Office of River Protection Look Back/Look Forward to the Hanford Advisory Board

Shirley J. Olinger
Acting Manager
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Office of River Protection

CH2MHILL Hanford Group, Inc. | Advanced Technologies and Laboratories International, Inc. | Bechtel National, Inc. | Washington Group International

EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Board 2007 Priorities	Results	Influenced DOE Decisions/Processes
Public Policy Values	Advice #196 Workers' Compensation*	• RL manages program and we are working with them to improve the program
Prioritization of Cleanup Work – Sequencing of Work	Advice #192 Tank Waste Program Path Forward	• Big picture advice that helped to move ORP and Tank Waste Committee (TWC) to higher level of detail • Allowed us to pursue individual technical topics in context of the total program • Created functional logic diagram and initiated ongoing dialogue • Plan to meet with issue managers on River Protection Project Low-Activity Waste Treatment Review and Technology Readiness Assessment
	Advice #198 FY 2008-2009 & Outyear Budgets*	• Helped to craft high quality transmittal for FY 2009 budget submission • Recognized the HAB's values and priorities for more tank retrievals and cleanup of contamination from tank leaks; and, continue full funding for the Waste Treatment and Immobilization Plant. We agree that a decision on Demonstration Bulk Vitrification System is critical • Continue to share information with the Budgets and Contracts Committee
	Advice #199 Costs and Baseline Schedules	• Working response

Board 2007 Priorities	Results	Influenced DOE Decisions/Processes
Institutional Controls	Advice #197 Groundwater Values Flowchart* Educational and informational meetings	• RL has the lead and we are working with them to strengthen Groundwater integration
Develop methods and recommendations to achieve public confidence on end state decision points	Advice #193 Double Shell Tank (DST) Integrity Assessment Report	• Identified HAB's values and priorities on DST program • Initiated dialogue with ORP, ORP's prime contractors and TWC issue managers • Collaborated and worked through areas of concern to provide details of the DST program • Built confidence in program
Groundwater Integration	Advice #197 Groundwater Values Flowchart* Groundwater/Vadose Zone Management Plan discussions and informal feedback	• Identified areas requiring better integration • Recognized Board's values for Groundwater cleanup • Continue to strengthen Groundwater integration efforts with RL
Public Involvement	Advice #198 FY 2008-2009 & Outyear Budgets* State of the Site 2007	• Created Hanford Pie-Chart exercise

*ORP and RL Advice

Specific issues for the HAB to address in the coming year

- Tri-Party Agreement
- River Protection Project Low-Activity Waste Treatment Review
- Tank Closure & Waste Management Environmental Impact Statement (TC & WM EIS)
- Demonstration Bulk Vitrification System
- Vadose Zone and Groundwater
- Integrated Disposal Facility Performance Assessment once TC & WM EIS draft is available

Cleanup Achievements

- Waste Treatment and Immobilization Plant (WTP)
  - Certification of the WTP Revised Ground Motion (RGM)
  - Resume Construction on Pretreatment Facility and High-Level Waste Facility
  - Deputy Secretary approved project baseline
  - WTP goes GREEN
  - Voluntary Protection Program application
  - Certification of Bechtel National, Inc. Earned Value Management System
  - Completed all three milestones on schedule

Cleanup Achievements

- Final steel placement on the Analytical Laboratory

- Low-Activity Waste Facility
  - Enclosure of facility
  - Completion of roof
  - Placement of roof stack

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Hanford Tank Cleanup Status

Office of River Protection

Retrieval Summary Updated through July 1, 2007

RETRIEVED

S-112
- Capacity of tank: 758 Kgals
- Completion date: March 28, 2007

C-202
- Capacity of tank: 55 Kgals
- Completion date: August 11, 2005

C-204
- Capacity of tank: 55 Kgals
- Completion date: December 11, 2006

C-203
- Capacity of tank: 55 Kgals
- Completion date: March 24, 2005

C-103
- Capacity of tank: 530 Kgals
- Completion date: November 1, 2006

C-106
- Capacity of tank: 530 Kgals
- Completion date December 31, 2003

C-201
- Capacity of tank: 55 Kgals
- Completion date: March 23, 2006

IN PROGRESS

C-109
- Capacity of tank: 530 Kgals
- Retrieval started: June 19, 2007
- Volume of waste to be removed: 63 Kgals

