Office of Civilian Radioactive Waste Management

Program Manual

Phase 1



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LIST OF ACRONYMS

CD — Critical Decision

CDR — Conceptual Design Report

CO — Contracting Officer

COR — Contracting Officer's Representative

COTR — Contracting Officer's Technical Representative

DOE — U.S. Department of Energy

EH U.S. Department of Energy, Office of Environment, Safety and Health EM U.S. Department of Energy, Office of Environmental Management

ESAAB — Energy Systems Acquisition Advisory Board

ES&H — Environment, Safety, and Health

HQ — Headquarters

LSN — Licensing Support Network
M&O — Management and Operating

NE — U.S. Department of Energy, Office of Nuclear Energy

NEPA — National Environmental Policy Act
NNSA — National Nuclear Security Administration
NRC — U.S. Nuclear Regulatory Commission

NTS — Nevada Test Site

NWTRB — Nuclear Waste Technical Review Board

OCRWM — Office of Civilian Radioactive Waste Management

OMB — Office of Management and Budget

OA — Quality Assurance

OARD — Quality Assurance Requirements and Description

RCRA — Resource Conservation and Recovery Act

SAE — Secretarial Acquisition Executive
SCWE — Safety-Conscious Work Environment

TSLCC — Total System Life Cycle Cost

USGS — U.S. Geological Survey YMP — Yucca Mountain Project

INTRODUCTION

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This Program Manual communicates the management expectations and organizational approach for the U.S. Department of Energy (DOE) Office of Civilian Radioactive Waste Management (OCRWM) Program.

This Program Manual is one of the required action items outlined in the Management Improvement Initiatives (PLN-CRW-AD-000009) submitted by OCRWM to the Nuclear Regulatory Commission (NRC) in July 2002. The primary purpose of the Program Manual is to delineate a realignment of the OCRWM organization and clearly define the roles, responsibilities, authority, and accountability for program functions supporting the licensing process for Yucca Mountain. The Program Manual is being issued in three phases so that the desired outcomes can be achieved in an orderly and effective manner.

- Phase 1 defines and communicates the OCRWM management approach and expectations, with an emphasis on what needs to be achieved within the OCRWM Program. It establishes the high-level functional responsibilities for the OCRWM organization, including the basic roles and responsibilities of Headquarters (HQ), the Project Office for the Yucca Mountain Project (YMP), and the Management and Operating (M&O) contractor for the project. Development of Phase 1 was completed in August 2002.
- Phase 2 will provide further definition of the OCRWM organizational structure and the roles, responsibilities, authority, and accountability of the organizational elements that the OCRWM Program comprises. It will communicate how the organization will realign to perform identified roles and responsibilities, including implementing guidelines for the functional areas and defined interfaces for HQ, YMP, and the M&O contractor. In addition, Phase 2 will provide more information on selected functional areas that will be subject to management focus and attention. These focus areas include the national transportation program, repository design, systems analysis and integration, baseline and configuration management, and program monitoring and control. Phase 2 is planned for September 2002.
- Phase 3 will complete the full implementation of the organizational realignment described in the Management Improvement Initiatives. It will identify the ownership and accountability for each functional area of the program; provide detailed information on the roles, responsibilities, authority, and accountability of organizational components; and address the responsibilities and interfaces associated with each element in the M&O contract. Phase 3 is planned for October 2002.

The ultimate objective of the Program Manual is to clearly communicate the organizational structure, interfaces, and roles and responsibilities of OCRWM Program participants in meeting program and mission requirements. Management expectations outlined in the Program Manual

focus on the responsibilities for quality management in all aspects of our work, improved integration across the various program elements, and the establishment of clearly defined responsibilities and accountabilities of line managers for achieving program goals. The Program Manual emphasizes the distinction between HQ, YMP, and M&O contractor functions. As such, it stresses the traditional role of HQ to provide leadership and oversight, establish program goals and expectations, and measure performance of program execution, but moves away from day-to-day involvement by HQ in the YMP and M&O contractor activities. The YMP is responsible for communicating requirements and providing technical direction to the M&O contractor, and for overseeing contractor performance in implementing the OCRWM requirements. The M&O contractor receives technical direction from the YMP and is responsible and directly accountable for managing the scope of work to meet the defined performance objectives.

The approach outlined in the Program Manual will lead to improved program performance by identifying specific responsibilities and accountabilities for each aspect of the program, streamlining and optimizing program resources, minimizing duplication of effort, and clearly delineating the ways in which government and contractor participants interact to ensure that program goals and objectives are met.

The issuance of this Program Manual is particularly important as the OCRWM Program transitions from site recommendation to the next phase of the program—development and submittal of the license application. Acceptance of the license application by NRC is a prerequisite to construction authorization and eventual licensing and operation of the Yucca Mountain repository for safe, permanent disposal of spent nuclear fuel and high-level radioactive waste. The pre-license application and licensing phases of the program require the efficient execution and integration of activities to meet rigorous safety, technical, management, and schedule requirements.

The Program Manual is a key upper tier document that will delineate management alignment and program execution. The Program Manual establishes an overall framework for program operation and communicates management principles and expectations for work planning, performance, and control that are critical to our success in meeting mission objectives for the next phase of our program.

In structuring this Program Manual, the intent was to produce a document that would be useful and serve as a readily available resource to understand the organizational roles and responsibilities in the context of our program mission. The Manual is organized into the following sections:

- Our new way of doing business
- OCRWM Program mission
- Management principles
- Management expectations
- Individuals authorized to direct the contractor
- Flowdown of program direction
- Principal role of HQ, the YMP, and the M&O contractor
- Roles and responsibilities for specific functional areas of the program.

