

Project Operating Plan

BACKGROUND

Recovery Act Project:	Oak Ridge Defense ORNL D&D Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002101
Recovery Act Bill Reference:	PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
Project Cost:	\$151,000,000
Budget Authority:	06049, FD.04.12.00.0 - \$151,000,000
Program Office:	Environmental Management (EM)
Recovery Program Plan:	EM - Defense
Management Office:	Stephen H. McCracken, Assistant Manager for Environmental Management, Oak Ridge Office, mccrackensh@oro.doe.gov J.T. Howell, ORO Recovery Project Manager, Oak Ridge Office, howelljt@oro.doe.gov

LEADS

Implementation:	Oak Ridge Office
Breakthrough:	N/A
Laboratory:	N/A

I. SUMMARY & OBJECTIVES

Summary:

This Recovery Act Project will demolish surplus contaminated facilities and remediate contaminated soil at the Oak Ridge National Laboratory, including:

- Complete high priority environmental cleanup projects, including:
 - Bethel Valley Burial Grounds (7 acres)
 - Provide for the hydraulic isolation (multi-layer cap) of two solid waste storage areas (SWSA 1 and SWSA 3). Additional actions include the removal and placement under the SWSA 3 cap of 26,000 cubic yards of hot spot soil contamination, scrap material from the Contractor's Landfill, and placement of a soil cover on the Former Waste Pile Area.

Bethel Valley Groundwater Early Actions (to include Melton Valley Monitoring Wells).

- Installation of a shallow groundwater collection system and collect and treat strontium-contaminated groundwater.
- Installation of groundwater extraction wells within Tank W1-A plume to contain and protect surface water bodies from contamination discharges.
- Install groundwater injection well to perform enhanced in-situ bioremediation of a TCE plume.

- Installation of a groundwater monitoring well to monitor and detect any potential off-site migration of contaminants from SWSA 3 and the Contractor's Landfill.
- Complete demolition and disposition of Buildings 3026 C&D (~20K square feet) wooden superstructure and hot cells and demolition preparations of Building 3038 (~8K square feet) at the Bethel Valley Isotope Facilities.
 - 3026 Wooden Superstructure - Stabilization of the hot cells to ensure their integrity during the wooden structure D&D; removal of legacy materials; abatement of hazardous materials, and demolition and disposal of the wooden superstructure.
 - 3026 Hot Cells – Demolish the Hot Cells to complete the 3026 facility D&D actions including removal and disposal of the hot cell contents and construction debris, removal of concrete to slab or grade, and decontamination of the slab.
 - 3038 - Removal and disposition of remaining legacy materials and preparation for facility D&D including abatement of hazardous materials, facility deactivation, and removal of remaining equipment.
- Complete demolition and disposition of surplus facilities (~35K square feet) in the ORNL Small Facilities project.
 - Complete the D&D of 11 facilities including the D&D and disposal of demolition debris. The facilities list is as follows: Radiological - 3085, 3085A, 3085B, 3098, 3117A, 3119, 3508, 3541, and 3550 ; Standard Industrial - 3592 and 3102
- Complete removal action at the Tank W1A project.
 - Remove Tank W1A (an underground tank located in the Oak Ridge National Laboratory Central Campus) and surrounding contaminated soils containing transuranic isotopes. This project also includes the packaging of the TRU soils for disposal at the Waste Isolation Pilot Project.

This Recovery Act work meets the following Department of Energy (DOE) and Environmental Management (EM) strategic themes and goals:

DOE Strategic Theme 4 – Environmental Responsibility – Protect the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.

DOE Strategic Goal 4.1 – Environmental Cleanup – Complete cleanup of the contaminated nuclear weapons manufacturing and testing sites across the United States.

DOE Strategic Theme 5 – Management Excellence - Enabling the Department’s mission through sound fiscal and program management.

DOE Strategic Goal 5.1 – Integrated Management – Institute an integrated business management approach throughout DOE with clear roles and responsibilities and accountability to include effective line management oversight by both Federal and contractor organizations.

EM Strategic Goals – Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities and maximize resources for cleanup. Fulfilling commitments to reduce risk and complete cleanup across all sites for future generations.

