



Hanford Update



U.S. Department of Energy -- U.S. Environmental Protection Agency -- Washington State Department of Ecology

WINTER EDITION 2005

USDOE BEGINS DEVELOPMENT OF FY 2007 BUDGET

In the last few years, the U.S. Department of Energy (USDOE) has fundamentally changed the way it does business in the Environmental Management Program. Long-term baselines and rigorous change controls are now used to establish near and long-term plans for Hanford cleanup.

These initiatives flow down to cleanup contracts in the form of contract performance incentives that are consistent with Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones. Contractors develop detailed lifecycle baselines to achieve the performance incentives and have responsibility to manage their funds accordingly. The work is not re-planned each year, and annual budget requests flow from the baselines.

A workshop and evening public meeting are being planned for the end of March 2005 in the Tri-Cities to discuss our FY 2007 budget request. The workshop will go into specific details about near and long-term cleanup activities, baseline information and Tri-Party Agreement schedule. The public meeting will be a high-level overview of the details covered during the workshop, but both will provide the public with an opportunity to comment.

The USDOE, the US Environmental Protection Agency and the Washington State Department of Ecology, would like to discuss with the public and hear their comments on Hanford's baseline and proposed budget request. An advertisement as well as a mailing announcing the exact date, location and time of the workshop and public meeting will be sent out in early March.

For more information, visit our website at: www.hanford.gov or contact Erik Olds 509-372-8656, email: [Theodore E Erik Olds@orp.doe.gov](mailto:Theodore_E_Erik_Olds@orp.doe.gov) or contact Sharon Braswell at 509-376-8503, email: [Sharon M Braswell@orp.doe.gov](mailto:Sharon_M_Braswell@orp.doe.gov).

PUBLIC COMMENT PERIODS

2/28/05 – 4/14/05
PCP for draft permit conditions for Waste Treatment Plant (WTP) Permit modifications

3/28/05 – 5/9/05
PCP for Integrated Disposal Facility (IDF) permit and State Environmental Policy Act (SEPA) decision

HANFORD HOTLINE

1-800-321-2008

Call the Hanford Hotline for more information on these topics, and other Hanford cleanup issues and activities.

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NEWS & UPDATES

WORK ACCELERATES TO CLEAN UP 300 AREA

Hanford's Environmental Restoration Contractor has accelerated its work to demolish several facilities in the 300 Area.

This accelerated work schedule results from the U.S. Department of Energy's (USDOE) early transfer of several buildings from Fluor Hanford Inc., and Pacific Northwest National Laboratory to Bechtel Hanford Inc., which operates the Environmental Restoration project for USDOE. The goal is to expedite cleanup and reduce costs by integrating facility demolition with Columbia River corridor cleanup so some of the remediated 300 Area can be released to private industry.

Some of the buildings must be removed before the waste sites underneath them can be cleaned up. A public comment period was held (October 25 – December 1, 2004) to obtain input on the Engineering Evaluation/Cost Analysis for the final disposition of 82 buildings and structures in the 300 Area. The facilities were used for reactor fuel fabrication, as well as research and development.

Demolition of the 313 Building will begin this March. The facility was used to manufacture uranium fuel rods for Hanford's plutonium production reactors and is contaminated with beryllium – a naturally occurring metal used in metalworking and other industries. Environmental Restoration project employees, who have tested free of beryllium sensitivity, have attended special training to enable them to work safely around beryllium.

ERDF EXPANSION COMPLETE

The addition of two new cells at the Environmental Restoration Disposal Facility (ERDF) was completed in mid-December 2004, increasing ERDF's disposal capacity to eight million tons, from 5.2 million tons. The Environmental Restoration Contractor team, led by Bechtel Hanford, operates ERDF for the U.S. Department of Energy (USDOE).

Waste generated from Hanford cleanup activities in the Columbia River corridor is transported for permanent disposal at the facility. This waste includes materials removed from waste sites and burial grounds along the Columbia River and demolition debris from the surplus plutonium production reactors and other facilities. More than five million tons of waste, or half of the estimated 10 million tons of contaminated material estimated to be located near the Columbia River, have been disposed at ERDF since operations began in 1996.

Because of ERDF's design, new cells can be added without interrupting current disposal operations. The facility now has six cells each measuring 500 feet square by 70 feet deep. The first two cells went into operation in 1996, with two more cells added in 1999. The facility was designed to be expanded as needed. ERDF employees soon will begin constructing an interim cover over cells 3 and 4 in addition to the interim cover placed over cells 1 and 2 in 2000.