This is an exciting, yet challenging, time for the OCRWM Program. To succeed in licensing Yucca Mountain as the Nation's first permanent repository for high-level waste and spent nuclear fuel, we must transform our organization and adopt new ways of doing business. We must continue to work as a team, with a clear understanding of our respective roles and responsibilities, and clear accountability for each function we perform. As program participants read and understand the management expectations and approach presented in this Manual, we will achieve an important first step in realigning our organization to successfully complete the licensing phase of this important national program.

OUR NEW WAY OF DOING BUSINESS

The following pages of this Program Manual present a new way of doing business. The changes outlined in the Manual are critical to our mission success. Each participant in the program, from Federal and contractor organizations, must work according to our new Program Manual so that we, as a team, can achieve a successful license application, on schedule, and begin to receive and emplace high-level waste and spent nuclear fuel at the Yucca Mountain facility by 2010.

All of us, under the leadership of our management team, are expected to move forward in implementing this new way of doing business, embracing change, challenging the status quo, and contributing to the benefits and positive outcomes that will result.

This Program Manual emphasizes three fundamental changes in the way we do business:

■ Direction to the M&O contractor will be provided through a single, authorized source.

DOE will coordinate HQ and Project Office functions and provide direction to the M&O contractor only through the designated Contracting Officer (CO) or the Contracting Officer's Representative (COR). This will eliminate multiple sources of direction for the project.

Roles and responsibilities of Federal and contractor participants will be realigned to improve accountability and program performance.

We will realign the OCRWM organization to clarify the roles and responsibilities of Federal and contractor participants. In this realignment, we will embrace the concepts of performance-based contracting, where the government establishes requirements and allows the contractor to perform work necessary to meet those requirements:

- HQ sets policy and expectations, monitors key performance indicators, and has decision authority for critical outcomes including quality, safety, regulatory acceptance, and fiscal responsibility.
- YMP has responsibility for providing requirements and technical direction and overseeing the M&O contractor to monitor performance. YMP decision authority is focused on the definition of requirements and oversight of contractor performance to achieve critical outcomes.
- The M&O contractor manages and performs the work scope and monitors work to ensure requirements are met. Performance measures developed in accordance with contract requirements will be used to monitor the contractor's work.
- Program participants will have ownership and accountability for program success.

Authority and accountability will be commensurate with assigned roles and responsibilities. Program participants will know what is expected and be held accountable for meeting those expectations.

OCRWM PROGRAM MISSION

Our mission is to manage and dispose of the Nation's spent nuclear fuel and high-level radioactive waste. We will provide leadership in developing and implementing strategies that assure public and worker health and safety, protect the environment, merit public confidence, and are economically viable.

MANAGEMENT PRINCIPLES

- Clearly define requirements, goals, and expectations for program performance
- Maintain safe and efficient work practices
- Perform quality work that meets requirements
- Establish clear lines of authority, responsibility, and accountability
- Manage a streamlined, efficient organization focused on mission requirements
- Achieve results through effective communication and teamwork
- Monitor and recognize performance

MANAGEMENT EXPECTATIONS

- Program participants share a commitment for program success. They actively participate as members of the program Team in meeting requirements, solving problems, and achieving continuous improvement to meet program objectives.
- Program participants understand their roles and responsibilities and operate accordingly. Headquarters sets expectations, develops policy, and monitors progress. The YMP translates HQ expectations and policies into requirements and communicates these to the M&O contractor. The YMP oversees M&O contractor performance. The M&O contractor implements requirements, monitors performance, and takes corrective actions to ensure requirements are met.
- Safety and quality assurance are integral to the way we do business. Safety and quality are line management responsibilities that are shared by all program participants. The OCRWM Director has overall responsibility for safety and quality and directs HQ and YMP organizations in overseeing and monitoring work to ensure safety and quality are achieved. The M&O contractor is responsible for implementing quality management and safety in each aspect of project operations.
- Managers have ownership and accountability for their assigned areas. They know what they are managing and understand their assigned areas. They have the authority, responsibility, and resources to carry out their assignments and are held accountable for achieving results.
- Direction to the M&O contractor is provided through the authorized Contracting Officer or Contracting Officer's Representative and will fully embrace the concepts of performance-based contracting. Clear lines of authority and responsibility for defining and communicating contractor requirements will improve program coordination and allow focus on approved work that is needed to meet program objectives. Line management will recommend technical directions to the contractor through the Contacting Officer's Representative. We will employ the principles of performance-based contracting, establishing clear requirements and performance metrics for the contractor and allowing the contractor to perform the work needed to meet these requirements without detailed, day-to-day involvement of the government in contractor work activities.
- Issues and disputes are identified, elevated as needed, and resolved in a timely manner. We, as a team, strive to identify and resolve issues through the appropriate process, and if necessary, escalate disputes and issues to progressively higher levels of management until the issue is resolved. Any employee should feel free to raise an issue with management and expect prompt, objective attention without fear of reprisal.
- Program participants comply with established policies and procedures for work processes. DOE and the M&O contractor will develop separate sets of effective and efficient procedures that implement applicable requirements; are commensurate with the complexity, safety, and quality significance of the task; and fully support the licensing activities. Personnel will be trained in the use of these procedures and compliance will be monitored as a normal course of business.
- Management leads by example. Managers assigned to the OCRWM Program stand by the principles and meet the expectations set forth in this Manual. Successful performance is acknowledged and failure to perform bears consequences.
- Management decisions are honored. Program participants bring diverse experience and expertise to the Program, and contribute great value to the decision process through their input and perspectives. However, once final decisions have been made, program participants honor those decisions and follow the course of action required by those decisions.

