractor assurance systems and DOE oversight programs are comprehensive and integrated for all aspects of operations essential to mission success.	Implement ORP M 220.1, Revision 5; train all ORP assessors to requirements; and evaluate effectiveness of implementation by 05/31/08.	Carier
ISMS	Effectively plan, oversee, and improve the safe conduct of work as required by DOE P 450.4 .	Conduct the annual Bechtel National, Inc. ISMS Program assessment by 07/31/08.	Eschenberg
Engineering & Design Oversight	Ensure a systematic approach for analyzing the functional requirements of systems, equipment, materials, and facilities for the purpose of achieving the essential functions at the lowest total cost, consistent with the needed performance, safety, and quality.	Perform an adequacy and effectiveness assessment of the CH2M HILL Hanford Group, Inc. engineering programs by 06/30/08.	Bryson.

ORP FY 2008 Proposed Safety Performance Measures (Yellow Highlight Indicates New Item)

Management System	Objective	Performance Measure/Commitment	Owner
Regulatory Compliance/ NEPA	Ensure effective implementation of ORP NEPA responsibilities.	Perform effective consultation with the Tribal Nations for the Tank Closure and Waste Management Environmental Impact Statement by 02/28/08.	Burandt and Olds
Issues Management System	Ensure an effective corrective action and issues management program to resolve and prevent the recurrence of identified problems, and achieve continuous improvement.	Provide a weekly ORP Manager's Top Ten Issues and Deliverables report for ORP management review. Drive all actions towards timely completion and resolution as scheduled.	Z. Smith

Appendix C. References

The ability to link to certain documents is dependent upon the user's level of access. Contact your systems administrator should you have any problems accessing any of the following document hyperlinks.

07-TED-020, *Safety Oversight (SO) Program Plan, Revision 3*

10 CFR 830. "Nuclear Safety Management"

10 CFR 851, "Worker Safety and Health Program"

29 CFR 1926/1910, "Occupational Safety and Health"

24590-WTP-GPP-GAB-422, *Change Control Program*

24590-WTP-SRD-ESH-01-001-02, *Safety Requirements Document, Volume II*

A-07-ESQ-ORP-001, *Self-Assessment of Office of River Protection's Management Systems*
<http://www.hanford.gov/orp/uploadfiles/A-07-ESQ-ORP-001.pdf>

Bechtel National, Inc. Contract DE-AC27-01RL14136,
<http://www.hanford.gov/orp/?page=40&parent=39>

CH2M HILL Contract DE-AC27-99RL14047,
<http://www.hanford.gov/orp/?page=53&parent=39>

DEAR 970.5204-2 (7), *DOE Management and Operating Contracts*

DEAR 48 CFR 970.5223-1(e), "Integration of environment, safety, and health into work planning and execution,"

Defense Nuclear Facilities Safety Board (DNFSB or Board) Recommendation 2004-1, *Oversight of Complex, High-Hazard Nuclear Operations, (2004-1 IP)*

DOE G 450.4-1B, *Integrated Safety Management System Guide for use with Safety Management System Policies*

DOE-HDBK-1092-98, *DOE Handbook Electrical Safety*

DOE M 135.1-1A, *Department of Energy Budget Execution Funds Distribution and Control Manual*

DOE M 411.1-1C, *Safety Management and Functions, Responsibilities, and Authorities Manual*

DOE M 425.1, *Startup and Restart of Tank Farm Contractor Nuclear Facilities*

DOE M 426.1-1A, *Federal Technical Capability Manual*

DOE M 450.4-1, *Integrated Safety Management System Manual*

DOE O 226.1, *Implementation of Department of Energy Oversight Policy*

DOE O 320.1 C1, *Acquiring and Positioning Human Resources*

DOE O 360.1B, *Federal Employee Training*

DOE/ORP-2006-02, *Project Execution Plan for the Waste Treatment and Immobilization Plant (WTP) Project*, <http://apweb04.rl.gov/doeorp/orp/index.cfm?PageNum=6>

DOE O 413.3A, Change 1, *Program and Project Management for the Acquisition of Capital Assets*

DOE O 414.1C, *Quality Assurance*

DOE O 420.1B, *Facility Safety*

DOE O 425.1C, *Startup and Restart of Nuclear Facilities*

DOE O 440.1A, *Worker Protection Management for DOE Federal and Contractor Employees*

DOE O 450.1, Change 1, *Environmental Protection Program*

DOE P 450.4, *Safety Management System Policy*

DOE P 450.5, *Line Environment, Safety, and Health Oversight*

DOE/RL-2002-47, Rev. D, *Performance Management Plan for the Accelerated Cleanup of the Hanford Site*, <http://www.hanford.gov/docs/rl-2002-47/rl-2002-47.pdf>.