Public Benefits:

This Recovery Act Project will create and/or retain jobs in line with Recovery Act economic objectives. The Oak Ridge National Laboratory footprint will be reduced by 63,000 square feet, releasing valuable real estate for modernization of the Central Campus. In addition, 7 acres of solid waste burial grounds will be capped and 320 cubic meters of contaminated soils will be removed and disposed. The acceleration of the above demolition and remediation activities will reduce the Environmental Management liabilities.

Recovery Act Project Impacts:

This Recovery Act Project will eliminate on-site sources of contamination reducing the risk of on-going release of radioactive or other hazardous materials to the work force, public, and the environment. This includes demolition and disposal of ORNL’s highest risk excess facility and stabilization of other high risk excess facilities. This Recovery Act Project will create and/or retain jobs in line with Recovery Act economic objectives. The Oak Ridge National Laboratory footprint will be reduced by 63,000 square feet, releasing valuable real estate for modernization of the Central Campus. In addition, 7 acres of solid waste burial grounds will be capped and 320 cubic meters of contaminated soils will be removed and disposed. The acceleration of the above demolition and remediation activities will reduce the Environmental Management liabilities.

II. COST & SCHEDULE

Budget

Table 1a: Budget Implementation 12 Week Obligations (\$M)

	Week of ARRA Activities (Beginning Week of March 9)											
	1	2	3	4	5	6	7	8	9	10	11	12
ORNL Defense												

Table 1b: Budget Implementation 12 Week Expenditures (\$M)

	Week of ARRA Activities (Beginning Week of March 9)											
	1	2	3	4	5	6	7	8	9	10	11	12
ORNL Defense												

Table 2a: Budget Implementation Monthly & Yearly Obligations (\$M)

	FY 2009 Q3			FY 2009 Q4			FY 2010 Q1		
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
ORNL Defense									
	FY 2010 Q2			FY 2010 Q3			FY 2010 Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
	FY 2011 Q1			FY 2011 Q2			FY 2011 Q3 & Q4		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr – Sept		
	FY 2012		FY 2013		FY 2014		FY 2015		

Table 2b: Budget Implementation Monthly & Yearly Expenditures (\$M)

	FY 2009 Q3			FY 2009 Q4			FY 2010 Q1		
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
ORNL Defense									
	FY 2010 Q2			FY 2010 Q3			FY 2010 Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
	FY 2011 Q1			FY 2011 Q2			FY 2011 Q3 & Q4		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr – Sept		
	FY 2012		FY 2013		FY 2014		FY 2015		

The expenditure profile in Table 1b and 2b and the performance measures provided in Table 6 are based on the best available information about the Recovery Act requirements and pre-work authorization project definitions. Rough order of magnitude estimates have been developed to date for costs and the associated end-state performance measures. It is expected that as the detailed estimates and resource-loaded schedules (using Primavera 6.2) are developed, there will be changes to these estimates and performance measures.

This Recovery Act scope will be integrated into the Oak Ridge baseline, but tracked and reported separately and uniquely, using an approved change control process.

Table 3: Funds Returned and Offsetting Collections (\$M)

	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
N/A							

Indirect Costs:

This work will be performed by an existing Management and Integration contractor and facility and operating contractor utilizing an approved indirect rate structure, and by non-facility and operating contractors.

The Management and Integration contractor estimated rates are:
 FY 2009 15.5%, FY 2010 15.5%, and FY 2011 16.1%.

The facility and operating contractor estimated rates are:
 FY 2009 28.2%, FY 2010 27.8%, and FY 2011 27.8%.

The non-facility and operating contractor's costs are assumed to be all direct costs.

Additionally, all Oak Ridge contractor indirect rates are subject to an annual audit review and require final approval by the contracting officer.

Changes to Baseline Budget

Table 4: Changes to Baseline Budgets (\$M)

Changes to Baseline Budget	Increase/Decrease	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Project Acceleration	Increase							

Milestones:

Please see Table 6 below.

