

# Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Oak Ridge**

Site Summary Level: **Paducah Gaseous Diffusion Plant**

Project **OR-553 / Paducah Waste Management**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0145**

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## General Project Information

### Project Description Narratives

#### Purpose, Scope, and Technical Approach:

##### Purpose:

The Paducah Gaseous Diffusion Plant (PAD) is an active uranium enrichment facility constructed in the early 1950s to provide enriched uranium to commercial reactors and defense programs. Since beginning operations, PAD has generated, stored, and disposed of hazardous, non-hazardous, radioactive, PCB, and mixed wastes. Effective July 1, 1993, in compliance with the Energy Policy Act of 1992, the Department of Energy (DOE) leased the plant production facilities to the United States Energy Corporation (USEC). As detailed in the lease agreement, USEC is responsible for wastes generated as the result of operations after July 1, 1993, except for certain legacy and PCB wastes. DOE is responsible for these legacy and PCB wastes as well as all wastes generated before the lease and for all wastes currently being generated by the Environmental Management and Enrichment Facilities activities at PAD. The purpose of the PAD Waste Project is to effectively manage (store, treat, and dispose) the PAD wastes designated the responsibility of DOE in a safe, economical, and compliant manner.

##### Scope:

The scope of PAD Waste Project consists of the treatment, storage, and disposal of 4,176 cu. meters of mixed (RCRA/LLW, TSCA/LLW, RCRA/TSCA/LLW) wastes; 6,366 cu. meters of LLW; 4.6 cu. meters of TRU waste; and large unquantified inventories of DOE material stored in currently released DOE Material Storage Areas. The program is subdivided into five work breakdown structures (WBS) elements: MLLW, LLW, Sanitary/Industrial Waste, TRU Waste, and Hazardous Waste. Major components of these elements are storage, treatment, and disposal of legacy waste, and facilities improvements. Activities include the following:

##### Treatment

- Characterize approximately 3,000 cubic meters of MLLW to meet off-site disposal facilities Waste Acceptance Criteria.
- Develop treatment formulas by conducting treatability studies, and treat 500 cubic meters of MLLW to meet RCRA limits and Site Treatment Plan Requirements.
- Support the treatment of 865 cubic meters of waste by the Vortec Ex-Situ Vitrification demonstration.
- Characterize approximately 880 cubic meters of LLW and PCB Waste to meet TCLP FFCA requirements and off-site disposal facilities Waste Acceptance Criteria.
- Treat approximately 6.5 cubic meters of radioactive pyrophoric uranium chips.
- Treat 4.6 m<sup>3</sup> of liquid (2.9 m<sup>3</sup>) and solid (1.7 m<sup>3</sup>) TRU waste. This waste requires characterization, development of treatment formula by conducting treatability studies, and treatment of the waste to meet RCRA limits and the Waste Isolation Pilot Plant WAC.
- Treat and discharge approximately 5000 gallons per year of organic contaminated wastewater through the year 2003.

##### Storage

- Perform interim waste storage activities for legacy waste (MLLW, LLW, TRU, PCB and wastewater) that meets regulatory and DOE requirements.
- Perform routine maintenance.

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## **Project Description Narratives**

### Disposal

- Ship all legacy waste (MLLW, LLW, TRU, and PCB) off-site for disposal at approved disposal facilities.
- To dispose in the on-site landfill up to 50% of current low-level waste in storage.
- Provide project management support to complete the scrap material tasks by the end of FY 2003 to meet the FFA requirements.
- To operate the Solid Waste Landfill (SWL) and maintain the closed inert and residential landfills in compliance with operating permits through FY 2025.
- To operate the CERCLA disposal cell from FY 2015-2025, once D&D of the GDP is initiated.
- Shipment of 11.7 m3 treated TRU waste to the Oak Ridge site by FY 2005. The PAD waste will be included in Oak Ridge TRU disposal shipments to WIPP.
- Ship approximately 2500 legacy PCB capacitors and 13 legacy transformers off-site for disposal.