Continued on next page...

NEWS & UPDATES

ERDF CONTINUED...

A public comment period will be held this Spring, to obtain input on a proposed change to the ERDF Record of Decision (ROD). The current ROD allows for ERDF to be used to treat and dispose of contaminated materials cleaned up only from waste sites and former production facilities.

The proposed change would allow for the disposal of other Hanford-only wastes at ERDF. Such wastes include those from surveillance, maintenance, and deactivation of facilities; research and development; waste storage and treatment activities; infrastructure support; and environmental monitoring programs at Hanford.

TANK WASTE RETRIEVAL NEGOTIATIONS

The Tri-Party Agencies recently concluded a public comment period (December 27, 2004 – February 10, 2005) on proposed changes to three milestones in the Tri-Party Agreement (TPA). These changes would move the start of negotiations for the single-shell tank waste treatment baseline (Milestone M-62-08 and M-62-11) and associated retrieval and closure schedules (Milestone M-45-00C) from:

	<u>Current Date</u>	<u>New Date</u>
M-62-08	January 30, 2005	June 30, 2006
M-62-11	January 30, 2006	June 30, 2007
M-45-00C	June 30, 2005	September 30, 2006

Milestone M-62-08 calls for the submittal of a Hanford low-activity tank waste supplemental treatment technologies report, a draft Hanford tank waste treatment baseline, and a draft negotiations agreement in principle. The second part of this, Milestone M-62-11, calls for the submittal of a final Hanford tank waste treatment baseline. All agencies agree an extension of the M-62 milestones is necessary in order to gain sufficient information from the Research, Development, and Demonstration activities to be conducted on low-activity waste treatment technologies.

Milestone M-45-00C requires the initial negotiation of Single-Shell Tank waste retrieval, closure activities, and associated schedules. USDOE, EPA, and Ecology agree that an extension is needed to provide more time for ample information to be gathered regarding the performance of the retrieval activities to be conducted. This will in turn provide input as to when substantial Double-Shell Tank space would be available for additional retrievals. Additionally, the extension will allow for data from the Tank Closure Environmental Impact Statement analysis to be made available to and considered by the negotiators.

If you would like to receive the HANFORD UPDATE electronically, please contact: Tim Hill; tih461@ecy.wa.gov; 509-372-7908

NEWS & UPDATES

INTEGRATED DISPOSAL FACILITY UPDATE

Hanford will soon get a new facility for the disposal of radioactive waste not being disposed under the Comprehensive Environmental Recovery, Compensation, and Liability Act (CERCLA). This new facility, known as the Integrated Disposal Facility (IDF), is a lined landfill that will be located in the 200 East area of the Hanford Site.

The Tri-Party Agencies have agreed to begin the first phase of the project, allowing completion of a cell that is approximately twenty-six acres in size. Low level radioactive waste and hazardous waste (including radioactive waste with a hazardous component) will be segregated into different sections of the cell. Rough excavation has been completed on this phase.



Acting on a suggestion made by Hanford Advisory Board (HAB) members at the HAB's Tank Waste Committee meeting in January, the Washington State Department of Ecology (Ecology) and the Office of River Protection (ORP) will limit waste disposal at the hazardous waste portion of the IDF to vitrified mixed low activity waste from the Waste Treatment Plant and the Demonstration Bulk Vitrification System. Mixed low activity waste is hazardous waste from which the most radioactive elements have been removed. The waste form is then incorporated into glass in a process called vitrification.

The decision to limit disposal at IDF allows the agencies to move forward on permitting the hazardous waste portion of the facility so that it will be ready to begin receiving waste on schedule. Issues relating to disposal of onsite mixed low level waste, offsite mixed low level waste (if such disposal is required), secondary waste from the Waste Treatment Plant, and mixed-low activity waste from a full scale supplemental treatment facility at the hazardous waste portion of the IDF are not being decided at this time. If and when such issues are decided, they will be addressed independently in future permit modifications and State Environmental Policy Act (SEPA) analyses. The public will be provided with opportunities to comment on modifications at that time.

