

# Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Pinellas Plant**

Project **AL025 / Pinellas Plant Environmental Restoration Project**

Report Number: **GEN-01b**

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

HQ ID: **0479**

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## General Project Information

### Project Description Narratives

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

Definition of Scope:

Remediation activities include:

(1) 4.5 Acre site includes ground water cleanup by conventional pump and treat and dual-phase vapor/water extraction. Airsparge bioremediation technique is being implemented through three horizontal wells installed at the bottom of the surficial aquifer.

(2) Northeast Site includes remediation activities using conventional pump and treat technology and possibly implementation of bioremediation.

(3) Building 100 and Old Drum Storage area requires remediation of the ground water beneath Building 100, the site's main structure, by pump and treat of ground water. Bioremediation will also be evaluated as a possible option.

(4) Wastewater Neutralization/Building 200 Area involves the cleanup of soil and ground water contaminated with arsenic by conventional pump and treat technology.

The 4.5 Acre Site cleanup is regulated by the State Contamination Site Cleanup Program. DOE is currently negotiating a consent agreement for this site. The remaining sites are regulated as solid waste management units under the Hazardous and Solid Waste Amendment (HSWA) portion of the plant's RCRA Part B permit.

Technical Approach:

4.5 Acre Site - Cleanup mandated by State of Florida and DOE. This property is owned by a private landowner. DOE pays an annual sum to lease the site while cleanup operations are ongoing.

Shallow surficial aquifer underlying site is contaminated with halogenated and aromatic hydrocarbons (VOCs).

Environmental restoration activities include ongoing ground water recovery and treatment operations and maintenance. Treatment operations do not require an air permit. In FY 1999, an interim action is being implemented to accelerate cleanup. This interim action is implementation of aerobic bioremediation to reduce contaminant levels. Large array of ground water monitoring wells are sampled weekly, monthly and quarterly for ground water quality.

Northeast Site - Cleanup mandated under RCRA HSWA Permit.

Shallow surficial aquifer underlying site is contaminated with halogenated and aromatic hydrocarbons (VOCs).

Environmental restoration activities include ongoing ground water recovery and treatment operations and maintenance. Treatment operations require air permit. Other interim actions are being reviewed to accelerate cleanup as well as remediate dense nonaqueous phase liquids in surficial aquifer.

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## **Project Description Narratives**

Large array of ground water monitoring wells are sampled weekly, monthly and quarterly for ground water quality.

Building 100 and Drum Storage Area - Cleanup mandated under RCRA HSWA Permit.

Shallow surficial aquifer underlying ten-acre Building 100 site is contaminated with halogenated and aromatic hydrocarbons (VOCs).

Environmental restoration activities include ongoing ground water recovery. Recovered effluent is sent to Northeast Site for treatment. Recovered effluent from Building 100 recovery wells is sent to the Northeast Site for treatment. Other interim actions are being evaluated as remediation alternatives for future implementation. Dense nonaqueous phase liquids are suspected in surficial aquifer. Large array of ground water monitoring wells are sampled quarterly for ground water quality.

Wastewater Neutralization Area (WWNA) and Building 200 - Cleanup mandated under RCRA HSWA Permit.

Arsenic concentrations in site soils and ground water are above background concentration levels.

Environmental restoration activities include ground water recovery through pump and treat. Recovered effluent is sent to Pinellas STAR Center WWNA for disposal. A laboratory leachability study on soil is being performed in FY 1999 to assist in selecting appropriate remediation technology. Ground water monitoring wells are sampled quarterly for ground water quality.

All sites - For FY 1999 and beyond, ground water cleanup and waste management, storage and disposal of ER generated waste will be accumulated on-site under generator status, transported by licensed haulers, and disposed of off-site at authorized facilities.

### **Project Status in FY 2006:**

Cleanup of the Northeast Site, Building 100 and Drum Storage area, and the Wastewater Neutralization Area/Building 200 will be ongoing in FY 2006. The 4.5 Acre Site will be complete.

### **Post-2006 Project Scope:**

Cleanup of the Northeast Site; Building 100 and Drum Storage area; and the Wastewater Neutralization Area/Building 200 will be completed in FY 2014.