INDIVIDUALS AUTHORIZED TO DIRECT THE CONTRACTOR

In order to implement the management approach outlined in this Manual, authorities for direction of contractor activities will be strictly limited and controlled. All direction to the contractor must flow through an authorized source as indicated below:

Contracting Officer (CO)

Only individual authorized to negotiate terms or make agreements or commitments
with the contractor which modify terms and conditions of the contract (e.g., contract
amount, period of performance, scope of work)

Contracting Officer's Representative (COR)

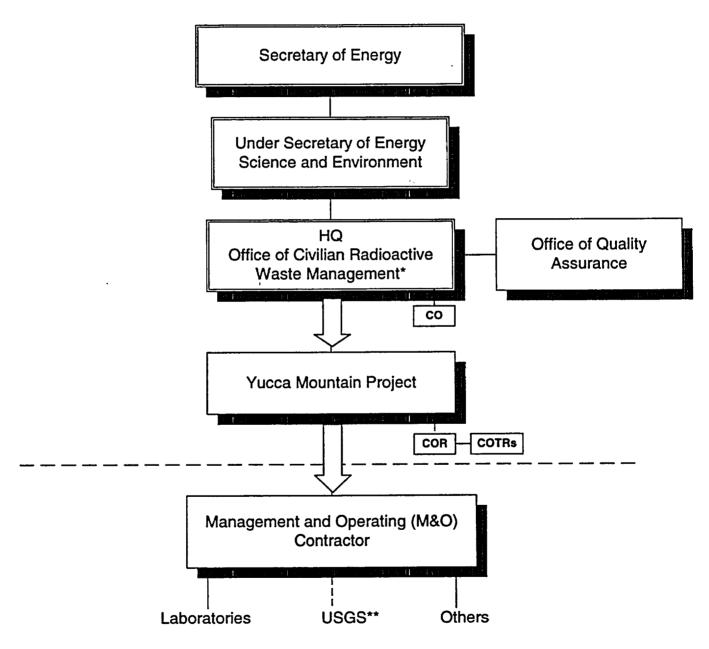
- The YMP Project Manager will serve as the sole COR for YMP activities
- Acts as an authorized representative of the CO for functions that do <u>not</u> involve a change in scope, price, terms, or conditions of the contract. COR duties include:
 - Monitoring and reviewing the fulfillment of contract requirements and performance measurement objectives and evaluating contractor performance
 - Reviewing, and where required by the contract, approving reports, drawings,
 specifications, and information delivered by the contractor
 - Accepting/rejecting final contract deliverables [note: only the CO is authorized to grant relief, accept non-conforming work, or waive any requirement of the contract]
 - Providing technical direction to the contractor that redirects the contract effort, shifts work emphasis within a work area or Work Authorization Directive, requires pursuit of certain lines of inquiry, fills in details, or otherwise serves to accomplish the contractual Statement of Work

Contracting Officer's Technical Representative (COTR)

- Is formally designated by the CO to assist the Project Manager in executing COR responsibilities
- Is <u>not</u> authorized to provide technical direction or redirection to the contractor beyond the authorized scope (this may only be issued by the CO)
- Assists the CO and COR in ensuring both the government and contractor comply with contractual technical obligations
- Monitors assigned elements of the contract scope of work
- Reports variances and performance evaluations to the CO and COR

FLOWDOWN OF PROGRAM DIRECTION

The direct line for project execution flows from the OCRWM Director at HQ to the DOE Project Manager at the YMP to the Project Manager for the M&O contractor.



NOTE:

*The National Transportation Program is not shown in this figure, but will be more fully addressed in Phase 2.

^{**}The M&O contractor coordinates and integrates work performed by the USGS, but does not administer the USGS agreement.

PRINCIPAL ROLE OF HO, PROJECT OFFICE, AND M&O CONTRACTOR

OCRWM Program participants have unique and complementary roles. They are summarized below.

HQ

- Provides direction, resources, and priorities to the YMP for the successful completion of quality work in a safe and environmentally acceptable manner
- Establishes policy and expectations for program performance
- Ensures compliance with HQ policies and procedures
- Provides analysis, options, and information to shape policy and strategy; allocates resources; and serves as primary spokesperson for the program
- Integrates program activities and monitors program performance
- Resolves issues elevated by program participants

YMP

- Establishes and communicates requirements based on HQ policy and expectations
- Provides technical direction to the M&O contractor
- Ensures project operations meet quality requirements and are carried out in a safe and environmentally acceptable manner
- Ensures compliance with YMP policies and procedures
- Provides oversight of the M&O contractor
- Monitors contractor performance
- Elevates issues requiring HQ attention

M&O Contractor

- Manages and performs scope of work, monitors performance, and takes appropriate corrective actions to ensure requirements are met
- Ensures compliance with M&O contractor procedures
- Elevates issues requiring YMP attention

ROLES AND RESPONSIBILITIES FOR FUNCTIONAL AREAS

This section outlines the roles and responsibilities of HQ, the YMP, and the M&O contractor for the following functional areas associated with the OCRWM Program.

- 1. Program Planning, Organization, and Management
- 2. Licensing and Regulatory Interactions
- 3. Performance Assessment and Performance Confirmation
- 4. Repository Design
- 5. Requirements Management and Configuration Management
- 6. Quality Assurance
- 7. Waste Acceptance
- 8. Transportation
- 9. Site Operations
- 10. Environment, Safety, and Health (ES&H)
- 11. Safety Conscious Work Environment (SCWE)
- 12. Systems Analysis and Integration
- 13. Procurement and Contract Management
- 14. Budget and Financial Management
- 15. Program Monitoring and Control
- 16. Information Management
- 17. External Communication and Stakeholder Involvement Programs
- 18. Nuclear Waste Technical Review Board (NWTRB) Interactions
- 19. International Programs

1. Program Planning, Organization, and Management

Covers the functions associated with program planning, organization, and management. Includes organizational structure, strategic and program planning, development of policies and procedures, and resource management.