In past February, ORP and its contractor, CHM2-Hill, (the permittees) submitted a modified permit application reflecting the change in initial waste forms planned for disposal at this facility. Ecology will then review the application and perform a SEPA review before writing a draft permit and making a SEPA decision. The draft permit and the SEPA decision will be ready for public comment in March 28th – May 9th.

Ecology also expects to issue a temporary authorization (TA) for clay liner testing at a nearby test-bed facility. The TA will allow the permittees to test the clay liner they will eventually install in the IDF and provide for Ecology oversight of the testing. The TA issuance allows for the required testing time prior to installation of the clay liner at the IDF excavation.

NEWS & UPDATES

2004: A YEAR OF HANFORD CLEANUP PROGRESS

Two urgent risks were eliminated at the Hanford Site in 2004. Workers completed a four-year project to stabilize and package nearly 20 tons of plutonium materials at the Plutonium Finishing Plant. The plant, consisting of more than 60 buildings, produced 60 percent of the nation's supply of plutonium metal for nuclear weapons and was once considered one of the top five hazardous facilities in the DOE complex. In the past year, nine of the plant's buildings were demolished and seven of the plant's more than 190 gloveboxes were cleaned out. In May, the first demolition of a plutonium processing facility at Hanford – the 233-S Plutonium Concentration Facility- was completed. The eight-month demolition was the first open-air demolition of a highly contaminated processing facility in the DOE complex.

In October workers completed a four-year effort to remove 2,300 tons (just over 4.65 million pounds) of irradiated, or "spent," nuclear fuel from two water-filled basins near the Columbia River. When this project began the K-Basins held the largest collection of radioactive materials bordering the Columbia River. The fuel has been stabilized, dried and placed into safe interim storage away from the river. Hanford's spent nuclear fuel makes up about 80 percent of the Department of Energy's nationwide spent-fuel inventory and is one of the largest sources of radioactivity on the Hanford Site (over 50 million curies). Operations began to retrieve approximately 65 cubic yards of radioactive sludge from the basins. In August, cement was poured into the discharge chute – the connection between the basin and the K East reactor.

In 2004 operations began to retrieve 75,000 drums of radioactive waste. More than 8,700 drums had been retrieved by the end of the calendar year. During 2004, 66 shipments of Transuranic waste were sent to the Waste Isolation Pilot Plant in New Mexico, bringing the total number of shipments to 127 since shipments began in 2000.



105,000 fuel assemblies, comprising 50 million curies of radioactive material, were moved from K-Basins near the Columbia River to dry storage on Hanford's Central Plateau



To ensure worker safety, work crews follow a methodical process for retrieving drums of waste from Hanford burial trenches.

NEWS & UPDATES

WTP PROGRESS CONTINUES

The Waste Treatment Plant continues to take shape, with engineering over 70 percent complete and construction nearly one-third complete. Significant progress was made during the sweltering summer months.

The most noticeable advancement is the start of construction of the Analytical Laboratory, located near the Pretreatment Facility. The three-year effort of the Analytical Laboratory team's engineering and design staff came to fruition last summer with initial building excavations at the Construction Site. Progress continues with underground pipe installation and basement vault structural concrete placement.



Analytical lab basement vault

The Laboratory - the final major facility under construction for Hanford's vitrification plant - will support WTP process facilities by providing on-site waste analyses. It will enable the WTP to operate within strict control limits for nuclear safety, process control, environmental compliance, and product quality. Over 10,000 waste samples per year will be evaluated at the lab.

Major pieces of equipment, including boilers, vessels, ductwork, electrical switchgear and melter handling equipment are being installed. Support buildings and facilities are being erected. A major milestone was reached in August, by setting in-place four, 275-ton stainless steel waste receipt vessels in the Pretreatment Facility. The Pretreatment team continues work on both interior and exterior wall placements.

Another submerged bed scrubber vessel was placed in the High-Level Waste Vitrification Facility. Fabricated off-site, the vessels are important equipment for meeting air emission standards. Craft workers continue to place concrete walls and install structural steel for the facility's first elevation.



**Low-Activity Waste Vitrification Facility
canister turn-table installation**

The Low-Activity Waste (LAW) Vitrification Facility pushed forward with structural steel and concrete placements for the building's 28-foot level.

Stainless steel turntables for the LAW canisters are in place in the area called a "pour cave" where the molten glass mixture will be poured from the melters into 7 foot by 4 foot canisters.

