

Cleanup Progress

FY 2007



Annual Report to the Oak Ridge Community

This report was
produced by Bechtel Jacobs Company LLC,
DOE's Environmental Management Contractor for the Oak Ridge Reservation.

About the cover: The photo featured on the cover shows a stream bypass that was part of a wetlands restoration effort initiated in conjunction with construction of a new haul road. The road connects East Tennessee Technology Park to the on-site CERCLA Waste Facility in Bear Creek Valley. More than 11,000 loads of waste have been transported on the road as of the end of FY 2007. The project received a "Best in Class" award for pollution prevention from DOE in 2007.

Message from the Manager

DOE Oak Ridge Office

One mission supporting many others on the Oak Ridge Reservation...that's how we view our important responsibilities in the Environmental Management Program. As one of the most diverse field sites in the U.S. Department of Energy (DOE), we can see how accomplishing the cleanup of the Oak Ridge National Laboratory (ORNL) and the Y-12 National Security Complex enables the Department's missions in science, nuclear energy, and national security to be achieved, while work at the East Tennessee Technology Park (ETTP) clears the way for this site to be reindustrialized into a private industrial park. Our Environmental Management Program allows other programs to be successful for the benefit of both the region and the nation.

At the ETTP site, dismantling and preparing the massive K-25 building for demolition is our biggest challenge. Our primary concern as we began this project in earnest in FY 2007 was for the safety of our employees. This is one of the largest decontamination and decommissioning projects in the entire Department. This structure alone includes 44 acres under one roof and contains ~400 miles of piping. We made great progress this year with pre-demolition preparations. Removal of the high-risk equipment components will be completed in the K-25 building west wing in 2008 and the east wing in 2009, with the actual demolition of the west wing scheduled to begin in the fall.

Continuing to clear the ETTP site of structures allows us to address other environmental legacies in the soil and piping under those facilities. Altogether, 12 structures were demolished in FY 2007, including the K-1401 building, a former maintenance facility that covered approximately 10 acres and was one of the original Manhattan Project facilities.

Our Reindustrialization Program obtained both regulatory and DOE Secretarial approval for the transfer of the ETTP fire station and water treatment plant and two land parcels totaling 23 acres. The two land parcels will be transferred to Community Reuse Organization of East Tennessee (CROET), while the fire station and water treatment plant will be transferred to the City of Oak Ridge. We are continuing to transition the entire site into a private sector industrial park; six buildings at ETTP have already been successfully transferred to CROET.

During 2008, we will also be initiating design work for the cleanup efforts at the ORNL and Y-12 sites as defined within previously signed Records of Decision. It is exciting to see new work being started at these sites that have ongoing missions.

Our commitment to the safety and health of our employees and the public is a constant focus while we work toward cleanup mission completion. We also strive to be a good steward of your tax dollars as we work with our regulatory agencies to accomplish cleanup efficiently for the benefit of the Oak Ridge community. And it is the community, as represented by citizens who volunteer their time on the Oak Ridge Site Specific Advisory Board, that enables us to receive community input on how we are doing in our cleanup program.

The Oak Ridge Reservation is a unique site. Most major mission work DOE undertakes is accomplished here. With your support, environmental cleanup will enable success of DOE's missions in Oak Ridge. The following pages highlight our work toward this goal.



Gerald Boyd

Commonly Used Terms

Definitions

CERCLA: The Comprehensive Environmental Response, Compensation and Liability Act of 1980 established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for hazardous waste releases at these sites, and established a trust fund to provide cleanup when no responsible party could be identified. The law authorizes two kinds of response actions: short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response, and long-term remedial actions, which permanently and significantly reduce the dangers associated with releases or threats of releases. Long-term actions can be conducted at sites on the Environmental Protection Agency's (EPA's) National Priorities List, a listing of the nation's most hazardous waste sites. The Oak Ridge Reservation was added to that list in 1989.

East Tennessee Technology Park: The former K-25 Gaseous Diffusion Plant.

Explanation of Significant Differences: An Explanation of Significant Differences documents necessary changes to an existing Record of Decision.

Federal Facility Agreement: Cleanup activities are performed in accordance with state and federal laws, and CERCLA requires an interagency agreement to facilitate the interaction between state and federal entities (for the DOE Oak Ridge Office, that would be DOE, EPA, and the Tennessee Department of Environment and Conservation). The Federal Facility Agreement for Oak Ridge was initiated in January 1992 to satisfy the interagency agreement requirement.

Record of Decision: Under the CERCLA process, a Record of Decision formally documents the selection of a preferred cleanup method at Superfund sites after a series of steps, including a Remedial Investigation/Feasibility Study. After a preferred cleanup alternative is selected, it is presented to the public for comment in a Proposed Plan. EPA, the state, and the lead agency then select a remedy and document it in the Record of Decision.

Removal Actions: Some cleanup activities on the Oak Ridge Reservation are conducted as Removal Actions under CERCLA. These actions provide an important method for moving sites more quickly through the CERCLA process. When a site presents a relatively time-sensitive, non-complex problem that can and should be addressed, a Removal Action would be warranted.

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Introduction

Environmental Management (EM) is the largest DOE program in Oak Ridge, with cleanup programs under way to correct the legacies remaining from several years of energy research and weapons production.

Because of past practices, portions of land and facilities on the 33,750-acre Oak Ridge Reservation are contaminated with radioactive elements, mercury, asbestos, polychlorinated biphenyls, and industrial wastes. The Oak Ridge Reservation is on the Environmental Protection Agency's *National Priorities List* and is being cleaned up under a Federal Facility Agreement with the U.S. Environmental Protection Agency and the State of Tennessee.

In 2007, the program focused on cleanup efforts at East Tennessee Technology Park. Significant progress has been made in cleaning up large gaseous diffusion buildings, various facilities, and soils at this site. Cleanup efforts also continued at the other Oak Ridge Reservation sites and were initiated at the David Witherspoon Inc. 1630 site in South Knoxville.

The current focus of the EM Program is completing the high-priority projects of demolishing the K-25 Building and preparing for cleanup activities at the Oak Ridge National Laboratory and Y-12 National Security Complex.



East Tennessee Technology Park

Heritage Center



The former K-25 Site began operations during World War II as part of the Manhattan Project. Its original mission was to produce enriched uranium for use in atomic weapons. The plant was permanently shut down in 1987 and is undergoing cleanup for ultimate conversion to a private sector industrial park. Restoration of the environment, decontamination and decommissioning of facilities, and disposition of wastes are currently the major activities at the site.



Preparations Continue for Demolition

K-25/K-27 Buildings

Workers are continuing to prepare the K-25 and K-27 buildings for eventual demolition.

The three-story, U-shaped K-25 building, built during the Manhattan Project, covers 1.64 million ft² and contains 3,018 stages of gaseous diffusion process equipment and associated auxiliary systems. Each stage consists of a converter, two compressors, two compressor motors, and associated piping.

The K-27 building covers 374,000 ft² and contains 540 stages of gaseous diffusion equipment and associated auxiliary equipment.

An action memorandum (AM) for the demolition of the K-25 and K-27 buildings was signed in February 2002. The AM stipulates that the buildings be demolished to slab and the associated waste disposed. The first phase of the demolition, hazardous materials removal, started in December 2001 and was completed in June 2005. Hazardous materials removal primarily included the removal of asbestos-containing building material, such as transite panels and insulation, from inside the K-25 and K-27 buildings. During the three-and-a-half-year period, a total of 944 waste shipments containing approximate-

ly 621,000 ft³ of waste were transported to the on-site CERCLA Waste Facility, a waste disposal facility located near the Y-12 National Security Complex.

A new plan for demolishing the K-25 and K-27 buildings was developed in 2006 that would better protect workers from deteriorated conditions in the buildings by reducing the number of workers and hours in the buildings. The new plan involves removing high-risk components, unbolting and removing motors and compressors, and then demolishing the building from the outside using heavy equipment.

Activities that have been under way to prepare the K-25 building for demolition include process system stabilization by foaming, removal and segmentation of high-risk components, removal of transite panels, and shipment of converters off site for disposal.