struc	ucture, strategic and program planning, development of policies and procedures, and resource management.		
,	Headquarters	Yucca Mountain Project	M&O Contractor
Organization	 Establish the OCRWM organizational structure including the organizational roles, responsibilities, authority, and accountability for key program functions. Implement the OCRWM organization at the HQ level. 	 Establish, document, and communicate roles, responsibilities, authority, and accountability of DOE personnel that report to the Yucca Mountain Project Manager. Implement the OCRWM organization at the project level. 	Establish, document, and communicate roles, responsibilities, authority, and accountability of contractor personnel.
n Planning	 Confirm mission and establish strategic objectives. Establish upper tier milestones. 	Confirm project mission and establish strategic objectives to support program mission.	Support development of strategic and program plans.
Strategic and Program Planning	Integrate and compile strategic and program plans.	Develop the project plans to accomplish program objectives and milestones.	
Strategic	Establish performance objectives and performance metrics.	Communicate performance objectives and performance metrics.	Plan, schedule, and prioritize work and implement plan to meet performance objectives and performance metrics.
Policies and Procedures	 Establish requirements and policies for OCRWM program. Interface on policy issues with top management, outside agencies, and stakeholders. 	 Support HQ policy development. Communicate requirements and policies to contractor. 	Develop and implement contractor project procedures to meet policy and program requirements.
Pólicies a	 Develop and implement HQ project procedures. Resolve policy issues elevated by program participants. 	 Develop and implement YMP project procedures. Elevate issues requiring management attention. 	Elevate issues requiring management attention.
	 Allocate DOE personnel resources for OCRWM program. Issue staffing guidance for HQ and Project Office staff. 	 Allocate DOE personnel resources within Project Office. Implement DOE personnel guidance. 	Manage resources and execute contract within approved baselines.
Resource Planning	 Establish policy for training of DOE and contractor personnel on OCRWM program. Implement training for HQ 	 Define and communicate training requirements. Implement training for YMP personnel. 	Implement training program for contractor personnel.
I	personnel.	possonion	contractor personner.

2. Licensing and Regulatory Interactions

Includes activities involved with licensing the Yucca Mountain Repository. This involves development and submittal of the license application to the Nuclear Regulatory Commission (NRC), supporting NRC review and submitting subsequent amendment requests, communications with the NRC, and coordination of program participation in licensing hearings and other interactions with NRC required to facilitate timely submittal and approval of the license application. This area also includes regulatory compliance activities associated with NRC assessments of DOE activities.

activi	Headquarters	Yucca Mountain Project	M&O Contractor
ensing Support	Develop policy and approve overall strategy and plan, including schedule, for license application, Licensing Support Network (LSN), support for NRC review, and subsequent license amendment for operation.	Provide technical direction and review and approve contractor strategy and plan for preparation of license application and LSN. Review and approve contractor	 Prepare strategy, plan, and schedule for preparation of license application. Manage and perform work scope to meet LSN requirements. Prepare responses to licensing
License Application Development and Licensing Support	 Conduct independent milestone reviews of license application development and subsequent licensing support activities. 	Monitor contractor performance against approved plans and direct corrective actions when necessary.	 Prepare license application and supporting information.
ication Dev		Define and implement process for DOE acceptance of contractor prepared license application.	 Integrate license application input from the national labs and U.S. Geological Survey (USGS).
License Appli	 Act as primary point of contact with DOE General Counsel (GC-1) on licensing related matters. 	 Coordinate and interface with General Counsel staff in the preparation of licensing-related information. 	
	 Submit license application and subsequent amendment requests to NRC. 		
License Application		Establish protocol for communications with regulatory agencies and licensing hearing boards.	
	Communicate with NRC and other agencies at top management levels on matters related to obtaining a repository license.	Conduct day-to-day interactions (verbal and written) with NRC (and other agency) management and staff.	 Provide technical expertise and input for interactions with NRC, other regulatory agencies, licensing boards, and external oversight groups.
tion Regarding and Licensing		Coordinate with HQ on licensing policy-related issues.	Coordinate with YMP on licensing policy-related issues.
Communication Regarding and Licensing S		Conduct meetings with the NRC and approve and submit commitments and correspondence to NRC.	

3. Performance Assessment and Performance Confirmation

Covers activities associated with conducting total system performance assessment per regulatory requirements on DOE approved repository design concept. Also involves conducting necessary testing and analysis as input to performance assessment and performance confirmation.

Headquarters	Yucca Mountain Project	M&O Contractor
Direct independent advisory reviews by scientific experts and direct actions to address findings.	 Develop strategy and provide technical direction for the conduct of performance assessment and performance confirmation activities. Approve performance confirmation program elements. 	 Develop and implement performance confirmation program. Conduct tests and analyses for performance confirmation and performance assessment that mee or exceed regulatory requirements.
	Oversee contractor preparation of performance assessment and performance confirmation activities and approve total system performance assessment acceptance criteria.	Develop total system performance assessment acceptance criteria as license application input.
	 Review and accept contractor prepared performance assessment. Defend technical and regulatory adequacy of performance confirmation and performance assessment results and criteria in licensing proceedings. 	Support the defense of technical and regulatory adequacy of performance confirmation and performance assessment results and criteria in licensing proceedings.
	Present the technical bases for performance confirmation and performance assessment to external oversight groups (e.g., Nuclear Waste Technical Review Board).	Support presentation of technical bases for performance confirmation and performance assessment to external oversight groups.