FROM THE HANFORD ADVISORY BOARD

By Todd Martin

Chair, Hanford Advisory Board

The Hanford Advisory Board was established ten years ago to provide advice to the Tri-Party Agreement (TPA) agencies on Hanford cleanup and waste management. The Board includes representatives of local and regional government, Native American tribes, business interests, workers, the State of Oregon, environmental organizations, agencies, public interest groups, and the public-at-large. Todd Martin, representing Citizens for a Clean Eastern Washington, chairs the Board. Susan Leckband, Non-union Non-Management employee representative, and Shelley Cimon, public-at-large, serve as co-vice chairs for the board. Principles adopted by the Board have helped to form a Northwest stakeholder vision of what the Hanford Site should be like in the future.

The Hanford Advisory Board (Board) makes a concerted effort to avoid being distracted by the legal wrangling between any agencies or stakeholders by keeping our eye on the ultimate prize – a cleaner Hanford Site. Amid the swirl of lawsuits and counter-lawsuits, contract award protests and general confusion surrounding Hanford cleanup issues, the Board is determined to “stay the course.” That course began early on by establishing the Board’s charter and setting the framework still used today. The Board’s charter has rarely changed but the details of the process by which the Board brings issues forward has been refined through the years. Each year the Board membership performs a self-review and asks the agencies their opinion on the Board’s functioning in the past year as well as suggestions for the upcoming year. This evaluation helps the Board stay abreast of the issues and concerns of various organizations involved with the Board. For the most part, these evaluations have led to efficiencies and improvements in Board activities.

With recent cleanup successes such as the removal of the spent fuel from the K Basins and continued construction on the tank waste vitrification plant, our confidence in the U.S. Department of Energy’s (DOE) ability to clean up safely with adequate regulator oversight has increased. The Board will continue to evaluate ourselves, DOE, the U.S. Environmental Protection Agency and the Washington State Department of Ecology. Our commitment to the Pacific Northwest citizens has not flagged – we always have our “eyes on the prize.”

HOW CAN YOU BE INVOLVED?

The next meeting of the Board will be April 28-29th in Yakima, WA. Public comment periods are provided during each day of the meeting. The Board encourages the public to attend its meetings and would like to hear from you about the issues and concerns you have about cleanup at Hanford. For more specific information on the Board meeting, please contact Sharon Braswell at 509-376-8503

TO LEARN MORE ABOUT THE HAB:

www.hanford.gov/boards/hab/index.htm

SEND COMMENTS TO:

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HANFORD HAPPENINGS & PUBLIC MEETINGS

4/4/2005

Groundwater Remediation Project Monthly Meeting

Location: Fluor Hanford, 1200 Jadwin, Richland WA – 1st floor conf. room

Time: 1:00 p.m. – 3:00 p.m

Open: TO PUBLIC

For more information: Brittney Drollinger; bdro461@ecy.wa.gov; 509-372-7897

4/28-29/2005

Hanford Advisory Board Meeting

Location: Clarion Hotel & Conf. Center, 1507 N. 1st St., Yakima, WA.

Time: April 28: 9:00 – 5:00; April 29: 8:30 – 3:30

Open: TO PUBLIC

For more information: Erik Olds; Theodore_E_Erik_Olds@orp.doe.gov; 509-372-8656

5/19/2005

300 Area End States Workshop

Location: WSU-Tri-Cities Consolidated Information Center,
2770 University Dr., Richland, WA

Time: May 18: 8:00 – 4:30; May 19: 8:00 – 12:00

Open: TO PUBLIC

For more information: Steve Chalk; Steven_E_Chalk@rl.gov; 509-372-8589

http://www.hanford.gov/docs/rbes/ES_Index.cfm

6/16-17/2005

Hanford Advisory Board Meeting

Location: Red Lion, Hanford House, 802 George Washington Way, Richland, WA.

Time: June 16: 9:00 – 5:00; June 17: 8:30 – 3:30

Open: TO PUBLIC

For more information: Erik Olds; Theodore_E_Erik_Olds@orp.doe.gov; 509-372-8656

9/8-9/2005

Hanford Advisory Board Meeting

Location: Double Tree Hotel Lloyd Center, 1000 NE Multnomah, Portland, OR.

Time: September 8: 9:00 – 5:00; September 9: 8:30 – 3:30

Open: TO PUBLIC

For more information: Erik Olds; Theodore_E_Erik_Olds@orp.doe.gov; 509-372-8656

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