Additional activities in FY 2007 included constructing segmentation and nondestructive assay shops to expand dismantling capabilities, installing nets and barriers to protect workers from falling debris, and initiating removal of approximately 2,700 light ballasts.



A valve removed from the building process gas system in the K-25 building is being loaded into a box for shipment to the Nevada Test Site.

Process equipment is being foamed for contamination control. The foam solidifies contaminants in place.



Workers are removing light ballasts for the K-312 section of the K-25 building. About 2,700 light fixtures will need to be removed.

Shops have been built to increase dismantling capacity outside the K-25 building.



Transformation of ETPP Continuing

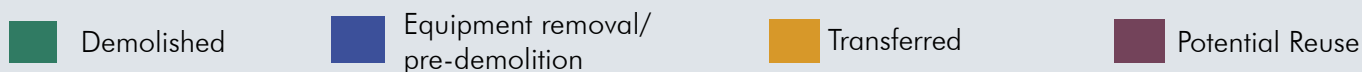
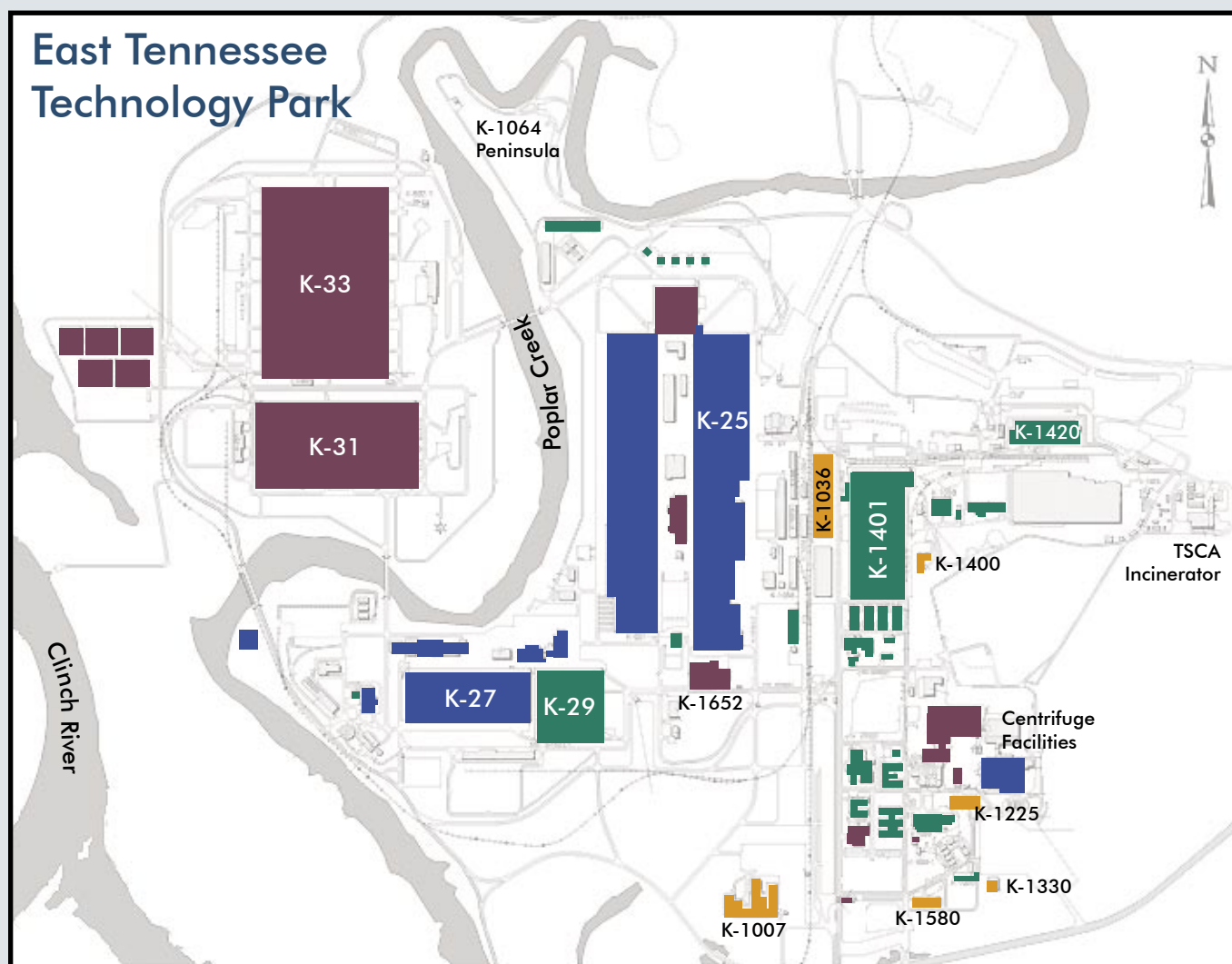
As demolition activities continue at ETPP, the landscape at the site continues to change. Workers have already demolished the massive K-29 building, and in FY 2007, Building K-1401 and several other facilities were brought down.

Most buildings at ETPP, except for a few usable ones, are scheduled for demolition as part of DOE's accelerated cleanup plan. The facilities that will remain are targeted for potential title transfer to private sector organizations under a reindustrialization program.

Six buildings transfers have taken place, and two more are in the planning stages.

Building demolition is being performed through several projects: (1) K-25/K-27 Buildings, (2) Group I Auxiliary Facilities, (3) Group II, Phase 1 Main Plant Facilities, (4) Group II, Phase II Buildings (K-1064 Peninsula), (5) Group II, Phase 3 Remaining Facilities, and (6) K-29/K-31/K-33 Buildings Decontamination.

Because these are removal actions, the Comprehensive Environmental Response, Compensa-



tion, and Liability Act of 1980 (CERCLA) Zone 1 and Zone 2 Records of Decision (RODs) will determine the final remedy for the contaminated slabs, soils, and below-grade structures.

Group I: Auxiliary Facilities

In FY 1997, DOE signed an AM to demolish five ETP auxiliary facilities. This project began in FY 1998 and was completed in FY 2006. In FY 2006, the final Removal Action Report was prepared.

Group II, Phase 1: Main Plant Facilities

In FY 2000, DOE signed an AM to demolish the ETP main plant facilities. This project began

in August 2000 and was completed in December 2003. In FY 2004, the work was completed, and the Removal Action Report was prepared.

Group II, Phase 2: K-1064 Facilities

DOE signed an AM in July 2002 for the demolition of 18 facilities and the removal of scrap material located in the K-1064 peninsula area. In FY 2007, the work was completed, and the Removal Action Report was prepared.

Group 2, Phase 3: Remaining Facilities

In September 2003, DOE signed an AM to demolish the approximately 500 remaining facilities. In FY 2007, 16 predominantly uncon-



*Demolition projects
in FY 2007
included Building
K-1401 (above)
and K-1320 (left)*



K-1420 demolition project team

taminated facilities, 20 low-risk/low-complexity facilities, and two high risk facilities—K-1401 and K-1420—were demolished.

K-1401 was built in the early 1940s as a maintenance facility to support the gaseous diffusion process. It was approximately 400 feet by 1,000 feet by 32 feet in height with a basement measuring approximately 200 feet by 340 feet.

K-1420 was built in 1953 and placed into operation in 1954 to perform maintenance and reconditioning on uranium enrichment equipment. It had approximately 101,600 square feet of floor space. Huge excavators were used to rip through the concrete and steel structural elements that comprised the buildings' walls and floors. The demolition of K-1401 was completed in September 2007, and demolition of K-1420 was completed in December 2006.

In the Poplar Creek area, asbestos abatement was completed in K-633, K-131, K-631, K-1231, and K-413; chemical treatment was completed in K-633 and the K-27/K-633 tie line; characterization was completed in K-1231,

K-1233, K-633, and K-633/K-27 tie line; chemical treatment was completed of all facilities and tie lines associated with hydrofluoric acid distribution to the uranium processing facilities; and the remaining uranium hexafluoride (UF_6) cylinders from Building K-33 were disposed.