Table 5: Delivery Schedule for Capital Asset Projects

Program/OECM Milestone	Delivery (End) Date	Comments
Develop capital asset projects Integrated Project List	N/A	
Develop Parametric Performance Baseline (Individual Projects)	N/A	
If < \$100 M Perform IPR, > \$100 M Perform EIR (Individual Projects)	N/A	
Approve Performance Baseline	N/A	
Approve Start of Construction	N/A	
Approve Project Completion	N/A	

Note: No projects meet definition of capital asset.

III. PERFORMANCE

Performance Measures:

Performance measures provided in Table 6 are based on the best available information about Recovery Act requirements and pre-work authorization project definitions. Rough order of magnitude estimates have been developed to date for costs and the associated end-state performance measures. It is expected that there will be changes to the estimates and performance measures.

This Recovery Act scope will be integrated into the Oak Ridge baseline, but tracked and reported separately and uniquely, using an approved change control process.

Table 6: Project Performance Targets

Recovery Act Project Identification Code	2002101
Linkage To S-1 Priorities	Economic prosperity and national security and legacy (see Table 8)
Linkage to Current Program Goal (if applicable)	DOE Strategic Theme 4 – Environmental Responsibility – Protect the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production. DOE Strategic Goal 4.1 – Environmental Cleanup – Complete cleanup of the contaminated nuclear weapons manufacturing and testing sites across the United States. EM Strategic Goals - Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities and maximize resources for cleanup. Fulfilling commitments to reduce risk and complete cleanup across all sites for future generations.
Two-Year Outcome-Oriented Performance Measure	By the end of FY 2011: <ul style="list-style-type: none"> • Remove and dispose of 320 cubic meters contaminated soils. • Decrease foot print by 63,000 square feet. • Cap 7 acres of solid waste burial grounds. • Remove and dispose legacy materials from ~8,000 square feet.
First Year Performance Target	By the end of FY 2009 initiate procurement actions and/or mobilize work force to: <ul style="list-style-type: none"> • Remove and dispose of contaminated soils. • Reduce footprint. • Cap solid waste burial grounds.

	<ul style="list-style-type: none"> Remove and dispose legacy materials.
Q3 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> 3026 Wooden Superstructure - Submit Waste Handling Plan to Core Team for Review 3026 Wooden Superstructure - Start Facility Stabilization 3026 Wooden Superstructure - Award Demolition Subcontract 3026 Wooden Superstructure - Submit Final Waste Handling Plan to Regulators Burial Grounds - Post synopsis at FBO/Recovery.gov Burial Grounds - Issue Remedial Design Report /Remedial Action Work Plan to Core Team for Review. Bethel Valley Ground Water - Issue Design to Core Team for Review. Small Facilities - Post synopsis at FBO/Recovery.gov Begin Tank W1A Request for proposal Preparation
Q4 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> 3026 Wooden Superstructure - Start Facility Demolition 3026 Wooden Superstructure - Regulators Approve Waste Handling Plan 3026 Wooden Superstructure - Complete Facility Stabilization Burial Grounds - Post Request for proposal on DOE website Burial Grounds - Submit Remedial Design Report /Remedial Action Work Plan to Regulators for Approval Burial Grounds - Award instrument after Signature Burial Grounds - Regulator Approve Remedial Design Report /Remedial Action Work Plan Bethel Valley Ground Water - Submit Design to DOE for Regulators Approval Bethel Valley Ground Water - Submit Final Waste Handling Plan to Regulators for Approval Bethel Valley Ground Water - Regulators Approve Waste Handling Plan Bethel Valley Ground Water - Mobilization Small Facilities - Post Request for Proposal on DOE website Small Facilities - Award instrument after Signature Tank W1A - Award Subcontract.
Second Year Performance Target	By the end of FY 2010:

	<ul style="list-style-type: none"> • Complete demolition and disposal of 3026 Wooden Superstructure. • Continue removal and disposal of contaminated soils. • Continue footprint reduction. • Continue capping solid waste burial grounds. • Continue removal and disposal of legacy materials.
Q1 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • 3026/3038 - Submit Draft 3038 Safety Basis Document to DOE Review/Approval. • Burial Grounds - Mobilization Complete. • Tank W1A - Initiate Safety Basis Documentation Submittals.
Q2 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • 3026 Wooden Superstructure - Complete Facility Demolition. • 3026/3038 - Issue 3038 Safety Basis Document to DOE for HQ Review/Approval. • 3026/3038 - Submit Waste Handling Plan to Core Team for Review. • Bethel Valley Ground Water - Complete Ground Water Source Action.
Q3 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • 3026/3038 - Regulators Approve Waste Handling Plan. • Burial Grounds - Complete Hot Spots Soil Excavation. • Tank W1A - Initiate and complete erection of Tank W1A weather enclosure. • Sentinel Well - Complete Melton Valley Well Installation.
Q4 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • 3026/3038 - 3038 Readiness Assessment. • Bethel Valley Ground Water - Complete Remedial Action - East End Ground Water. • Small Facilities - Submit Waste Handling Plan to Core Team for Review - Northeast Corner. • Tank W1A - Complete Tank W1A Safety Basis Documentation Submittals. • Tank W1A - Complete Tank W1A source Removal Action Operational Readiness Review
Third Year Performance Target	<p>By the end of FY 2011:</p> <ul style="list-style-type: none"> • Complete removal and disposal of 320 cubic meters contaminated soils. • Complete footprint reduction by 63,000 square feet. • Complete capping of 7 acres of solid waste burial grounds. • Complete removal and disposal of legacy materials from ~8,000 square feet.

<p>Q1 - Project-Level Quarterly Performance Milestone(s)</p>	<ul style="list-style-type: none"> • Burial Grounds – Solid Waste Storage Area 1 Remedial Action Complete. • Small Facilities - Submit Northeast Corner Waste Handling Plan to Regulators for Approval. • Small Facilities - Regulators Approve Northeast Corner Waste Handling Plan. • Tank W1A - Complete Tank W1A TRU Waste removal and packaging.
<p>Q2 - Project-Level Quarterly Performance Milestone(s)</p>	<ul style="list-style-type: none"> • Burial Grounds - Remedial Action Complete - Solid Waste Storage Area 3. • Bethel Valley Ground Water - Complete West End Ground Water Removal Action. • Tank W1A - Complete Tank W1A Low Level Waste disposition to Nevada Test Site.
<p>Q3 - Project-Level Quarterly Performance Milestone(s)</p>	<ul style="list-style-type: none"> • 3026/3038 - Complete Demo 3026 C/D Hot Cells. • Burial Grounds - Demobilization from Solid Waste Storage Area 3. • Burial Grounds/Bethel Valley Ground Water - Submit Solid Waste Storage Area 1 and 3 PCCR to Regulators for Review. • Bethel Valley Ground Water - Complete Removal Action - Shallow Ground Water. • Bethel Valley Ground Water - Demobilization. • Small Facilities - Corrective Measures/Remedial Action Complete.
<p>Q4 - Project-Level Quarterly Performance Milestone(s)</p>	<ul style="list-style-type: none"> • 3026/3038 - Submit 3026/3028/2026 Phased Construction Completion Report to Core Team for Review. • 3026/3038 - Complete 3038 Legacy Material Disposition. • Burial Grounds/Bethel Valley Ground Water – Regulators Approve Solid Waste Storage Area 1 and 3 Phased Construction Completion Report. • Tank W1A - Complete preparation of Tank W1A Removal Action Report. • Tank W1A - Complete Tank W1A TRU Waste disposition at Waste Isolation Pilot Plant.