### Facilities Improvements

- Complete RCRA closures of four permitted facilities after the completion of Plant D&D.
- Complete fire upgrades at two permitted facilities, roof replacement at all MLLW facilities, and OSHA upgrades at waste storage facilities, as required.
- To connect SWL cells 3-5 to the leachate collection system.
- To design and construct five new landfill cells.
- To complete closure of SWL cells 1-10.

The current scope does not account for additional remediation, wastes, or S&M activities associated with actual D&D of the Gaseous Diffusion Plant once the plant ceases operation. For the purpose of this subproject, it is assumed the GDP continues to operate. When a more definitive schedule is developed for D&D of the GDP, the scope under this PBS will be revised to account for the additional work.

### Technical Approach:

#### TECHNICAL PROVEN APPROACH/STRATEGY

- Proven treatment and disposal technologies will be utilized for MLLW, LLW, TRU, and PCB waste except for the Vortec demonstration.
- Subcontractors will be utilized to complete characterization, treatment, storage, and disposal of Legacy Waste (MLLW, LLW, TRU, PCB and wastewater).
- Waste will be treated and/or disposed per the risk-based prioritization.
- Use approved disposal facilities for legacy waste.
- LLW disposal must be completed in a timely manner to reduce mortgage costs, particularly for waste in outdoor storage.
- Subcontractors will be utilized to perform the waste operations tasks.
- Construction subcontractors will be utilized to perform the facility improvements.
- Waste will be treated and/or disposed per the risk-based prioritization.
- Existing wastewater treatment equipment will be capable of treating the water.
- Proven radiological decontamination methods will be used to decontaminate PCB capacitors and transformers prior to off-site shipment.

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## Project Description Narratives

### Project Status in FY 2006:

- Complete the treatment of all legacy MLLW.
- Complete the Vortec Vitrification demonstration.
- Complete the disposal of all currently stored PCB capacitors and transformers.
- Complete the treatment and shipment of TRU waste.
- Continue the treatment and disposal of newly generated MLLW per regulatory requirements.
- All generators will be responsible for funding characterization, storage, treatment, and disposal of their waste.

### Post-2006 Project Scope:

- The disposal of all legacy wastes (LLW and MLLW) by FY 2012.
- Continue to operate waste storage facilities and solid waste landfill to support the D&D of the closed Gaseous Diffusion Plant.
- All generators will be responsible for funding characterization, storage, treatment, and disposal of their wastes.

### Project End State

- Legacy waste will be disposed and landfills and storage facilities are transferred to USEC and operated in support to the D&D of the GDP.

### Cost Baseline Comments:

#### Method of Accomplishment:

- Subcontractors will be utilized to perform the treatment, storage, and disposal of legacy waste. Construction subcontractors will be utilized to perform facility improvements.

#### Estimating Type Approach:

#### Treatment:

- Historical TCLP FFCA characterizations cost estimates were used for waste characterization.
- Fiscal Year Baseline (FYB) estimates were used for the characterization and treatability studies for liquid and solid TRU waste.
- Historical treatment costs from the C-746-Q high-rad acid waste treatment were used for the treatment of liquid and solid TRU waste.
- Historical wastewater treatment costs were used for the treatment and discharge of 5,000 gallons per year of organic contaminated wastewater.
- Fiscal Year Baseline (FYB) cost estimates were used for the treatment of MLLW.

#### Storage:

- Historical legacy waste storage costs were used to estimate interim storage of MLLW, LLW, TRU, PCB, and wastewater.

#### Disposal:

- Historical landfill operations cost estimates were used for landfill and CERCLA disposal cell operations.
- Historical cost estimates was used for the disposal of MLLW.
- Fiscal Year Baseline cost estimates for uranium precipitate disposal was used for LLW disposal.

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## Project Description Narratives

- The Army's COE LLW disposal costs from their Envirocare contract was used for LLW disposal.
- Historical wastewater disposal and solid waste disposals cost estimates were used to estimate for FY 2000-2024.
- Historical landfill construction and closure cost estimates were used to estimate construction and closure of landfill cells.
- Historical PCB capacitors cost estimates were used for the decontamination and off-site disposal of ~2,500 PCB capacitors and 13 PCB transformers.