K-29/K-31/K-33 Buildings

DOE signed an AM in 1997 to decontaminate and remove equipment from the K-29, K-31, and K-33 gaseous diffusion buildings. The contractor, BNG America, completed that work in FY 2005, and the Removal Action Report was prepared in FY 2006.



K-1420 demolished to slab foundation

Progress Made on ETP Soil Remediation

The soil at ETP is to be remediated to a level that protects a future industrial work force and the underlying groundwater. Two Records of Decision (RODs) have been signed that address soil, slabs, subsurface structures, and burial grounds.

The Zone 1 ROD was signed by DOE, the Tennessee Department of Environment and Conservation (TDEC), and the Environmental Protection Agency (EPA) in November 2002. Zone 1 is the 1,400-acre area surrounding ETP outside the fence. The Zone 2 ROD was signed by DOE, TDEC, and EPA in April 2005. Zone 2 includes the area within the main fence of ETP (approximately 800 acres).

In Zone 1, characterization of the Contractor's Spoils Area and K-901 North Area, removal of several underground storage tanks, and remediation of Duct Island soil and the K-895 piers were completed in FY 2007. Also, the K-770 Scrap Removal Project and its Phased Construction Completion Report (PCCR) were completed. In Zone 2, the characterization results of 11 of the 44 delineated Exposure Units were documented in a PCCR. This PCCR cleared approximately 143 acres and identified two areas requiring remedial actions. Also, the K-1407 E & F Ponds and the K-1420 and K-1501 basements were backfilled.

Remediation in the Zone 2 Balance of Site-Laboratories area continued, including:

- removing the K-1004-A, B, C, D, and L concrete slabs; and
- removing seven acid pits from K-1004-A, B, C, D, and laboratories.



Photos above and right: Balance of Site laboratories acid pit removal



*K-770 scrapyard
before (above,
and after (below)*



Plan Submitted for Groundwater Remediation

A Remedial Investigation/Feasibility Study was previously submitted to EPA and TDEC addressing the nature and extent of groundwater contamination and ecological concerns, evaluating alternatives for remediation, and providing the basis for the final remediation decision for ETPP.

In FY 2007, this document was reviewed by EPA and TDEC, a revision was prepared and reviewed by these agencies, and a second revision was prepared. This second revision is expected to be approved in FY 2008. A Proposed Plan was submitted to EPA and TDEC in FY 2007; however, it will be placed on hold until the Remedial Investigation/Feasibility Study is finalized.

An Action Memorandum for the remediation of the K-1007 Holding Ponds, K-901-A Holding Pond, K-720 Slough, and K-770 Embayment was approved in FY 2007. The Remedial Action Work Plan was drafted, and the Waste Handling Plan was completed.

Building, Land Transfers Continue

Reindustrialization Program

DOE Oak Ridge Office's Reindustrialization Program obtained regulatory and DOE Headquarters approvals for the transfer of the ETPP Water Treatment Plant and Fire Station as well as two parcels of land.

One parcel, referred to as ED-5 East, is approximately 18 acres and is located near the front of ETPP, behind Building K-1007, a

large office building previously transferred to the Community Reuse Organization of East Tennessee (CROET). The second parcel, referred to as ED-7, is approximately 5 acres in size. ED-7 will be transferred to CROET and will be used for development of the Southern Appalachian Railway Museum. (SARM). SARM presently operates the Secret City Railroad from a leased location at

ETPP and offers train rides through the plant and environs. Both of the land parcels have received all necessary approvals, and transfers will take place in early FY 2008.

The ETPP Water Treatment Plant complex (K-1515) will be transferred to the city of Oak Ridge, which will provide potable water service to ETPP. The K-1652 Fire Station will also be transferred to the City of Oak Ridge, and the City will provide fire, ambulance, and emergency response services at ETPP and to the west



Parcel ED-5 East, an 18-acre lot, has been transferred to CROET under DOE's Reindustrialization Program.





end of Oak Ridge. The transfer of the two facilities will take place in FY 2008. Once transferred, the total number of buildings transferred will be eight. The transfers are part of DOE's plan to transform ETP into a private sector industrial park. The two transfers to the City of Oak Ridge are a significant achievement in that transition effort.

The K-1652 building offers approximately 23,000 square feet of space and consists of office area as well as an emergency vehicle bay and 2.2 acres of land. K-1652 was constructed in 1983. The K-1515 water treatment plant complex was constructed between 1944 and 1945 and consists of the main water treatment plant and a raw water intake structure on the Clinch River. Two potable water tanks, one dating from the early 1970s and the other from 1982, are also part of the transfer. The water plant complex has been leased to CROET since 1998 and is operated by Operations and Maintenance, Inc., CROET's contractor for provision of utility services. The plant provides potable water to ETP.

Previous transfers to CROET include Buildings K-1225, K-1330, K-1580, K-1007, K-1036, and K-1400. CROET is a not-for-profit corporation established to foster diversification of the regional economy by reutilizing DOE property for private sector investment and job creation.

Additional buildings at ETP and several land areas are in various stages of the transfer process.



ETP Fire Station



Transferred buildings include, from top, K-1400, K-1225, K-1330, K-1036, K-1580, and K-1007.

Project Completion

Melton Valley



More than 50 years of operation, production, and research activities at Oak Ridge National Laboratory (ORNL) produced a legacy of contaminated inactive facilities and waste disposal areas. Many of the wastes and facilities are located in Melton Valley, which occupies approximately 1,000 acres in the southern portion of ORNL. Wastes in Melton Valley reside at a variety of locations, including trenches, tanks, landfills, pipelines, surface structures, and impoundments. These sites have been remediated.