DOE-STD-3009-94, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Documented Safety Analyses*

Hanford Federal Facility Agreement and Consent Order
<http://www.hanford.gov/?page=91&parent=0>

HNF-SD-MP-SRID-001, *Tank Farm Contractor Standards/Requirements Identification Document*

ISMS Readiness Declaration Process Desk Instruction 3.1
<http://apweb04.rl.gov/doeorp/orp/docs/94/docs/DI-3-1.pdf>

Office of Environmental Management (EM) *Safety Management Functions, Responsibilities and Authorities (FRA)*: <http://apweb04.rl.gov/doeorp/orp/docs/6/docs/EM%20FRA.pdf>

ORP FEOSH Program Plan

ORP M 210.1, *Operating Experience and Lessons Learned Program*

ORP M 220.1, *Integrated Assessment Plan*

ORP M 226.1, *Assurance System Description*

ORP M 243.1, *Operational Awareness Oversight Database*

ORP M 251.1, *ORP Implementing Directives (ORPID) System Manual*

ORP M 411.1-1, Rev. 5, *Safety Management Functions, Responsibilities, and Authorities Manual for the U.S. Department of Energy, Office of River Protection*

ORP M 413.3-1, *Project Reviews and Baseline Change Control*

ORP M 413.3-1a, *WTP Baseline Change Control*

ORP M 413.3-1b, *Baseline Change Control for Tank Farms*

ORP M 413.3-1c, *River Protection Project Integrated Risk Management Process Manual*

ORP M 413.3-1d, *River Protection Project Federal Risk Management Plan*

ORP M 414.1, Rev. 1, *Quality Assurance Program Description*

ORP M 420.1-1, *Fire Protection Program*

ORP M 420.2c, *Facility Representative Program*, Revision 2c

ORP M 425.1, *Startup and Restart of Tank Farm Contractor Nuclear Facilities*

ORP M 432.1, *WTP Project Construction Oversight Manual*

ORP PD 420.3, *Safety Basis Management*

RIMS, *Communications Management System*

RIMS, *Federal Employee Occupational Safety and Health (FEOSH), Hanford's Program*

RIMS, *Human Resources Management System*

RIMS, *Training and Employee Development System*

RIMS, *Workforce Management System*

SO Oversight Qualification Process, SO-DI-001, Revision 2

U.S. DOE Federal Technical Capability Program Corrective Action Plan, Revision 1,
January 2007

Appendix D. DOE M 450.4-1 Compliance Matrix

Per [DOE M 450.4-1](#), *Integrated Safety Management System Manual*, the field office Integrated Safety Management System Description (ISMSD) must be compliant with Chapter II, “Requirements.” The following table shows where in the ORP ISMSD demonstrates compliance with these requirements.

M 450.4-1 Requirements	ORP Compliant?	ORP ISMSD Reference
1.b.1.a - how the field office defines work activities related to achieving the ISM objective of safe mission accomplishment	Yes	Sections 5.0 and 6.0
1.b.1.b – identification of the ISM implementing mechanisms, processes and methods by which the field office implements the ISM guiding principles	Yes	Section 6.0
1.b.1.c – identification of the ISM implementing mechanisms, processes and methods by which the field office implements the five ISM core functions	Yes	Section 6.0
1.b.1.d – define how EMS, QAP, and other management systems and processes are integrated into the ISM system	Yes	Section 7.0
1.b.1.e – define how the field office will measure ISM effectiveness, perform annual ISM effectiveness reviews, prepare annual ISM declarations	Yes	Sections 6.0, 8.0, 9.0, and Appendix B
1.b.1.f – define how the field office will establish, document, and implement relevant safety performance objectives, measures, and Commitments	Yes	Sections 6.0 and Appendix B
1.b.1.g – define how the field office will maintain its ISM system description so that it is accurate and up-to-date, and demonstrate continuous improvement in its performance of safe work activities	Yes	Sections 8.0 and 9.0
1.b.1.h – define how the ISM implementing mechanisms and processes that will be used to meet the field office responsibilities	Yes	Section 6.0