### **Project End State**

The Site was sold to Pinellas County Industrial Council in 1995 with the DOE maintaining responsibility for cleanup of all ER Program sites previously identified. When site ground water can meet land use classification of "Industrial with unrestricted access", DOE's responsibilities will be completed. Estimated final activity complete in FY 2014. Cleanup levels are drinking water maximum concentration levels (MCLs) for the Clean Water Act and those of the State of Florida. If MCLs cannot be met it may be possible to apply "Technical Impracticability", but this will have to be demonstrated.

### **Cost Baseline Comments:**

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## Project Description Narratives

All environmental remediation projects are in the operation and maintenance (O&M) phase with the exception of the potential, full scale bio-remediation project at the 4.5 Acre Site, Northeast Site, and possibly the Building 100 area. Out years are escalated at 2.1% from FY 2001 through project completion of FY 2014. Escalation in FY 2000 is 2.7%.

### Safety & Health Hazards:

The hazards at the Pinellas STAR Center are from exposure to untreated contaminated ground water and in the operation of the treatment plants. The hazards to the public are low due to fences around and controlled access to the treatment plants. The hazards to the worker result from possible exposure to the contaminated ground water and from industrial hazards associated with the operation of the treatment plants. Environmental hazards at Pinellas STAR Center are associated with the untreated contaminated ground water. This will be reduced as the ground water systems are installed, maintained, and monitored.

### Safety & Health Work Performance:

Standard Operating Procedures are used as GJO proceeds with operations of ground water extraction wells and treatment plants. Industrial hygiene and industrial safety functional categories are necessary to perform this work in a safe manner. Industrial hygiene resources are used to provide protection to workers from chemical, biological, physical, and physiological hazards during the treatment of the contaminated ground water at the Pinellas STAR Center. Electrical/mechanical safety, lockout/tagout, platform and scaffolding usage, and construction safety are included in the resources necessary to protect workers from industrial hazards.

### PBS Comments:

Restoration of this site is a highly visible project because this is the first DOE facility to be sold to local government for reuse (commercial/economic development endeavors). Cleanup activities are essential for successful transfer of the property and final completion of the DOE mission at Pinellas. All cleanup activities are driven by a RCRA permit with compliance milestones.

### Baseline Validation Narrative:

Annually, the DOE-GJO conducts a review of the contractors` proposed task plan for the upcoming fiscal year. This review includes a bottoms-up analysis of scope, labor, and other direct charges which is presented by the project manager to a team comprised of contracting officers, contracting officers` representatives, other staff members, and management. During the development of the 2006 Plan, the DOE project and support staff work closely with the contractors regarding project direction. The planning document is then reviewed by various members of the DOE staff and forwarded to DOE-AL where a subsequent review takes place. DOE-GJO conducted an internal life-cycle baseline review in December 1998 for the Pinellas STAR Center ER.

## General PBS Information

**Project Validated?**

**Date Validated:**

**Has Headquarters reviewed and approved project?**

No

**Date Project was Added:**

12/1/1997

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## General PBS Information

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>
	N	Y	N	N	N	Y	N	N

## Project Identification Information

DOE Project Manager: Russel Edge

DOE Project Manager Phone Number: 970-248-6037

DOE Project Manager Fax Number: 970-248-6023

DOE Project Manager e-mail address: redge@doegjpo.com

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)	21,554	17,387	38,941	383	383	2,215	2,215	2,296	2,500	3,460	2,400	2,400	1,900	2,000	2,000	
PBS Baseline (constant 1999 dollars)	20,242	13,527	33,769	383	383	2,215	2,215	2,296	2,434	3,300	2,242	2,196	1,702	1,755	1,719	
PBS EM Baseline (current year dollars)	21,554	17,387	38,941	383	383	2,215	2,215	2,296	2,500	3,460	2,400	2,400	1,900	2,000	2,000	
PBS EM Baseline (constant 1999 dollars)	20,242	13,527	33,769	383	383	2,215	2,215	2,296	2,434	3,300	2,242	2,196	1,702	1,755	1,719	
	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011- 2015</b>	<b>2016- 2020</b>	<b>2021- 2025</b>	<b>2026- 2030</b>	<b>2031- 2035</b>	<b>2036- 2040</b>	<b>2041- 2045</b>	<b>2046- 2050</b>	<b>2051- 2055</b>	<b>2056- 2060</b>	<b>2061- 2065</b>	<b>2066- 2070</b>