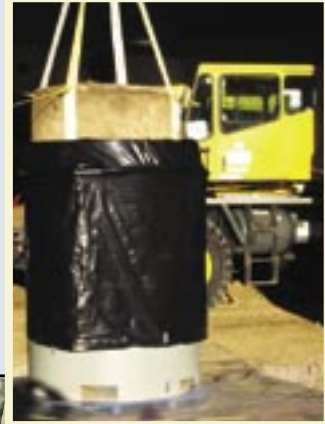
Melton Valley: At A Glance

7841 Scrapyard

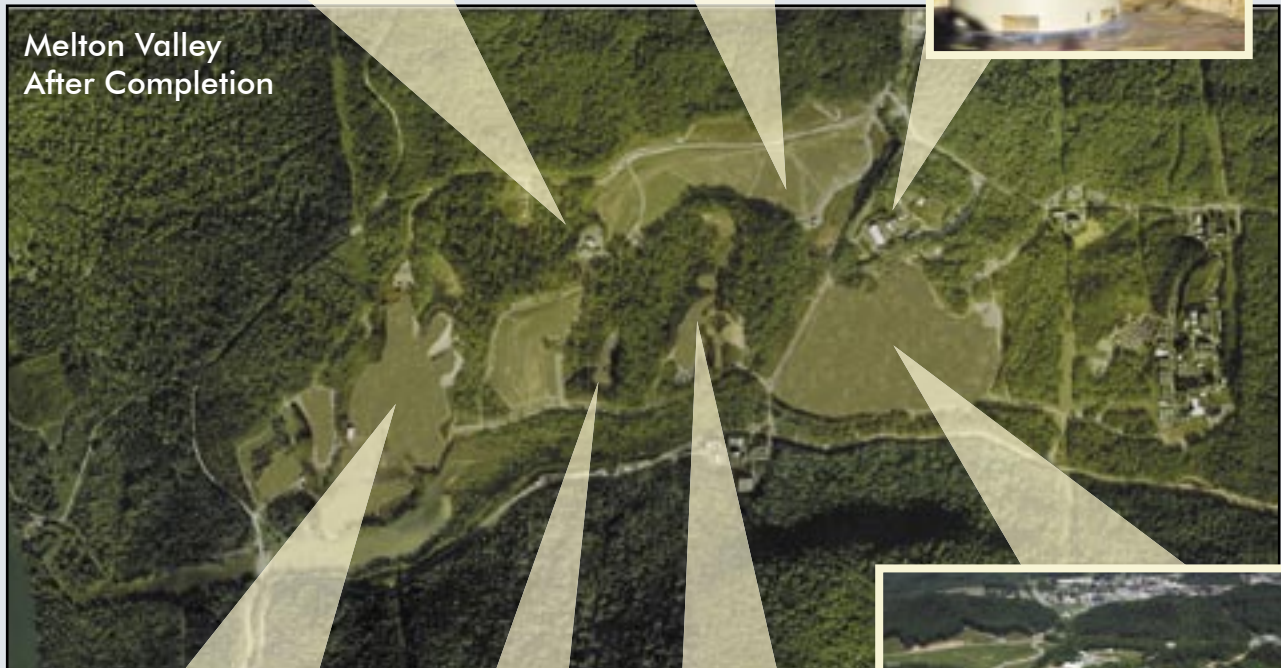


Solid Waste Storage Area 4

Transuranic Waste Retrieval



Melton Valley
After Completion



Solid Waste Storage Area 6



Solid Waste
Storage Area 5



Trench 5



Trench 7

A total area of
1,000 acres was
remediated in
Melton Valley

Remediation Milestone Completed

The Melton Valley Project field work wrapped up in September 2006. It involved capping 145 acres of waste sites, demolishing and disposing of 6,000 ft² of various buildings, and excavating 50,000 yd³ of soil. The site now moves to the monitoring and maintenance phase to ensure the remediation actions remain effective. The next few pages present a recap of the work completed in Melton Valley.

The Melton Valley Remedial Action Report, which documents remediation activity completion, was approved by the regulators in September 2007. An Explanation of Significant Differences to the Melton Valley ROD, which removes the requirement for remediation of the Shielded Transfer Tanks from the scope of the selected remedy, was approved by the regulators in December 2006. Remediation of these tanks will be addressed in the development of the appropriate NEPA documentation.

Hydrologic Isolation

Hydrologic isolation, achieved by placing engineered barriers over waste areas, decreases the rain-water infiltration to waste associated with the Melton Valley burial grounds, pits, and trenches.

Construction of 13 separate caps covering 145 acres in Solid Waste Storage Area (SWSA) 4, SWSA 5, SWSA 6, and Seepage Pits and Trenches was completed in FY 2006 with all of the caps completed and transferred to operations and maintenance activities. Collection and treatment of groundwater from Seepage Pits, Trench 7, SWSA 4, and SWSA 5 has been initiated and is now an ongoing process.

SWSAs 4, 5, and 6 were the principal waste burial sites in Melton Valley. Shallow land burial was used routinely at ORNL for disposal of solid low-level waste (LLW) from 1943 to 1986, when improved disposal technologies were implemented. Early burial procedures used un-

lined trenches and auger holes for containment, which were then covered by soil from the trench excavation or by a concrete caps and soil.

To facilitate cap installation, the project included a subproject to plug and abandon approximately 1,000 unnecessary, shallow wells; the development and closure of a 33-acre soil borrow area; relocation of Lagoon Road; construction of haul roads; demolition of any structures situated within the cap boundaries; and rerouting of several power lines.



How Hydrologic Isolation Works

- ▶ Multi-layer caps over the waste units minimize rainfall infiltration and lower the water table.
- ▶ Stormflow diversion trenches along the uphill edge of the waste units intercept and divert shallow groundwater before it flows into the waste units.
- ▶ Groundwater collection trenches along the downhill side of the waste units collect groundwater contaminated by leachate.

Small Facilities Decontamination & Demolition

The remediation of several inactive facilities, buildings, and structures in Melton Valley were addressed under the Melton Valley Decontamination and Demolition (D&D) Project. The D&D project involved demolition of surface structures to slab or below grade; decontamination; removal and/or stabilization of subsurface structures in place; waste characterization, transportation and disposal; and site restoration. Stabilization of subsurface structures was preceded by removal or fixation of transferable contamination.

The buildings and structures addressed by the D&D Project included:

- Homogeneous Reactor Experiment (HRE) ancillary facilities,
 - Liquid LLW pumping stations,
 - Equipment Storage Yard,
 - Miscellaneous storage buildings, and
 - Hydrofracture well plugging and abandonment.
- New Hydrofracture Facility,



Dismantlement of the New Hydrofracture Facility

T-1, T-2, and HFIR Tanks

Three inactive underground liquid LLW storage tanks identified as Tanks T-1 and T-2, and the High Flux Isotope Reactor (HFIR) Tank contained liquids and a mixture consisting primarily of spent TRU ion-exchange resin and sludge.

In FY 2005, the liquid waste from the HFIR tank was transferred into the ORNL liquid LLW system for treatment. The HFIR Tank and remaining sludge was stabilized in place with grout. The waste in Tanks T-1 and T-2 was mixed with liquid using a pulse-jet system and the resulting slurry transferred to the active ORNL liquid LLW system. Approximately 3,000 gallons of sludge was transferred from the tanks to be treated at the Transuranic (TRU) Waste Processing Center prior to final disposal. The empty tanks were filled with grout and closed in place. Associated equipment was removed from the site and either transferred to other projects for reuse or disposed at the CERCLA Waste Facility along with the remaining secondary waste.

Transuranic Waste Retrieval

TRU wastes that have been stored in the 22-Trench Area in SWSA 5 North were removed in 2006. A total of 204 concrete casks were retrieved, overpacked, and staged in 2006.

The six waste packages with the highest radiological inventory were relocated to Building 7883. Retrieval and overpacking of all of the concrete casks, along with loose waste and other containers, was completed.

During the 1970s, packages of TRU waste were retrievably stored in unlined earth trenches in the 22-Trench Area. Radionuclides in the TRU waste containers represent some of the most toxic and longest-lived radioisotopes stored on the Oak Ridge Reservation. DOE signed a consent agreement with the State of Tennessee in September 2000 committing to retrieve the TRU waste from the 22-Trench Area. Surrounding soil exceeding remediation levels designated in the Melton Valley ROD, as well as debris waste associated with excavation, were disposed at the CERCLA Waste Facility or at another appropriate facility. After retrieval, the overpacked TRU waste packages were staged pending transport to the TRU Waste Processing Center, where the wastes will be further characterized and repackaged for off-site disposal.

A significant pyrophoric reaction occurred on August 8, 2005, as DOE's contractors were attempting to retrieve the containers in Trench 13. These containers included carbon steel and stainless steel drums. Several of the drums

were damaged, and the carbon steel drum had deteriorated, revealing inner contents of glass mason jars. Based on historical records, the jars contained metallic carbides of uranium and plutonium that are pyrophoric.

The excavation activity apparently broke a jar from a damaged or deteriorated drum, exposing some material to air. Methane is believed to have accumulated in the headspace of the jar and was ignited when the pyrophoric material reacted.

On July 28, 2006, DOE proposed to the regulators to maintain Trench 13 in interim in situ storage, pending further efforts to identify treatment and disposition pathways. DOE proposed that final disposition of the Trench 13 pyrophoric material be addressed in the future, prior to September 30, 2009. On August 11, 2006, TDEC acknowledged DOE's effort to retrieve drums containing jars of pyrophoric metallic carbides of uranium and plutonium with methane, and agreed to the temporary storage approach as proposed by DOE.



Retrieval of a TRU cask

Trenches 5 and 7

In situ grouting (ISG) of Seepage Trenches 5 and 7, former waste disposal sites in Melton Valley, was completed in June 2006. ISG of the HRE Fuel Wells, adjacent to Trench 5, was also completed.

In situ vitrification (ISV) had been the initial remedial action selected for these trenches in the Melton Valley ROD. However, a 2003 field investigation prompted a reassessment because of the presence of standing water in the trenches and a higher-than-expected cost for ISV. After further evaluation, DOE proposed in a ROD amendment that ISG be substituted as the remedial action.

ISG is a treatment process in which materials, such as cement-based or chemical grouts, are injected at low pressures into the subsurface (or waste unit) to isolate the waste through reduction of the hydraulic conductivity. The trenches were treated by the permeation grouting method, utilizing cement-based grouts injected into the crushed limestone trench material. The soil adjacent to the trench walls was treated with a solution grout (e.g., polyacrylamide) to reduce migration of contaminants away from the trench by sealing off seepage pathways.