### Level of Confidence:

- The level of confidence for this task is -20% to + 30%.

### Safety & Health Hazards:

The scope of this project consists of the treatment, storage, and/or disposal of 4,176 cu. meters of mixed (RCRA/LLW, TSCA/LLW and/or TSCA/RCRA/LLW) waste; 6,366 cu. meters of LLW; 4.6 cu. meters of TRU waste; and a large unquantified inventory of DOE material stored in currently released DOE Material Storage Areas. Quality control, quality assurance, and operational measures are necessary to ensure wastes are accounted for and confined, and to minimize potential risk to workers, the public, and the environment. Without the treatment/ disposal portion of this program, wastes would persist and pose a risk to the public, workers, and the environment. Risks to the public are moderate, whereas risks to the workers and the environment are high. These risks are associated with the legacy waste (in storage > 10 years) as well as the ongoing operations of the program. Once the program reaches a steady state, risks will remain as a function of base operations.

Under the current Budget Cases, waste disposal is delayed from FY 2000 to FY 2008. This will result in wastes being stored on-site longer, which will increase the time frame available for industrial worker exposure. Also, drums will likely deteriorate and may result in new releases to the environment.

### Safety & Health Work Performance:

Before a subproject begins, several activities must be completed that demonstrate that all involved in the project have completed rigorous health and safety reviews and that all potential hazards of doing the work have been identified. The routine activities in WM are conducted in accordance with standard operating procedures, activity hazard analyses, and Integrated Safety Management plans. Non-routine work will require a readiness assessment as necessary to ensure complete health, safety, and environmental reviews prior to work start. This assessment is conducted by people, experienced in similar kinds of work, with the right to examine all aspects of a project about to commence, and require that the project team provide documented evidence that any applicable requirements of the job have been met.

### PBS Comments:

### Baseline Validation Narrative:

The Oak Ridge Operations Office Environmental Management Life Cycle Baseline (LCB) was submitted by the Managing and Integrating Contractor, Bechtel Jacobs Company LLC, to DOE-ORO on April 1, 1999. The final draft LCB will be submitted to DOE-ORO on June 1, 1999 after formal receipt and incorporation of comments. A validation of the baseline is in process using an independent contractor to DOE-ORO. The validation will be ongoing until complete and the final validation report is scheduled to be issued on June 25, 1999.

## General PBS Information

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## General PBS Information

**Project Validated?** **Date Validated:**  
**Has Headquarters reviewed and approved project?** No  
**Date Project was Added:** 3/10/1999  
**Baseline Submission Date:** 7/1/1999  
**FEDPLAN Project?** Yes

<b>Drivers:</b>	<b>CERCLA</b>	<b>RCRA</b>	<b>DNFSB</b>	<b>AEA</b>	<b>UMTRCA</b>	<b>State</b>	<b>DOE Orders</b>	<b>Other</b>
	Y	Y	N	N	N	Y	Y	N

## Project Identification Information

**DOE Project Manager:** Myrna Redfield  
**DOE Project Manager Phone Number:** 502-441-6815  
**DOE Project Manager Fax Number:** 502-441-6801  
**DOE Project Manager e-mail address:** redfieldme@ornl.gov  
**Is this a High Visibility Project (Y/N):**

## Planning Section

### Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	150,065	93,743	243,808	21,718	21,261	17,598	16,041	15,112	17,222	17,400	16,572	8,878	10,388	13,367	11,810
PBS Baseline (constant 1999 dollars)	143,102	74,900	218,002	21,718	21,261	17,598	16,041	15,112	16,868	16,692	15,570	8,170	9,363	11,800	10,211
PBS EM Baseline (current year dollars)	150,065	93,743	243,808	21,718	21,261	17,598	16,041	15,112	17,222	17,400	16,572	8,878	10,388	13,367	11,810