C-108
- Capacity of tank: 530 Kgals
- Retrieval started: December 20,2006
- Volume of waste to be removed: 66 Kgals

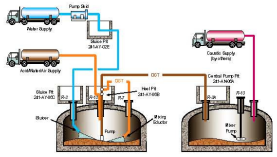
S-102
- Capacity of tank: 758 Kgals
- Retrieval started: December 17, 2004
- Volume of waste to be removed: 464 Kgals

NEXT IN LINE

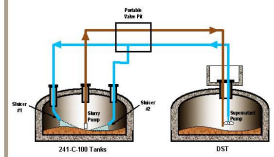
C-104
- Capacity of tank: 530 Kgals
- Volume of waste to be removed: 259 Kgals
- Retrieval to begin: FY 2008

C-110
- Capacity of tank: 530 Kgals
- Volume of waste to be removed: 178 Kgals
- Retrieval to begin: FY 2008

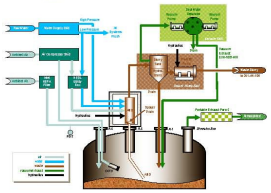
Acid Dissolution



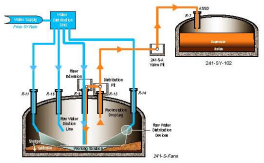
Modified Sluicing



Vacuum Retrieval



Saltcake Dissolution

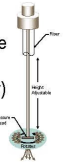


Remote Water Lance (Salt Mantis)

Mobile Retrieval Tool (Sand Mantis)

Mobile Retrieval Tool (Foldtrack)

High Pressure Mixer (Rotary Viper)



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Tank Farm Achievements

- Certification of CH2M HILL Hanford Group, Inc. Earned Value Management System – the first in complex
- Retrieved seventh single-shell tank S-112
- Demonstration Bulk Vitrification System full scale dryer and integrated melt test completed
- Completed 242-A Evaporator campaigns to reduce approximately 1.21 M gallons of waste
- Deployed five new tank retrieval technologies
- Double-Shell Tank integrity activities (on track to complete milestone M-48-15 by the end of September 2007)
- Completed 5 of the 14 milestones on schedule and 2 are on track to be completed on schedule

Building a Strong Foundation of Safety

Performance Indicator	Metric/Goal	Tank Farm FY 2007 Actual Performance				WTP FY 2007 Actual Performance			
		1st Qtr	2nd Q	3rd Q	4th Q	1st Qtr	2nd Q	3rd Q	4th Q
		● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●
Occupational Safety	Occupational Safety – Total Recordable Case (TRC) Rate. 1.6 cases and below (CH2), 2.1 cases and below (BNI) per 200,000 hours equals green; > 2.5 red	1.33	1.31	0.32		1.24	0.53	1.41	
	OSHA Lost Work Days (Days Away from Work or Restricted Days – DART). Metrics below 0.7 cases (CH2) and 0.4 (BNI) green; > 1.0 red.	0.66	0.33	0.32		1.03	0.00	0.94	

Cleanup Challenges

- WTP
  - Resolving outstanding technical issues
  - Quality Assurance
  - Safety
  - Consistent and predictable funding
  - Staffing the workforce
- Tank Farm
  - S-102 event
  - Retrieving waste
  - Supplemental treatment solution

Look Ahead

- Tri-Party Agreement
- Tank Closure and Waste Management Environmental Impact Statement (TC & WM EIS)
- WTP
  - Ramp up full construction
  - Pretreatment Experimental Platform startup
- Tank Farms
  - Demonstration Bulk Vitrification System
  - Pretreatment at Tank Farms
  - Complete retrieval from two Single-Shell Tanks using innovative technologies
  - Continue Double-Shell Tank integrity activities
  - Perform 242-A Evaporator campaigns
  - Continue characterization for Tank Farm soils