Driving sleeve pipes at Trench 7

Melton Valley Soils and Sediment Project

The Melton Valley Closure Soils and Sediments Project accomplishments included:

- **Excavation of the HFIR Impoundments.** These four unlined impoundments, located at the HFIR facility, received liquid process waste streams mostly from floor and laboratory drains, steam condensates, and pressure vessel cooling waters.
- **Remediation of the HRE Cryogenic Pond.** This pond, which received contaminated condensate from the HRE waste evaporator and from discarded shielding water, was taken out of service and backfilled. It later served as a demonstration for cryogenic stabilization in which soil around the pond was frozen to form a barrier to groundwater.
- **Remediation of the EPICOR-II Lysimeters.** Five stainless steel lysimeters near SWSA 6 were used for a 10-year study of the in situ leaching properties of solidified waste forms from the cleanup of Three Mile Island. The solidified waste forms were removed in 1996 and transported to another DOE facility for processing and disposal. The lysimeters and remaining contaminated soil were removed and disposed at the CERCLA Waste Facility.
- **Excavation of the Engineering Test Facility.** Nine test trenches were excavated and filled with compactible LLW in a study of disposal techniques in the early 1980s. The trench wastes and associated contaminated soils were excavated and disposed at CERCLA Waste Facility.
- **Removal of contaminated soil.** Six sites contaminated as a result of pipeline leaks or hydrofracture experiments were excavated. As a result of verification walkover surveys and sampling, 25 additional contamination areas were identified and excavated.
- **Final Verification.** The project includes a final verification activity designed to confirm that all of Melton Valley has been cleaned up sufficiently to meet the remediation levels.

Balance of Reservation

Oak Ridge and Off-Site Projects



The remaining Reservation sites are categorized into one grouping known as the “Balance of Reservation Closure Project.” This project encompasses cleanup activities in Bethel Valley at ORNL, sites associated with the Y-12 National Security Complex, Bear Creek Valley sites, and remedial actions for the remainder of the Reservation. It also includes off-site projects: Atomic City Auto Parts in Oak Ridge, which has been completed, and two David Witherspoon Inc. sites in Knoxville. Only a few of the high-profile activities have been addressed as recent attention and funding were directed to ETPP and Melton Valley.

Remediation Resumes at MSRE Facility

After successful completion of a Contractor Operational Readiness Review, fuel removal at the Molten Salt Reactor Experiment (MSRE) facility resumed in October 2007.

Completing fuel removal activities for Fuel Drain Tank 2, relocating equipment to process and remove the fuel from Fuel Drain Tank 1, and completing fuel removal activities from the Fuel/Flush Tanks are scheduled for completion in FY 2008.

The MSRE facility operated from 1965 to 1969 to test the molten salt concept. Unlike most current commercial reactors that have fuel confined to fuel rods, the MSRE facility was fueled by molten salt that flowed through the reactor chamber, where the nuclear chain reaction produced heat.

When the reactor was shut down, the molten salt was drained into two fuel salt storage tanks, where it solidified. A flush salt, similar in composition to the fuel salt but without the uranium, was recirculated through the reactor and drained into a third storage tank and solidified. All three storage tanks are located in an underground, concrete-shielded drain tank cell adjacent to the reactor cell.

In 1998, DOE signed a ROD for interim action to remove the fuel and flush salts to address the presence of fluorine and uranium hexafluoride gas. The selected remedy includes separation of the uranium from

the fuel and flush salts, removal of the fuel and flush salts from the drain tanks, storage of the uranium material, stabilization/repackaging of the residual salt, and placement of the residual salt in interim storage until final disposition.

Processing of the initial flush salt tank at the MSRE was initiated in December 2004 and completed in June 2005, with recovered uranium transported to an on-site storage facility. However, a salt plug blockage in an existing small pipe prevented removal of the flush salts from the flush salt tank.

An alternate method of salt removal has been proposed to allow residual salt removal from all tanks after completion of the two fuel salt drain tanks uranium fuel removal.

Processing of Fuel Drain

Tank 2 was initiated in December 2005. Operations were halted in May 2006 due to a fluorine release, which halted operations until the completion of the Operational Readiness Review in September 2007. Resumption of fuel removal from FDT-2 started in October, and the current forecast to complete the fuel removal activities from the tanks is FY 2008.

Following issuance of the MSRE ROD, DOE initiated planning for processing of the total Uranium-233 inventory in storage in Building 3019-A at ORNL. The U-233 inventory at 3019-A includes UF_6 -laden sodium fluoride traps from a previously completed MSRE removal action and will also include additional UF_6 -laden sodium fluoride traps from the current MSRE remedial action.



MSRE

*Scrap size reduction at
the David Witherspoon
Inc. 1630 site*



DWI 1630 Expected to Be Completed Ahead of Schedule

From the early 1950s until 1984, DOE and its predecessors sold scrap radioactive and hazardous materials from its Oak Ridge operations to local permitted dealers in Oak Ridge and Knoxville, Tenn. One of those scrap dealers was David Witherspoon Inc. (DWI), which owned and operated facilities in South Knoxville.

DOE has been remediating two DWI sites: 901 and 1630. Work on the 901 site is complete, and remediation activities at the 1630 site are expected to be completed ahead of schedule and under budget.

Acres of brush and trees have been removed, surveyors have laid out planned excavation areas, and soil excavation was initiated. Trucks began removing waste in December 2006.

At the end of FY 2007, more than 95% of all above-ground contaminated scrap and debris had been size-reduced and shipped to the CERCLA Waste Facility. Twenty-two truckloads of asbestos waste were safely shipped along with 3,500 truckloads of other soil and debris. Approximately 600 yd³ of soil was excavated and awaiting treatment. Approximately 52,000 yd³ of waste was transported from South Knoxville to Oak Ridge in FY 2007.

Almost 1,400 days have been worked on the 901 and 1630 project at the end of FY 2007 without a lost-time injury, and more than 900,000 truck miles have been logged between South Knoxville and Oak Ridge without an incident.



1630 Site during remediation



1630 Site at end of FY 2007

UEFPC ROD Supports Remediation Decisions

During FY 2007, the approved Phase 2 Record of Decision for Upper East Fork Poplar Creek (UEFPC) was utilized by the UEFPC Core Team to support remediation decisions at Y-12 National Security Complex locations that were undergoing modernization. Planning to support building demolition and the Infrastructure Facility Disposition Program was also conducted. Remediation of the Y-12 Salvage Yard is scheduled to begin in FY 2008.

Remediation of the UEFPC Watershed is being conducted in stages using a phased approach. Phase 1 addresses interim actions for remediation of mercury-contaminated soil, sediment, and groundwater discharges that contribute contamination to surface water.

The focus of the second phase is remediation of the balance of contaminated soil, scrap, and buried materials within the Y-12 Complex. Decisions regarding final land use and final goals for surface water, groundwater, and soils will be addressed in future decision documents. The Phase 2 ROD was approved by all parties in April 2006.



Y-12 National Security Complex

3019 Project to Resolve Safety, Security Issues

The U-233 Building 3019 Project has been developed by DOE to resolve legacy safety and security issues associated with 450 kg of Uranium 233, primarily uranium oxides stored in Building 3019 at ORNL. The project addresses safety issues that were identified by the Defense Nuclear Facilities Safety Board in Recommendation 97-1, "Safe Storage of Uranium-233." Down blending this material to a stable oxide will begin in 2012. This action will make the U-233 inventory unsuitable for use as special nuclear material, thereby reducing security costs at ORNL.

In FY 2007, the project completed an Environmental Assessment for the project and issued a Finding of No Significant Impact under

the National Environmental Policy Act process. In May 2007, Critical Decision 2/3A was approved, which is a term used in the DOE project management process that established the project baseline and allowed for the procurement of long-lead items.