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## Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006	
	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS EM Baseline (constant 1999 dollars)	143,102	74,900	218,002	21,718	21,261	17,598	16,041	15,112	16,868	16,692	15,570	8,170	9,363	11,800	10,211	
PBS Baseline (current year dollars)	13,191	22,934	15,043	13,543	29,032	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	11,170	19,022	12,220	10,775	21,713	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	13,191	22,934	15,043	13,543	29,032	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	11,170	19,022	12,220	10,775	21,713	0	0	0	0	0	0	0	0	0	0	0

## Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
0.00%	0.00%	0.00%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

## Project Reconciliation

**Project Completion Date Changes:**

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## Project Reconciliation

Previously Projected End Date of Project:  
 Current Projected End Date of Project: 9/30/2012  
 Explanation of Project Completion Date Difference (if applicable):

## Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	Actual 1997 Cost:	21,261	Actual 1998 Cost:	16,041
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	-37,302	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):		-1,007
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	-38,309			

## Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):		
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
<b>Subtotal:</b>	-38,309	
<b>Additional Amount to Reconcile (+):</b>	216,995	
<b>Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):</b>	<b>178,686</b>	

## Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
LLW TCLP FFCA WASTESTREAM CHARACTERIZATION TO EPA (D)	OR553-001		12/31/2000	12/31/2000			Y				
MLLW STP Appendix 1A Rpt	OR553-002		12/31/1999	12/31/1999			Y				

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Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
MLLW STP Qtr Rpt	OR553-003		10/31/1999	10/31/1999			Y				
MLLW STP Qtr Rpt	553-4		1/31/2000	1/31/2000			Y				
MLLW PADUCAH STP ANNUAL REPORT	OR553-005		3/31/2000	3/31/2000			Y				
MLLW STP Wst Minimization Pollution Prevention Rpt	OR553-006		3/31/2000	3/31/2000			Y				
MLLW STP Qtr Rpt	OR553-007		4/30/2000	4/30/2000			Y				
MLLW STP Qtr Rpt	OR553-008		7/31/2000	7/31/2000			Y				
MLLW STP Appendix 1A Rpt	OR553-009		12/31/2000	12/31/2000			Y				
MLLW STP Qtr Rpt	OR553-010		10/31/2000	10/31/2000			Y				
MLLW STP Qtr Rpt	OR553-011		1/31/2001	1/31/2001			Y				
MLLW PADUCAH STP ANNUAL REPORT	OR553-012		3/31/2001	3/31/2001			Y				
MLLW STP Wst Minimization Pollution Prevention Rpt	OR553-013		3/31/2001	3/31/2001			Y				
MLLW STP Qtr Rpt	OR553-014		4/30/2001	4/30/2001			Y				
MLLW STP Qtr Rpt	OR553-015		7/31/2001	7/31/2001			Y				
MLLW STP Appendix 1A Rpt	OR553-016		12/31/2001	12/31/2001			Y				
Sanitary Waste Qtr Rpt	OR553-017		10/15/1999	10/15/1999			Y				
Sanitary Waste Qtr Rpt	OR553-018		1/15/2000	1/15/2000			Y				
Sanitary Waste Qtr Rpt	OR553-019		4/15/2000	4/15/2000			Y				
Sanitary Waste Annual Survey	OR553-020		6/30/2000	6/30/2000			Y				
Sanitary Waste Qtr Rpt	OR553-021		7/15/2000	7/15/2000			Y				
Sanitary Waste Qtr Rpt	OR553-022		10/15/2000	10/15/2000			Y				
Sanitary Waste Qtr Rpt	OR553-023		1/15/2001	1/15/2001			Y				

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## Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Sanitary Waste Qtr Rpt	OR553-024		4/15/2001	4/15/2001			Y				
Sanitary Waste Annual Survey	OR553-025		6/30/2001	6/30/2001			Y				
Sanitary Waste Qtr Rpt	OR553-026		7/15/2001	7/15/2001			Y				
Paducah Waste Management PBS Project Start	OR553-027		10/1/1996								
Paducah Waste Management PBS Project Complete	OR553-028		9/30/2012								
Paducah Waste Management Mission Completion	OR553-029		9/30/2012								

## Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
LLW TCLP FFCA WASTESTREAM CHARACTERIZATION TO EPA (D)	OR553-001										LLW TCLP FFCA Wastestream Characterization to regulators
MLLW STP Appendix 1A Rpt	OR553-002										MLLW STP Appendix 1A Rpt to regulators
MLLW STP Qtr Rpt	OR553-003										MLLW STP Qtr Rpt to regulators
MLLW STP Qtr Rpt	553-4										MLLW STP Qtr Rpt to regulators
MLLW PADUCAH STP ANNUAL REPORT	OR553-005										MLLW STP Annual Rpt to regulators
MLLW STP Wst Minimization Pollution Prevention Rpt	OR553-006										MLLW STP Wst Minimization Pollutin Prevention Rpt to regulators
MLLW STP Qtr Rpt	OR553-007										MLLW STP Qtr Rpt to regulators
MLLW STP Qtr Rpt	OR553-008										MLLW STP Qtr Rpt to regulators
MLLW STP Appendix 1A Rpt	OR553-009										MLLW STP Appendix 1A Rpt to regulators

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## Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
MLLW STP Qtr Rpt	OR553-010										MLLW STP Qtr Rpt to regulators
MLLW STP Qtr Rpt	OR553-011										MLLW STP Qtr Rpt to regulators
MLLW PADUCAH STP ANNUAL REPORT	OR553-012										MLLW STP Annual Rpt to regulators
MLLW STP Wst Minimization Pollution Prevention Rpt	OR553-013										MLLW STP Wst Minimization Pollution Prevention Rpt to regulators
MLLW STP Qtr Rpt	OR553-014										MLLW STP QTR Rpt to regulators
MLLW STP Qtr Rpt	OR553-015										MLLW STP Qtr Rpt to regulators
MLLW STP Appendix 1A Rpt	OR553-016										MLLW STP Appendix 1A Rpt to regulators
Sanitary Waste Qtr Rpt	OR553-017										Sanitary Waste Qtr Rpt to regulators
Sanitary Waste Qtr Rpt	OR553-018										Sanitary Waste Qtr Rpt to regulators
Sanitary Waste Qtr Rpt	OR553-019										Sanitary Waste Qtr Rpt to regulators
Sanitary Waste Annual Survey	OR553-020										Sanitary Waste Annual Survey to regulators
Sanitary Waste Qtr Rpt	OR553-021										Sanitary Waste Qtr Rpt
Sanitary Waste Qtr Rpt	OR553-022										Sanitary Waste Qtr Rpt to regulators
Sanitary Waste Qtr Rpt	OR553-023										Sanitary Waste Qtr Rpt to regulators
Sanitary Waste Qtr Rpt	OR553-024										Sanitary Waste Qtr Rpt to regulators
Sanitary Waste Annual Survey	OR553-025										Sanitary Waste Annual Survey to regulators
Sanitary Waste Qtr Rpt	OR553-026										Sanitary Waste Qtr Rpt to regulators
Paducah Waste Management PBS Project Start	OR553-027				Y						Waste Management PBS Project Start
Paducah Waste Management PBS	OR553-028					Y					Waste Management PBS Project

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## Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Project Complete											Complete
Paducah Waste Management Mission Completion	OR553-029					Y					

## Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
<b>RS</b>														
Assess.	NR	0.00	0.00	0.00	6.00									
<b>RS</b>														
Cleanup	NR	0.00	0.00	0.00	6.00									
<b>TRU</b>														
Treatment	M3	5.60	0.00	5.60	0.00		0.00	1.00	0.00	0.00	0.00	0.00	0.00	4.60
<b>TRU</b>														
Storage	M3							4.60	4.60	4.60	4.60	4.60	4.60	11.70
<b>MLLW</b>														
Treatment	M3	671.00	0.00	671.00	0.00		0.00	0.00	11.00	39.00	489.00	35.00	35.00	32.00
<b>MLLW</b>														
Storage	M3							4,176.00	4,097.50	3,983.00	3,942.50	3,926.00	3,896.00	3,942.00
<b>MLLW</b>														
On-Site Disp.	M3	2.00	0.00	2.00	0.00		0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00
<b>MLLW</b>														
Comm. Disp.	M3	216.00	4,603.00	4,819.00	0.00		0.00	28.00	21.00	28.00	40.00	15.00	15.00	29.00