	4. Repository Design			
	Covers activities associated with repository design.			
	Headquarters	Yucca Mountain Project	M&O Contractor	
	Approve Critical Decision (CD)-1 package (preliminary baseline).	Define requirements for CD-1 package and prepare Project Execution Plan.	Prepare Conceptual Design Report (CDR) and support preparation of Project Execution Plan and other CD-1 documents as directed.	
lo	Present CD-1 package to Energy Systems Acquisition Advisory Board (ESAAB) for Secretarial Acquisition	Review and approve CD-1 package.		
Design Definition and Control	Executive (SAE) approval.	Approve and maintain Level-2 technical baseline.	Design repository (systems and subsystems) to meet DOE, regulatory, and technical requirements. Execute design activities on a day-to-day basis.	
gn Defin			Document technical baseline associated with the design.	
Desig			 Control changes to design in contractor configuration management system. 	
		 Communicate to HQ on potential design-related changes and issues that have policy or system implications. 	Communicate to YMP on potential design-related changes and issues that have policy or system implications.	
ion	Monitor design requirements for DOE and utility spent nuclear fuel and high-level waste.	Interface with national spent nuclear fuel programs and provide input to contractor.	Integrate M&O, laboratory, USGS, and subcontractor design products and scientific evaluations.	
Design Integration			Accommodate inputs from national spent nuclear fuel program.	
Desig			Integrate waste acceptance and transportation requirements into design, safety analysis, and operations.	
	Perform program assessment of risks, integration, and technical and costs issues.	Perform project assessment of risks, integration, and technical and cost issues.	Perform design authority responsibilities.	
uation			Perform design reviews (e.g., conceptual, preliminary, final).	
Design Evaluation		Participate with contractor on value engineering studies and design reviews.	Conduct value engineering studies.	

5. Requirements Management and Configuration Management

Covers activities associated with 1) the development, control, and allocation of requirements and 2) the overall project configuration management plan. The requirements management process captures the control and flowdown of requirements (not design solutions) through documents identified in the M&O contract. Configuration management refers to the process of controlling the configuration of the design and its interface with performance assessment.

ı	Headquarters	Yucca Mountain Project	M&O Contractor
	Establish configuration management policy.	Implement configuration management policy.	Develop configuration management plan and procedures
	·	Perform oversight of configuration management program to ensure effectiveness.	 Manage work consistent with configuration management plan and procedures.
	,		Develop and implement a requirements management plan.
	Establish and maintain Level-0 and Level-1 technical and programmatic requirements.	Establish and maintain Level-2 technical and programmatic requirements.	• Establish Level-3 and Level-4 technical and programmatic requirements.
nent			 Establish Level-3 and Level-4 technical baseline change contro processes.
n Managen		1	
nfiguration		,	
Requirements and Configuration Management			
Requirem	,		
-			
•			· · · · · · · · · · · · · · · · · · ·

6. Quality Assurance

Covers the full range of quality assurance (QA) and quality management functions on the OCRWM program. This includes development of QA requirements and plans and implementation of QA activities such as audits, assessments, inspections, surveillance, nonconformance control, corrective action, and continuous improvement programs.

inspe	Headquarters	e control, corrective action, and continution Yucca Mountain Project	M&O Contractor
	Has overall responsibility for establishment and successful execution of OCRWM QA program.	1 ucca Wountam Froject	Develop, implement, and manage a QA program that meets QARD requirements.
	Establish an independent QA organization that reports to the Director.		Establish an independent QA organization that reports to the M&O contractor President and General Manager.
gram	Establish and maintain QA requirements in a Quality Assurance Requirements and Description (QARD) document.	Ensure implementation of OCRWM QARD requirements.	Ensure QA requirements are implemented in project activities.
urance Pro		Provide direction for M&O contractor QA work activities.	Perform quality engineering to ensure QA requirements are being incorporated into work products.
Quality Assurance Program	Perform independent surveillances and compliance audits to ensure QARD requirements are implemented.	Support OCRWM QA program by conducting reviews, verification, and checking.	Perform surveillances, audits, assessments, independent oversight, and quality control inspections to ensure compliance with contractor QA program with respect to procedure requirements, design drawings, and specifications.
	 Perform independent performance-based surveillances and audits. 	 Monitor to ensure surveillance and audit findings are addressed and dispositioned. 	specifications.
	 Ensure EM and NE waste acceptance quality assurance requirements are implemented and verified. 		
Program	Administer Corrective Action Program.	Monitor to ensure corrective actions are implemented on a timely basis and trends indicate effectiveness of the program.	 Identify conditions adverse to quality and implement corrective actions. Identify, trend, and correct conditions adverse to quality.
Corrective Action Program	•		Verify effectiveness of corrective actions.
Correct			Perform self-assessments to improve work practices.

7. Waste Acceptance

Encompasses all activities required to maintain existing Standard Contracts and data collection related to waste acceptance. Also includes activities supporting the legal and physical transfer of spent fuel and high-level radioactive waste to the Federal Government and definition of waste acceptance requirements for DOE program offices such as the Office of Environmental Management (EM) and Office of Nuclear Energy (NE).

	Headquarters	Yucca Mountain Project	M&O Contractor
Waste Criteria	Establish waste acceptance requirements for project (repository and transportation).	 Support HQ waste acceptance requirements development. Oversee contractor activities to meet waste acceptance requirements. 	Manage and perform waste acceptance program activities. Provide input to Project Office and HQ regarding waste acceptance requirements for waste generators and providers.
	Manage and administer utility contracts (financial, logistics,	,	
	scheduling, litigation). Act as sole program interface with utility contract holders.	 Support HQ interactions with utility contract holders, EM, NE, and NNSA regarding spent nuclear fuel and high-level waste materials. 	Support DOE interactions with utility contract holders, EM, NE and NNSA regarding spent nuclear fuel and high-level wast materials.
Waste Acceptance Interface	• Act as sole program interface with EM, NE, and the National Nuclear Security Administration (NNSA) regarding DOE waste materials.		
	\$,	