Since the beginning of FY 2008, the project has issued request for bids for the design and fabrication of several long-lead procurement items to support processing operations. In October 2007, the project completed a readiness assessment allowing for the receipt of sodium fluoride traps from the MSRE facility. Dismantlement activities are scheduled to start in March 2008 to support future facility modifications.

Waste Management

Oak Ridge Reservation



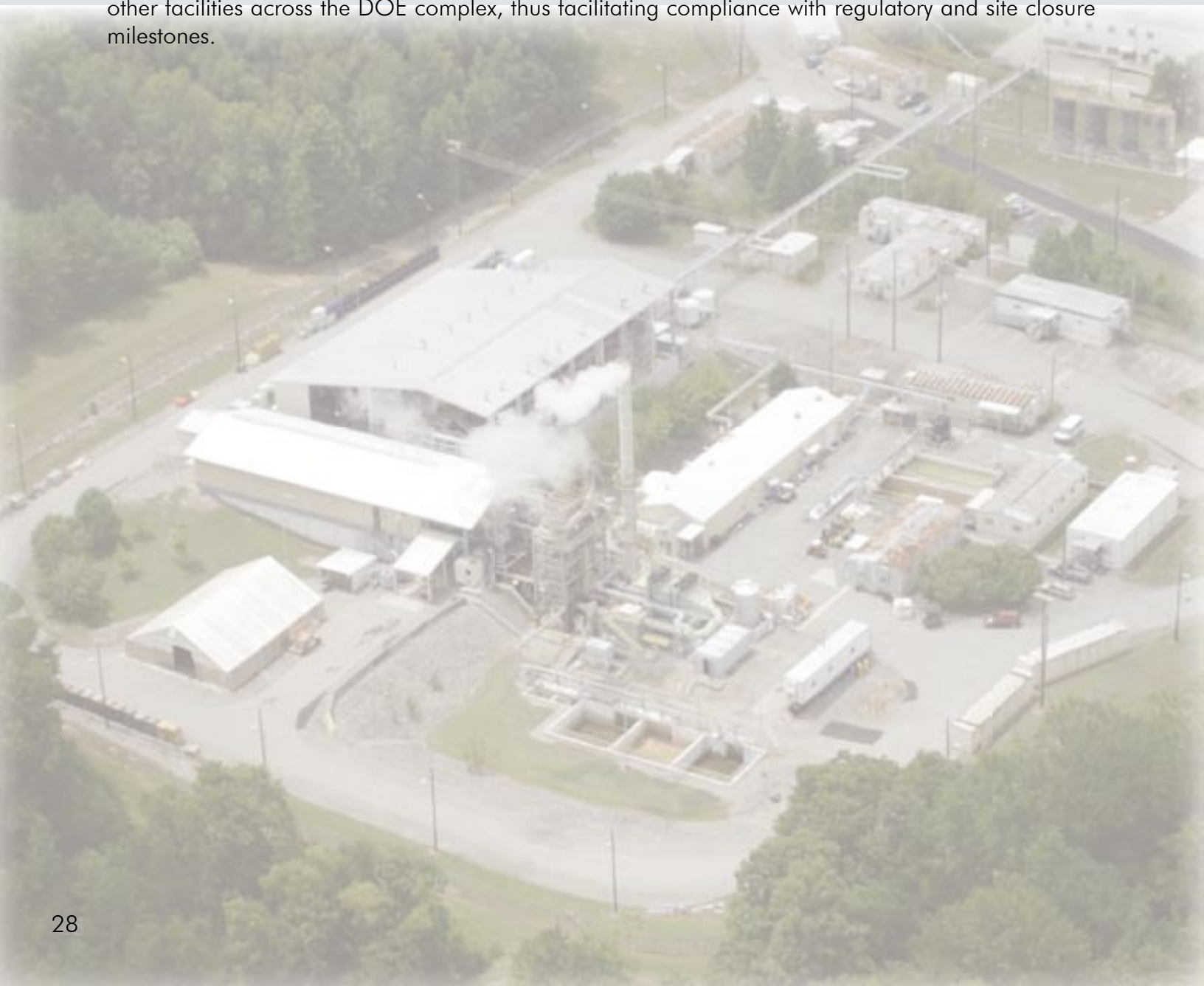
Wastes on the Oak Ridge Reservation are being disposed in a variety of ways. Much of the waste is going into the on-site CERCLA Waste Facility, which was opened to receive waste from Reservation cleanup. Wastewater is treated in the Central Neutralization Facility at ETP, and radioactive PCBs and other hazardous wastes are incinerated in ETP's TSCA Incinerator.

TSCA Incinerator Treats 1.4M Pounds of Waste

The Toxic Substances Control Act (TSCA) Incinerator, located at ETPP, treated 1.4 million pounds of waste in FY 2007 (1.24 million pounds of liquid waste and 174,000 pounds of solid waste).

This amount represents the most waste treated in a fiscal year since 1999—double the annual average for the preceding five years. As of the end of FY 2007, the incinerator had operated 629 days since the last recordable injury and 1,462 days since the last lost workday injury. DOE is planning to incinerate approximately 2.3 million pounds of waste in the TSCA Incinerator in FY 2008.

The TSCA Incinerator is a one-of-a-kind thermal treatment unit. It plays a key role in treatment of radioactive PCB and hazardous wastes (mixed wastes) from the Oak Ridge Reservation, as well as other facilities across the DOE complex, thus facilitating compliance with regulatory and site closure milestones.



Disposal Continues in Waste Facility, Landfills

The on-site CERCLA Waste Facility, located in Bear Creek Valley, is used for disposal of waste resulting from CERCLA cleanup actions on the Oak Ridge Reservation.

The CERCLA Waste Facility is an engineered landfill that accepts low-level radioactive and hazardous wastes in accordance with specific Waste Acceptance Criteria under an agreement with state and federal regulators.

During FY 2007, the CERCLA Waste Facility operations collected, analyzed, and dispositioned approximately 1,989,000 gallons of leachate and 916,000 gallons of contact water at the ORNL Liquids and Gases Treatment Facility.

An additional 4 million gallons of contact water were collected and analyzed, and after determining that the volumes met the release criteria, were released to the sediment basin. The operations also effectively controlled site erosion and sediments.

The CERCLA Waste Facility received 9,186 truckloads of waste accounting for 104,062 tons during FY 2007. Projects that have disposed of waste at the CERCLA Waste Facility include the following:

- DWI 901 Site Remedial Action Project;
- ETPP Scrap Removal Project;
- ETPP Main Plant Facilities including K-1085, Balance of Site Labs, K-1070-B Burial

Ground, and Duct Island Soil Mounds;

- Melton Valley Weir Cleanout Project; ETPP D&D House-keeping Project;
- ETPP D&D Project, including Buildings K-1420 and K-1401;
- K-25/K-27 D&D Project; and
- MSRE Debris Project at ORNL.

Concurrent with the activities at the CERCLA Waste Facility, DOE also operates solid waste disposal facilities located near the Y-12 Complex, called the Oak Ridge Reservation Sanitary Landfills.

In FY 2007, more than 109,000 yd³ of industrial, con-

struction/demolition, classified, and spoil material waste were disposed.

To keep landfill capacity ahead of the demand, Area IV at Construction Demolition Landfill VII became available for use in early FY 2007. This expansion provides an additional 336,000 yd³ of capacity to support the accelerated cleanup program, as well as the other sanitary waste generators on the Oak Ridge Reservation.

The CERCLA Waste Facility and the Oak Ridge Reservation landfills are serving the disposal needs of the Oak Ridge Reservation cleanup program as well as the active missions of the Y-12 Complex and ORNL.



Disposal of DWI waste at the CERCLA Waste Facility

Waste Facility Expansion Planned

Waste disposal operations continued in the first phase of CERCLA Waste Facility expansion during FY 2007, placing waste in Cell 3, while Cell 4 currently remains unused. As waste placement continues toward Cell 4, focus will be shifted to the final build-out of the facility. While the design for Cell 5 is complete and approved by the regulators, construction is not expected to begin until FY 2009.