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	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 Baseline (current year dollars)	2,008	2,050	2,093	2,136	9,100	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	1,690	1,690	1,690	1,690	6,767	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	2,008	2,050	2,093	2,136	9,100	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	1,690	1,690	1,690	1,690	6,767	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
	0.00%	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
	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
	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:

Previously Projected End Date of Project: 9/30/2014

Current Projected End Date of Project: 9/30/2014

Explanation of Project Completion Date Difference (if applicable):

Not applicable.

### Project Cost Estimates (in thousands of dollars)

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## Project Reconciliation

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	33,794	Actual 1997 Cost:	383	Actual 1998 Cost:	2,215
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	31,196	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			842
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	32,038				

## Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):	868	Decrease the analyte list, abandon wells, declassify sludge, implement a new technique
Cost Associated with New Scope (+):		
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
<b>Subtotal:</b>	<b>31,170</b>	
<b>Additional Amount to Reconcile (+):</b>	<b>1</b>	
<b>Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):</b>	<b>31,171</b>	

## Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Completion of cleanup of groundwater at 4 SWMUs	AL025-002		9/1/2014							Y	
End of Cleanup of groundwater at 4 SWMUs	AL025-003		9/1/2014								
O&M of 4.5 Acre Site treatment systems	AL-025-1		10/1/2000							Y	
O&M of Building 100 treatment system for ground water	AL-025-3		10/1/2012							Y	
O&M of Northeast Site treatment system for ground water	AL-025-2		10/1/2014							Y	
Project Mission Complete	PIPL-02		9/30/2014								

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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
Start of Cleanup of groundwater at 4 SWMUs	AL025-001		10/1/1997			10/1/1997					
Treatment of ground water at Wastewater Neutralization Site	AL-025-4		10/1/2002							Y	
Secretary of Energy mandates program			10/1/1984								
Mission Complete			9/30/2014								

## 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
Completion of cleanup of groundwater at 4 SWMUs	AL025-002						2	3	1		
End of Cleanup of groundwater at 4 SWMUs	AL025-003									Y	
O&M of 4.5 Acre Site treatment systems	AL-025-1									Y	
O&M of Building 100 treatment system for ground water	AL-025-3									Y	
O&M of Northeast Site treatment system for ground water	AL-025-2									Y	
Project Mission Complete	PIPL-02				Y						
Start of Cleanup of groundwater at 4 SWMUs	AL025-001						2	3	1		
Treatment of ground water at Wastewater Neutralization Site	AL-025-4									Y	
Secretary of Energy mandates program				Y							
Mission Complete						Y					Mission complete

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## 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
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**RS**

Assess.	NR	1.00	0.00	1.00	3.00		1.00	1.00						
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**RS**

Cleanup	NR	1.00	3.00	4.00								1.00		
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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
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**RS**

Assess.	NR												
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**RS**

Cleanup	NR								3.00				
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Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2065	Planned 2066 - 2070	Exceptions	Lifecycle Total
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**RS**

Assess.	NR									5.00
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**RS**

Cleanup	NR								1.00	5.00
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## 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
PIPL	0001		PIN-15 \ Northeast Site	Surface and Groundwater/Groundwater Plumes		2001	2/8/1995	2014	2014			N		N
PIPL	0002		PIN-20 \ 4.5 Acre Site	Surface and		2001	8/1/1997	2002	2002			N		N

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PIPL	0003		PIN-12/6 \ Building 100/Old Drum Storage Area	Groundwater/Groundwater Plumes Surface and Groundwater/Groundwater Plumes		2001	2/18/1995	2014	2014			N		N
PIPL	0004		PIN-18 \ Wastewater Neutralization Area/Building 200	Surface and Groundwater/Sediments	1998	1998	9/30/1998	2014	2014			N		N
PIPL	0006		DELETED	Surface and Groundwater/Groundwater Plumes		2001	2/1/1995					N		N