8. Transportation

		Addresses all activities associated with transportation systems, components, and functions.			
-		· · · · · · · · · · · · · · · · · · ·	M&O Contractor		
	Headquarters • Establish strategy, define	Yucca Mountain Project Support HQ policy development	Support national transportation		
	requirements, and develop integrated policies and plans for transportation program.	and implementing processes.	program and Nevada transportation program as directed.		
	Authorize budget for transportation program.	Prepare and submit transportation budget request for Nevada transportation program to DOE National Transportation Program Manager.	-		
i	Oversee implementation of HQ policy and requirements for transportation program.	Manage Nevada transportation program that reports to DOE National Transportation Program Manager.			
rograms	Establish Nevada transportation policy/requirements.	Monitor contractor performance of activities supporting Nevada transportation program.			
tation P	Manage national transportation service contracts.				
National and State-level Transportation Programs	Monitor contractor performance of activities supporting national transportation program.				
and State-l	Manage 180(c) activities (training for transportation emergency response)				
lational	Manage regulatory interface for transportation activities.				
2	 Is responsible for National Environmental Policy Act (NEPA) activities related to transportation. 				

9. Site Operations

Covers support to field testing activities, utilities, property management and maintenance, on-site transportation, on-site construction and engineering design, and waste management (e.g., Resource Conservation Recovery Act (RCRA), sanitary, sewer) activities.

sanii	ary, sewer) activities.	,	
	Headquarters	Yucca Mountain Project	M&O Contractor
Facility and Site Operations	Establish expectations for facility and site operations.	 Establish site operations requirements and metrics. Review and approve contractor work scope as necessary to ensure site operations meet program requirements. Monitor execution of contractor work performance against approved work plans and contract requirements. Ensure site operations comply with applicable Federal, state, and local requirements. 	 Conduct facility and site operations activities (including facility/site operations and maintenance; facility design and construction; and infrastructure support) in accordance with contract requirements. Interface with Nevada Test Site for infrastructure services. Manage the on-site transportation program for hazardous waste. Implement facility, property, vehicle, capital asset, and labor management requirements. Implement effective work planning and control processes to ensure work is properly planned and executed in accordance with safety and quality requirements as well as applicable Federal, state, and local requirements.
Facility			

10. Environment, Safety, and Health (ES&H)

Includes all program activities required to ensure environmental protection and health and safety of workers and the public. Includes development of National Environmental Policy Act (NEPA) documentation, environmental monitoring, safety analysis, and Integrated Safety Management program requirements.

monii	nonitoring, safety analysis, and Integrated Safety Management program requirements.			
	Headquarters	Yucca Mountain Project	M&O Contractor	
npliance	Has overall responsibility for establishment and successful execution of OCRWM ES&H programs.	 Ensure implementation of ES&H requirements for all project activities. 	Implement ES&H requirements in project operations.	
egulatory Con	 Perform independent oversight and audits to ensure ES&H requirements are implemented. 	 Obtain applicable environmental permits for the project. Maintain agreements with Federal and state agencies. 	Perform activities necessary to satisfy environmental compliance requirements and support YMP in obtaining environmental permits and agreements.	
Environmental and Regulatory Compliance		 Approve NEPA documentation, oversee NEPA activities at the project, and provide primary liaison to DOE/HQ Office of Environment, Safety, and Health. 	Support YMP in ensuring project activities are within environmental baseline.	
y and Health	 Establish policy, expectations, and performance metrics for an Integrated Safety Management System (ISMS). Monitor effectiveness of ISMS for OCRWM program. 	Verify effectiveness of ISMS through verification reviews and self-assessments to ensure metrics are in the acceptable range and are either stable or improving.	 Implement an ISMS. Develop, implement, and maintain programs for industrial safety and health protection, radiological protection, and emergency management. 	
		 Perform all duties associated with the Authority Having Jurisdiction (AHJ) (e.g., electrical safety and fire protection). Maintain operational oversight of the contractor's activities and report potential or existing dangers to DOE line management. 	Establish, implement, and maintain a hazard identification and control program.	
Safety	Stop work if a clear and present safety danger exists.	Stop work if a clear and present safety danger or a risk for a catastrophic release to the environment exists and promptly notify the OCRWM Director and issue other required notifications.	Stop work if a clear and present safety danger or a risk for a catastrophic release to the environment exists and promptly notify YMP Manager and other required notifications.	

11. Safety-Conscious Work Environment (SCWE)

Covers activities associated with developing, managing, and maintaining a Safety-Conscious Work Environment (SCWE).

	Headquarters	Yucca Mountain Project	M&O Contractor
ment	Establish the vision and expectations for a Safety-Conscious Work Environment (SCWE).	Define the requirements for a Safety-Conscious Work Environment for the YMP and monitor the contractor's implementation of SCWE.	Establish and maintain a Safety - Conscious Work Environment to meet DOE requirements.
Work Environment	Monitor SCWE implementation on OCRWM program.	• Establish and maintain a SCWE for the YMP.	
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12. Systems Analysis and Integration

Covers the analysis and integration of cross-cutting issues and requirements that impact overall program performance, cost, or schedule. Includes systems analysis, alternative studies, and budget modeling.

	Headquarters	Yucca Mountain Project	M&O Contractor
	Develop the cross-cutting technical, cost, operational, performance, and schedule system studies and analyses that are needed for assessing impacts on Administration and program priorities.	Support HQ development of system studies and analyses.	• Conduct cross-cutting technical, cost, operational, performance, and schedule system studies and analyses that are needed for analyzing impacts on Administration and program priorities in accordance with performance metrics.
System Studies	Establish and approve performance metrics for contractor implementation of the approved list of system studies.	Assist in monitoring and oversight of contractor, as it relates to the system study products.	
	Provide oversight of overall system studies and analyses.	Communicate to HQ on emerging issues that have policy or system implications.	Communicate to YMP on emerging issues that have policy or system implications.
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13. Procurement and Contract Management

Covers all activities associated with procurement of materials, supplies, and services on the OCRWM program.