Cell 5 will add 500,000 yd³ of capacity to the previous 1,200,000 yd³ capacity, bringing the total airspace at the facility to the ROD-approved limit of 1,700,000 yd³. The design of Cell 5 incorporates the lessons learned from both the initial construction and the first phase of expansion of the facility. Timing for the start of Cell 5 construction will depend on how quickly the existing capacity is consumed as the accelerated cleanup program continues.



CERCLA Waste Facility

Reservation Wastewater Treated

During FY 2007, the National Nuclear Security Administration program at the Y-12 Complex treated 16.6 million gallons of ground/sump water at the Groundwater Treatment Facility, East End Mercury Treatment System, Central Mercury Treatment System, and East End Volatile Organic Compound System.

The East End Mercury Treatment System was decommissioned in December 2006 after the sump water being treated was rerouted to the Big Spring Water Treatment System. The East End Mercury Treatment System was demolished and disposed.

At the Big Spring Water Treatment System, 119.8 million gallons of ground/sump water was processed. In addition, approximately 1 million gallons of methanol-contaminated ground/sump water that was put into inventory in the West End Tankage in FY 2006 was completely dispositioned by controlled metering of the water into the Oak Ridge sewage treatment plant.

The West End Treatment Facility and the Central Pollution Control Facility at the Y-12 Complex pro-



Big Spring Water Treatment System

cessed about 1 million gallons of wastewater, primarily in support of National Nuclear Security Administration operational activities. This wastewater included hazardous materials such as cyanide, mercury, cadmium, chromium, and uranium. The hazardous materials end up in the sludge that is generated from wastewater treatment. The sludge is disposed off-site.

At ETPP, the Central Neutralization Facility treated more than 15 million gallons of wastewater in FY 2007. The facility is ETPP's primary wastewater treatment facility and processes both hazardous and nonhazardous waste streams arising from multiple waste treatment facilities and remediation projects. The facility removes heavy metals and suspended solids from the wastewater, adjusts pH, and discharges the treated effluent into the Clinch River. Sludge from the treatment facility is treated, packaged, and disposed off-site. Plans are to provide continued wastewater treatment for ETPP at CNF and/or at the Waste Water Treatment System.

At ORNL, approximately 118 million gallons of wastewater were treated and

released at the Process Waste Treatment Complex. In addition, the liquid LLW evaporator at ORNL treated 92,000 gallons of such waste. A total of 2.3 billion cubic meters of gaseous waste were treated at the ORNL 3039 Stack Facility. These waste treatment activities supported both EM and Office of Science mission activities in a safe and compliant manner during FY 2007.



Central Neutralization Facility

Wastes Being Processed for Disposition

All of the subprojects under Waste Disposition Project were performed with no transportation, environmental, or radiological incidents during FY 2007. These subprojects include managing newly generated waste from UT-Battelle, managing waste storage facilities at ORNL and ETPP, managing treatment and disposal of RCRA-regulated mixed waste, and managing TRU waste.

A total of 1,500 containers of contact-handled TRU waste drums were prepared for transfer to the TRU Waste Processing Center (TWPC). Preparation included remotely installing filtered vents and sample ports and analyzing headspace gas samples to remove the hazard of hydrogen gas in the drums prior to transfer. Approximately 600 of the 1,500 drums were prepared and safely transferred to TWPC. Several process improvements were implemented during the year, resulting in an increase of more than 150% in throughput of prepared drums (from 20 drums per week to more than 50). Additionally, the project began preparations for transfer of remote-handled shielded containers of TRU waste in FY 2008. Approximately 350 containers of remote-handled TRU in storage that will be transferred to TWPC for processing during the next 5 years.

Approximately 36 cubic meters of newly generated mixed waste that were picked up from UT-Battelle in FY 2006 were shipped for treatment and disposal in FY 2007, in addition to approximately

3 m³ that were picked up in FY 2007. Approximately 8 m³ of newly generated mixed waste picked up in FY 2007 from UT-Battelle are being staged for shipment for treatment and disposal in FY 2008.

Approximately 700 m³ of newly generated low-level waste were picked up from UT-Battelle in FY 2007 and placed into storage for disposal in FY 2011.

Mixed low-level waste being prepared for shipment



Facility Preparing for RH-TRU Processing

In 1998, DOE entered into a fixed-price privatization contract with Foster Wheeler Environmental Corporation (FWENC) to construct, operate, decontaminate, and decommission a waste processing facility, which is now referred to as the TRU Waste Processing Center.

Construction of the facility was completed in FY 2004. On September 12, 2006, a new cost-plus-fixed-fee contract was signed. Because of the many uncertainties about the waste characteristics and changing requirements, this type of contract is deemed more suitable.

The new contract includes initiation of processing and packaging for the two remaining waste streams stored at ORNL—remote-handled (RH) solids/debris and RH sludge—for transportation to and disposal at the Nevada Test Site

or the Waste Isolation Pilot Plant (WIPP) in New Mexico.

The facility was designed and constructed to treat and dispose 900 m³ of RH sludge, 550 m³ of RH-TRU/alpha LLW solids, 1,600 m³ of RH LLW supernate, and 1,000 m³ of contact-handled (CH) TRU/alpha LLW solids currently stored in Melton Valley.

The forecast for waste quantities to be processed at the TWPC has been updated to include the latest estimates: 2,000 m³ of RH sludge, 700 m³ of RH-TRU solids, and 1,500 m³ of CH-TRU solids.

Supernate processing was completed in FY 2004. In 2005, FWENC prepared the facility, safety documentation, and procedures for CH-TRU waste processing. CH-TRU processing started

December 2005. By September 30, 2007, approximately 200 m³ had been processed.

Acceptance of RH-TRU waste at the WIPP has been pending the outcome of permitting actions by DOE with the state of New Mexico. The revised permit approving RH-TRU disposal at WIPP was

signed on October 16, 2006, by the state of New Mexico. DOE is now preparing the facility for start of operations for processing RH-TRU debris. RH-TRU debris operations are expected to begin in February 2008.



Waste drums containing mixed low-level waste are being prepared for safe transport to their final repository

Public Involvement

Oak Ridge Reservation

Involvement Includes New Plan, Remediation Report

FY 2007 was a significant year for public involvement on the Oak Ridge Reservation. DOE and stakeholders updated the document "Public Involvement Plan for CERCLA Activities on the U.S. Department of Energy Oak Ridge Reservation." This document, which is updated every three years, provides guidance on how the public can become involved in Reservation remedial decisions. Sessions were held with the public and local stakeholder groups to make the document more user-friendly.

Another public involvement initiative was the release of the Remediation Effectiveness Report/Five Year Review and a public meeting on the document held in conjunction with the Oak Ridge Site Specific Advisory Board (ORSSAB).

The Remediation Effectiveness Report is produced annually, and every five years a comprehensive review required under CERCLA is completed.

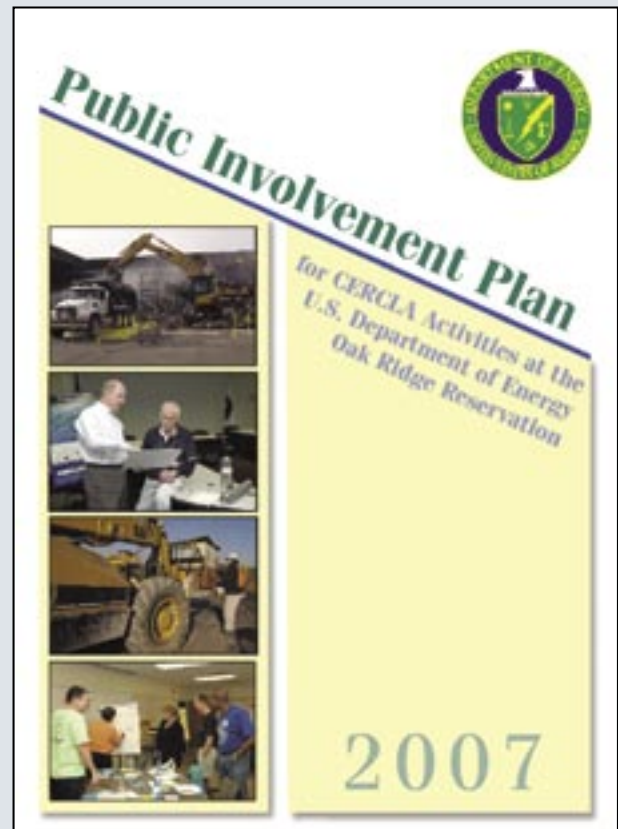
While the annual report evaluates if the remedy is working as planned, the Five-Year Review evaluates whether that chosen remedy is still effective and appropriate under today's conditions. It also reevaluates the protectiveness of the cleanup decisions.