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Date of Dataset: **9/20/1999**

# Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Oak Ridge**

Print Date: **3/9/2000**

Site Summary Level: **Paducah Gaseous Diffusion Plant**

HQ ID: **0145**

Project **OR-553 / Paducah Waste Management**

## Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
<b>MLLW</b>														
Ship to DOE Disp.	M3	0.00	0.00	0.00	0.00		0.00							
<b>LLW</b>														
Treatment	M3	427.00	0.00	427.00	0.00		0.00	0.00	7.00	0.00	420.00			
<b>LLW</b>														
Storage	M3							66,486.00	66,487.00	66,814.00	44,350.00	21,827.00	7,457.00	7,537.00
<b>LLW</b>														
On-Site Disp.	M3	4,654.00	1,910.00	6,564.00	0.00		0.00	1,710.00	620.00	396.00	341.00	343.00	311.00	311.00
<b>LLW</b>														
Comm. Disp.	M3	200.00	5,319.00	5,519.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>LLW</b>														
Ship to DOE Disp.	M3	104.00	0.00	104.00	0.00		0.00	104.00	0.00					
Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035	
<b>RS</b>														
Assess.	NR													
<b>RS</b>														
Cleanup	NR													
<b>TRU</b>														
Treatment	M3	4.60	0.00	0.00	0.00									
<b>TRU</b>														
Storage	M3	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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# Project Baseline Summary Report

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Operations/Field Office: **Oak Ridge**

Print Date: **3/9/2000**

Site Summary Level: **Paducah Gaseous Diffusion Plant**

HQ ID: **0145**

Project **OR-553 / Paducah Waste Management**

Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035
<b>MLLW</b>													
<b>Treatment</b>	M3	32.00	30.00	0.00									
<b>MLLW</b>													
<b>Storage</b>	M3	3,942.00	3,997.00	4,081.00	3,659.00	2,452.00	928.00	937.00	65.00	25.00	0.00	0.00	0.00
<b>MLLW</b>													
<b>On-Site Disp.</b>	M3	0.00											
<b>MLLW</b>													
<b>Comm. Disp.</b>	M3	29.00	20.00	20.00	451.00	1,236.00	1,553.00	20.00	1,017.00	185.00	141.00		
<b>MLLW</b>													
<b>Ship to DOE Disp.</b>	M3												
<b>LLW</b>													
<b>Treatment</b>	M3												
<b>LLW</b>													
<b>Storage</b>	M3	7,537.00	7,617.00	7,119.00	6,654.00	5,309.00	4,064.00	2,819.00	76.00	22.00	0.00	0.00	0.00
<b>LLW</b>													
<b>On-Site Disp.</b>	M3	311.00	311.00	311.00	400.00	400.00	400.00	400.00	270.00	15.00	25.00		
<b>LLW</b>													
<b>Comm. Disp.</b>	M3	0.00	0.00	200.00	90.00	950.00	850.00	850.00	2,498.00	64.00	17.00		
<b>LLW</b>													
<b>Ship to DOE Disp.</b>	M3												
Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total			
<b>RS</b>													
<b>Assess.</b>	NR									6.00			

# Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Oak Ridge**

Site Summary Level: **Paducah Gaseous Diffusion Plant**

Project **OR-553 / Paducah Waste Management**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0145**

Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total
<b>RS</b>										
<b>Cleanup</b>	NR									6.00
<b>TRU</b>										
<b>Treatment</b>	M3									4.60
<b>TRU</b>										
<b>Storage</b>	M3	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
<b>MLLW</b>										
<b>Treatment</b>	M3									673.00
<b>MLLW</b>										
<b>Storage</b>	M3	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
<b>MLLW</b>										
<b>On-Site Disp.</b>	M3									2.00
<b>MLLW</b>										
<b>Comm. Disp.</b>	M3									4,778.00
<b>MLLW</b>										
<b>Ship to DOE Disp.</b>	M3									21.00
<b>LLW</b>										
<b>Treatment</b>	M3									427.00
<b>LLW</b>										
<b>Storage</b>	M3	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
<b>LLW</b>										
<b>On-Site Disp.</b>	M3									4,782.00
<b>LLW</b>										
<b>Comm. Disp.</b>	M3									5,639.00

# Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Oak Ridge**

Print Date: **3/9/2000**

Site Summary Level: **Paducah Gaseous Diffusion Plant**

HQ ID: **0145**

Project **OR-553 / Paducah Waste Management**

Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total
<b>LLW</b>										
Ship to DOE Disp.	M3									0.00

## Release Sites

Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
PGDP	0679		RAIMS Unit #1926 \ C-746-A Hazardous and Mixed-Waste Storage Facility	Above Ground Material / Waste/Storage Yards and Pads			7/16/1991			7/16/1991		N		N
PGDP	0682		RAIMS Unit #1886 \ C-753-A TSCA Waste Storage Building	Above Ground Material / Waste/Storage Yards and Pads		2025	7/16/1991		2025	7/16/1991		N		Y
PGDP	0683		RAIMS Unit #1887 \ C-752-A ER Waste Storage Bldg.	Above Ground Material / Waste/Storage Yards and Pads		2025	7/16/1991		2025	7/16/1991		N		N
PGDP	0684		RAIMS Unit #1888 \ C-746-U Solid Waste Contained Landfill	Waste/Landfills		2025	7/16/1991		2025	7/16/1991		N		N
PGDP	0688		RAIMS Unit #1922 \ C-733 Hazardous Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads			7/16/1991			7/16/1991		N		N
PGDP	0691		RAIMS Unit #1924 \ C-746-Q Hazardous/Low-Level Mixed Waste Storage Bldg.	Above Ground Material / Waste/Storage Yards and Pads			7/16/1991			7/16/1991		N		N

## Technology Needs

Dataset Name: **FY 1999 Planning Data**

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Date of Dataset: **9/20/1999**

# Project Baseline Summary Report

Data Source: **EM CDB**  
 Operations/Field Office: **Oak Ridge**  
 Site Summary Level: **Paducah Gaseous Diffusion Plant**  
 Project **OR-553 / Paducah Waste Management**

Report Number: **GEN-01b**  
 Print Date: **3/9/2000**  
 HQ ID: **0145**

## Technology Needs

**Site Need Code:** ORWM-17b  
**Site Need Name:** Characterization of Heterogeneous Waste

**Focus Area Work Package ID:** MW-05

**Focus Area Work Package:** Payload Enhancement for Transporting TRU Waste within Restrictive Regulatory Limits

**Focus Area:** MWFA

**Agree with Technology Link:** Y

**Benefits (Cost, Risk Reduction, Both):** Both

### Technologies

	<u>Cost Savings (in thousands of dollars)</u>	<u>Range of Estimate</u>
Nondestructive Waste Assay Using Combined Thermal Epithermal Neutron Interrogation	0	
Characterization of Remote-Handled Waste Drums using High Speed Neutron Detectors	0	
Nondestructive Waste Assay Using Gamma-Ray Active and Passive Computed Tomography	0	
NDA of Boxes Containing TRU Waste	0	

**Site Need Code:** ORWM-23a  
**Site Need Name:** Treatment of Heterogeneous Waste

**Focus Area Work Package ID:**

**Focus Area Work Package:**

**Focus Area:**

**Agree with Technology Link:** Y

**Benefits (Cost, Risk Reduction, Both):** Both

### Technologies

Cost Savings (in thousands of dollars)      Range of Estimate