Includes acquisition planning, procurement, and contract management functions.

<u> </u>	Includes acquisition planning, procurement, and contract management functions.			
	Headquarters	Yucca Mountain Project	M&O Contractor	
	 Set program acquisition strategy. Manage program acquisition planning. 	Provide input to acquisition plans for project.	Provide input to acquisition plans for project.	
1	Provide acquisition and financial assistance support and guidance for contracts, grants and cooperative agreements; direct payments to state and local governments; small purchases; and government purchase cards.		Plan and perform work in accordance with contract requirements.	
l Procuremen	Approve scope of work and contract terms and conditions for prime contractors.	Develop scope of work for prime contractors. Propose changes to existing work scope and/or contract terms and conditions.	Propose and provide input on DOE proposed contract provision changes.	
Acquisition Planning and Procurement	Establish procurement authority and threshold approval levels for program participants. Procure services and supplies within designated procurement authority. Review and approve procurement actions above Contracting Officer threshold.		Procure services and supplies within designated procurement limits and authority.	
*	Serve as OCRWM Head of Contracting Authority/ Contracting Officer.	 Provide Contracting Officer Representative to direct and oversee contractor work. Develop contract requirements and provide technical direction to contractors. 	Evaluate technical direction and guidance against contract requirements and notify Contracting Officer and YMP management of potential changes in work scope.	
:		Assist in monitoring and oversight of contractors.	 Report cost, schedules, and progress per reporting requirements. 	
rd Fee	Issue work authorization directives for M&O contract.	Provide input for work authorization directives.	Provide input and assistance in determining content of work authorization directives.	
M&O Work and Award Fee	Administer M&O award fee and conducts fee negotiation.	Provide input to award fee determination.	 Execute work authorization plan. Provide self-assessment input for consideration in award fee determination. Conduct fee negotiations and provide input when the basis for award fee changes. 	

14. Budget and Financial Management

Addresses budget development, funds management, and other financial management issues. Includes development and review of Total System Life Cycle Cost (TSLCC) estimates; development of Fee Adequacy Reports; processing, review, and verification of utility fee payment data; and development of revenue projections. Incorporates data from systems analysis and integration function to develop budget and cost estimates.

	Headquarters	Yucca Mountain Project	M&O Contractor
	Set programmatic priorities and issue budget formulation guidance early in budget cycle.	Provide direction to contractors to develop work planning input.	Develop work planning input as directed.
ent	Review budget requests.	 Develop recommended budget request consistent with guidance and priorities and submit to HQ. 	Implement a system to manage available funds with fiscal year budgets and estimate-at- completion forecasts.
l Managem	Conduct independent benchmarking/validation activities.	Review and validate contractor budget input.	• In consultation with DOE, recommend cost/schedule improvements where appropriate.
Budget Development and Management	 Develop OCRWM budget. Defend budget during interactions within DOE, and with the Office of Management and Budget (OMB) and the 	Support HQ interactions on budget issues.	Support DOE interactions on budget issues.
Budget	Congress. Issue initial budget guidance and approve prioritized work scope, consistent with the budget. Allocate appropriated budget and provide funding guidance.	 Allocate assigned budget. Review multi-year and annual work plans. 	 Develop, maintain through baseline management, and execute multi-year annual work plans. Report financial accounting results to DOE.
nent and Fee s	Establish investment plan and program policy on Nuclear Waste Fund investments.	Provide technical direction to contractor on fee adequacy analysis.	Acquire financial data and simulate investment process for Nuclear Waste Fund to support fee adequacy analysis.
Nuclear Waste Fund Management a Adequacy Analysis	Establish requirements (including timing) for updating the Total System Life Cycle Cost (TSLCC) and fee adequacy analysis.		Provide major updates to the TSLCC, based on program Critical Decisions, and more frequent updates through the trend process in support of what-if studies and fee adequacy analysis.
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15. Program Monitoring and Control

Covers activities associated with the process controls applied to: 1) Level-0, 1, 2, and 3 cost baselines; 2) Level 0, 1, 2, and 3 schedule baselines; 3) Level 1, 2, and 3 requirements (see functional area 5), and 4) Level 2 and 3 technical baselines (see functional area 4).

basei	elines (see functional area 4). Hoodquarters Vucco Mountain Project M&O Contractor				
	Headquarters	Yucca Mountain Project	M&O Contractor		
Performance Objectives	Establish OCRWM Program performance objectives and performance metrics.	Communicate and monitor contractor performance objectives and performance metrics.	Conduct activities to meet performance objectives and performance metrics.		
Perfo Obj	 Ensure compliance with policies and procedures. 	 Monitor to ensure compliance with policies and procedures. 	 Monitor to ensure compliance with policies and procedures. 		
	 Develop and communicate policy requiring development and maintenance of a Program baseline. 	Establish contractor reporting requirements.	Document a baseline management plan/procedure. Develop and maintain the life cycle baseline control documents (scope, cost, and schedule).		
	 Establish cost and schedule reporting and change thresholds for Level-0 (Secretarial approval), Level-1 (RW-1 approval), and Level 2 (YMP 	Report on technical, cost, and schedule performance and variances per established requirements.	 Report on technical, cost, and schedule performance and variances per contract requirements. 		
	Project Manager approval), and Level 3 (contractor approval) changes.	 Provide "early alert" reports to HQ on emerging/sensitive issues. Prior to submittal of baseline change proposal, communicate 	Provide "early alert" reports to Project Manager on emerging issues and trends.		
		any policy implications to HQ.	 Manage ongoing trends analysis program. 		
rol	Prepare procedure to implement Level-0 and Level-1 changes.	Prepare procedure to implement Level-2 (YMP Project Manager approval) changes.	Prepare contractor procedure to implement Level-3 and Level-4 changes.		
Baseline Control	Establish Level-0 and Level-1 Change Control Boards. Chair Baseline Change Control Board for Level-0 and Level-1	Establish Level-2 Change Control Board. Chair Baseline Change Control Board for Level-2 changes.	Establish Level-3 Change Control Board. Chair Baseline Change Control Board for Level-3.		
Bas	changes.	changes.	Maintain required records to document and track scope, cost, and schedule baseline changes.		
	Conduct program reviews and monitor key performance indicators for program at least quarterly.	Monitor cost, schedule, and technical performance; oversee corrective actions where necessary.	Manage day-to-day technical, cost, and schedule performance to established baselines. Identify and perform corrective actions where necessary.		
			Prepare risk management plan and procedures and manage risk through risk mitigation plans.		
	Provide program and policy direction based on YMP monitoring results and baseline reviews.	Provide routine reports on project performance to HQ.	Provide routine reports on project performance to YMP.		
	101201131	Support baseline reviews and baseline validations.	Support external baseline reviews and validations.		