National Strategic Benefits

Table 7: National Strategic Benefits

1. N/A
2. N/A

IV. MANAGEMENT

Secretarial-level Items

The initiative outlined in this plan support the following Secretary of Energy’s Priorities:

- Economic Prosperity
- National Security and Legacy

Table 8: Secretary's Priorities

Secretary’s Priorities	Project Impacts (Qualitative)	Project Impacts (Quantitative)
Science and Discovery		
Clean, Secure Energy		
Economic Prosperity	Jobs	Create and/or preserve jobs
National Security and Legacy	Removal of legacy material and remediation of high risk contaminated sites and facilities at Oak Ridge National Laboratory. Demolish contaminated facilities.	Remove and dispose of 320 cubic meters contaminated soils. Decrease foot print by 63,000 square feet. Capping 7 acres of solid waste burial grounds. Remove and dispose legacy materials from ~8,000 square feet.
Climate Change		

Collaboration and Coordination:

The following external partners will play a vital role in the successful completion of the Recovery Act scope:

- Regulatory
 - Environmental Protection Agency, Region IV
 - Tennessee Department of Environmental Conservation
 - Tennessee Department of Transportation
 - Defense Nuclear Facilities Safety Board
- License Disposal Sites
 - Waste Isolation Pilot Plant, New Mexico
 - Nevada Test Site

- Energy Solutions, Utah
- Other Available Commercial Facilities
- Other Stakeholders
 - Oak Ridge Site Specific Advisory Board

Federal Infrastructure Investments:

There are no infrastructure investment project activities associated with this Recovery Act Project.

However, ancillary benefits will be achieved through the elimination of facilities resulting in reduced electrical power consumption and corresponding reduction of greenhouse gas emissions. Reuse/Recycle of excess materials could result in reduced consumption in fossil fuels required to process raw materials.

These facilities contain hazardous or radiological material. Accelerating the removal and proper disposal reduces risk of releases of this material to the environment

Line Management:

Oak Ridge will use existing business and project management systems and practices to effectively monitor and report on the Recovery Act projects, including:

- Fully implement all Recovery Act transparency and reporting requirements through modifications to the contract that will fund this Recovery Act Project.
- Continue applying project management principles to Recovery Act Project execution, including reviewing and validating Environmental Management project cost and schedule baselines consistent with the Department of Energy’s Order 413.3A and identifying project risks and strategies for managing them.
- Continue monitoring of the contractors’ Earned Value Management System reports to ensure the Recovery Act Project is on track and, if not or if trends are in a negative direction, to develop and implement corrective actions.
- Use an Integrated Project Team of Federal and contractor staff with project knowledge and subject matter expertise essential to the successful planning and execution of the project – including safety, risk management, engineering, quality assurance, contracts administration, and project controls.
- Conduct periodic project reviews to inform senior management of the status of the Recovery Act projects.

Needs from Staff Offices:

- Timely business clearance approval or waiver from Headquarters for large procurement actions.
- Priority execution of security clearance requests.

1) Human Capital

Oak Ridge is committed to ensuring the safety of workers and the public during the accomplishment of the additional work under the Recovery Act, and additional measures and personnel are required beyond those currently in place. Accordingly, the current Environmental Management contractor (i.e., Bechtel Jacobs Company LLC) who will be performing work funded under Recovery Act has an existing Safety Assurance Plan. The Oak Ridge Office also plans to utilize Indefinite Delivery Indefinite Quantity contracts to perform some of the Recovery Act funded work. Since these task orders are not in place at this time, safety assurance plans do not exist for these work items. However, as we develop requirements for the Indefinite Delivery Indefinite Quantity contracts, we will include the development of Safety Assurance Plans, as one of these requirements.

We are in the process of completing our staffing analysis to ensure we are able to perform adequate oversight of this work to ensure the safety of workers and the public. Additional requirements for Facility Representatives, Safety System Subject Matter Experts, project control engineers/specialists, estimators, and schedulers will be determined and provided as necessary through Technical Support Services Contract(s).

Table 9: Information on Hiring Under the Recovery Act

# & Type of Positions (Title, Series and Grade)	Location (HQ or Field – w/location)	Federal or Contractor	Timeframe (1-6mos; 6+mos; other; specify date needed if possible)
Contract Specialist (2)	Oak Ridge	Federal	FY 09 to FY 11
Accountant (1)	Oak Ridge	Federal	FY 09 to FY 11
Internal Auditor (1)	Oak Ridge	Federal	FY 09 to FY 11

Note: These positions represent the total additional requirements for all Oak Ridge Recovery Act projects and are therefore not included in other Oak Ridge Project Operating Plans.