16. Information Management

Includes information systems and network support, information security, data management, document development and control, and records management.

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	Headquarters	Yucca Mountain Project	M&O Contractor
, ¢	Develop policies for cyber security and information management requirements.	Establish requirements for OCRWM Program information management activities consistent with HQ policies.	Develop plans and procedures to implement information management systems that meet DOE requirements.
		Manage Federal information technology resources including Federal computer and network security.	Implement a secure information management system that includes hardware, software configuration, and business applications. Manage information security practices for the contractors.
	 Conduct program reviews to monitor compliance with policies. 	Monitor contractor development and implementation of information management activities.	Perform self-assessments to evaluate performance and identify corrective actions to ensure effectiveness.
fanagement	Ensure cost effectiveness of information management approach.	Develop long-term planning and information technology capital investment strategy for OCRWM.	Support planning and assessment of information technology needs.
Information Systems and Data Management	Coordinate with DOE Chief Information Officer and other Federal agencies relative to information management activities.	Define OCRWM information management standards.	Support definition and implementation of OCRWM information management standards.
ation Syst	Ensure compliance with President's Management Agenda regarding e-gov.		Maintain program records and controlled documents.
Inform	the state of the s		Operate and maintain document production.
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17. External Communication and Stakeholder Involvement Programs

Includes communications with parties external to the program, including members of Congress; Federal, State, and local government; Indian tribes; the public; and other stakeholders. Includes outreach, public information, and stakeholder involvement as well as institutional and intergovernmental programs.

stake	stakeholder involvement as well as institutional and intergovernmental programs.				
	Headquarters	Yucca Mountain Project	M&O Contractor		
	 Serve as primary spokesperson for the program. Serve as primary interface between the Office of the Secretary and DOE Office of Public Affairs. 	 Implement RW-1 policies for project communications. Serve as spokesperson to local Nevada media on behalf of RW-1. Serve as spokesperson to Nevada counties and local Indian tribes. 	Support DOE external communication and stakeholder involvement programs in accordance with RW-I policies.		
		Advise OCRWM Director of emerging media issues.	Advise Project Manager of emerging media issues.		
SI .	 Establish roles and responsibilities for public affairs activities for HQ, Project Office, and M&O contractor. 	Report to RW-1 on interactions with media.	 Provide analysis to address media inquiries as directed. 		
Public Affairs		 Coordinate communications between HQ and project site public affairs activities. 			
P.	Establish policy guidelines for interactions with national and local media, intergovernmental groups, and stakeholders.	• Implement RW-1's media strategy and policies.			
		 Conduct public affairs activities such as meetings and development of press releases and displays/exhibits for the public. 	 Support public affairs activities such as meetings and development of press releases and displays/exhibits for the public. 		
	 Establish strategic plans and policies for addressing external communications and stakeholder involvement. 	Implement strategic plans and policies in accordance with budget and schedule.	 Support external communication and stakeholder involvement programs. 		
al al	Establish budget and priorities for intergovernmental activities.	Support intergovernmental activities in accordance with HQ guidance.	Support institutional and intergovernmental programs as directed.		
Institutional and Intergovernmental	Oversee awarding of financial assistance and cooperative agreements.	Review and report proposals for financial assistance and cooperative agreements.			
Insti Inter	Monitor and manage cooperative agreements.				
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18. Nuclear Waste Technical Review Board (NWTRB) Interactions

	*	and supporting activities associated w	
	Headquarters 💃 🗥	Yucca Mountain Project	M&O Contractor
	Establish policy and guidelines for interactions and resolutions of technical issues raised by the NWTRB.	Oversee contractor work activities associated with responding to NWTRB issues.	Support development of responses to NWTRB issues as directed by the YMP.
	Communicate policy and expectations.	Approve work prioritization on NWTRB issues proposed by contractor.	Prioritize work activities within the license application schedule based on risk analysis and ranking.
sight	 Serve as primary spokesperson to the NWTRB. 		
NWTRB Oversight	Establish schedule and priority for responses.	 Advise and alert Director of emerging issues and conditions. 	Provide technical analysis, engineering design, schedule data, and other information in response to Board inquiries as directed by the YMP.
	Interface with Secretary, Congress, and OMB on NWTRB issues.	Coordinate NWTRB meetings.	Support NWTRB meetings.
		Track progress on priorities.	
		 Monitor and report on Board- related activities. 	

	19. International Programs Covers international program initiatives that are undertaken as part of the OCRWM program mission.				
	Headquarters	Yucca Mountain Project	M&O Contractor		
International Interfaces	 Establish policy for international programs. Develop and manage an international program by developing requirements and representing OCRWM in international activities, policy development, and bilateral and multilateral agreements. Manage foreign visits, assignments, and travel. 	Support HQ international programs.	Support international programs.		