The public meeting, held May 2007, included a presentation of the key conclusions of the Report as well as a poster session in which individuals could pose questions to project personnel. The format of the meeting was largely based on recommendations from the ORSSAB.

DOE also provide information and sought input from the public on a variety of other initiatives in FY 2007, including the following:

- Environmental Assessment to evaluate the potential environmental impacts of processing uranium-233 and the Building 3019 Complex shutdown at Oak Ridge National Laboratory,
- Permit renewal for transuranic storage areas and the Transuranic Waste Processing Center,
- Covenant Deferral Requests for ETP property, and
- Modifications of waste permits for Oak Ridge Reservation facilities.

Other Public Involvement initiatives included the monthly distribution of *Public Involvement News*, distribution of the FY 2006 version of *Cleanup Progress*, and updates of project fact sheet that are made available at the DOE Information Center and other venues.



ORSSAB Provides Input on Several Issues

The ORSSAB posted several key accomplishments in FY 2007 in its mission to provide informed advice and recommendations to DOE on its Oak Ridge EM program and to involve the public in environmental decision-making. ORSSAB is an independent, volunteer, federally appointed citizens' panel formed in 1995.

Melton Valley Closure

For many years the Melton Valley burial grounds posed the highest risk at the Oak Ridge Reservation to human health and the environment. As a result of more than 50 years of operation, production, and research activities at Oak Ridge National Laboratory, a legacy of disposal sites, contaminated facilities, and

areas of secondary contamination were spread over 160 acres of the watershed's 1062 acres.

DOE's cleanup project for the valley included a wide array of complicated and difficult activities, such as hydraulic isolation through installation of multilayer caps; removal, treatment, and disposal of retrievable transuranic waste; and in situ grouting. DOE has completed remedial actions in the valley, bringing the project to a close and ending a decade of involvement and oversight by ORSSAB.

Beginning in January 1998 with its "End Use Recommendation for the Disposal Areas in Melton Valley," the board made 20 recommendations to DOE related to various aspects

of Melton Valley cleanup. An inestimable number of hours were devoted by the board members in studying, debating, and writing recommendations on numerous issues related to the project and the acceptable end state for the area.

The remediation work was a huge undertaking that addressed 219 release sites over the course of six years at a cost of \$360 million. It could have cost as much as \$1.6 billion had all the waste been removed and shipped off site, but the board played an instrumental role in the decision to leave some relatively short-lived contamination in place in order to save taxpayers millions of dollars.

FY 2008 ORSSAB members, liaisons, and student representatives. Seated, left to right: Mike Haygood, Gloria Mei, Sondra Sarten, Rhonda Bogard, Hubert Gibson (Student Representative), Jan Teague. Standing, left to right: Bill Bass, John Owsley (TDEC Liaison), Pat Halsey (DOE Federal Coordinator), Steve Dixon (Vice chair), Ted Lundy (Secretary), Bob Olson, Kevin Westervelt, Dave Adler (DOE Liaison), Lance Mezga (Chair), David Martin, Charles Jensen, David Branch, Ron Murphree, Darryl Bonner, Steve McCracken (DOE Deputy Designated Federal Officer), Ben Adams. Not pictured: John Coffman, Ashlyn Hall (Student Representative), Tim Myrick, Steve Stow, Connie Jones (EPA Liaison).



Independent Verification

In early 2007 the fruits of an ORSSAB recommendation began to be realized. Millions are being spent at ETPP to dismantle scores of old buildings and prepare the site for eventual use as a private industrial park. But how receptive will industry be to locating in an area where DOE generated a plethora of hazardous and radioactive waste materials? Will companies be willing to invest in a site without assurance that the land and any remaining buildings available for lease are free of contaminants?

One way to assuage such concerns is to conduct an independent verification that cleanup requirements have been met and that the land and buildings are safe to use.

ORSSAB investigated the need and use of independent verification at ETPP and crafted a recommendation to DOE to employ the process at the site. DOE accepted that recommendation and contracted the Oak Ridge Institute for Science and Education to do the work. DOE has recently approved the institute's statement of work, as well as funding of \$234,000 per year for three years.

Many in the community have stated that reindustrialization is the key to success at ETPP, and through this ORSSAB initiative an important step is being taken to help achieve that success.

Oral History Initiative

In Spring 2007, ORSSAB formed a subcommittee to explore the possibility of facilitating an oral history program for the Oak Ridge area. This history contains invaluable information to the EM program when determining the scope and the data necessary to approach areas of the reservation requiring remediation or in determining if an area does not require remediation.

About 275 oral history interviews have been conducted to date with Oak Ridge scientists, engineers, community leaders, and residents, but there is no central location housing all of the existing tapes, and no mechanism exists to manage an active oral history program in terms of cataloguing and transcribing tapes, identifying and interviewing people, and providing access to material to researchers and other interested parties.

The subcommittee has begun looking into funding options and how other DOE sites similar to Oak Ridge have conducted or are conducting oral history programs.

In addition, the subcommittee, along with the Oak Ridge Public Library, organized the first in a series of workshops on October 11, 2007, that brought together many groups and individuals interested in preserving Oak Ridge history. The purpose of the workshop was to help resolve several issues, including:

More than 30 people representing various organizations in Oak Ridge attended a workshop to discuss ways to organize a comprehensive oral history program related to the DOE Oak Ridge Reservation.



- What is the definition of an oral history?
- What are sources of funding?
- Should all oral histories be housed at one location along with the transcripts and other relevant files?
- Should a “permanent” administrative group/advisory committee be formed to oversee the oral history program, and if so, who?
- What existing regulations/legislative acts control or influence an oral history program?
- Who are the individuals who need to be interviewed in the near future?
- What format of the end product will be most desired and easy to access?
- What organization will handle transcribing oral histories that have not yet been transcribed?

ORSSAB’s work on the oral histories program is an important step in bringing cohesion to the various interests in the community on an issue of importance not only to the public but to the DOE Environmental Management program as well.

Public Involvement Plan

In 2007, DOE began working on an update of the Public Involvement Plan, which is required by CERCLA to be updated every three years.

Two workshops were held with the public to work directly with DOE on this plan. ORSSAB also supplied numerous comments and suggestions, which were incorporated into the final document.

Remediation Effectiveness Report/CERCLA Five-Year Review

DOE is spending hundreds of millions of dollars in Oak Ridge each year cleaning up environmental contamination left from decades of nuclear enrichment and other activities. But how do you know it’s working?

The answers lie in the Remediation Effectiveness Report/CERCLA Five-Year Review, as discussed in the article on p. 34.

Because the Five-Year Review is so important, ORSSAB issued its “Recommendations on Logistics for a Public Meeting on the 2006 Remediation

Effectiveness Report and CERCLA Five-Year Review” in November 2006. The board made several general recommendations about conducting the meeting, as well as specific recommendations concerning the agenda and publicity. A primary suggestion was to use an ORSSAB monthly meeting as a forum for the public meeting.

DOE agreed and set the date for May 9, 2007. About 50 people attended the meeting, which gave local stakeholders an important forum to express their views on both the Remediation Effectiveness Report and the CERCLA Five-Year Review.

Decommissioning Workshop

On March 9, 2007, ORSSAB sponsored a day-long workshop on the decommissioning process to give members a better understanding of what it takes to deal with structures like the K-25 building. Seven board members attended, plus DOE and state personnel. The workshop was held at the DOE Information Center

Nine Recommendations Provided to DOE

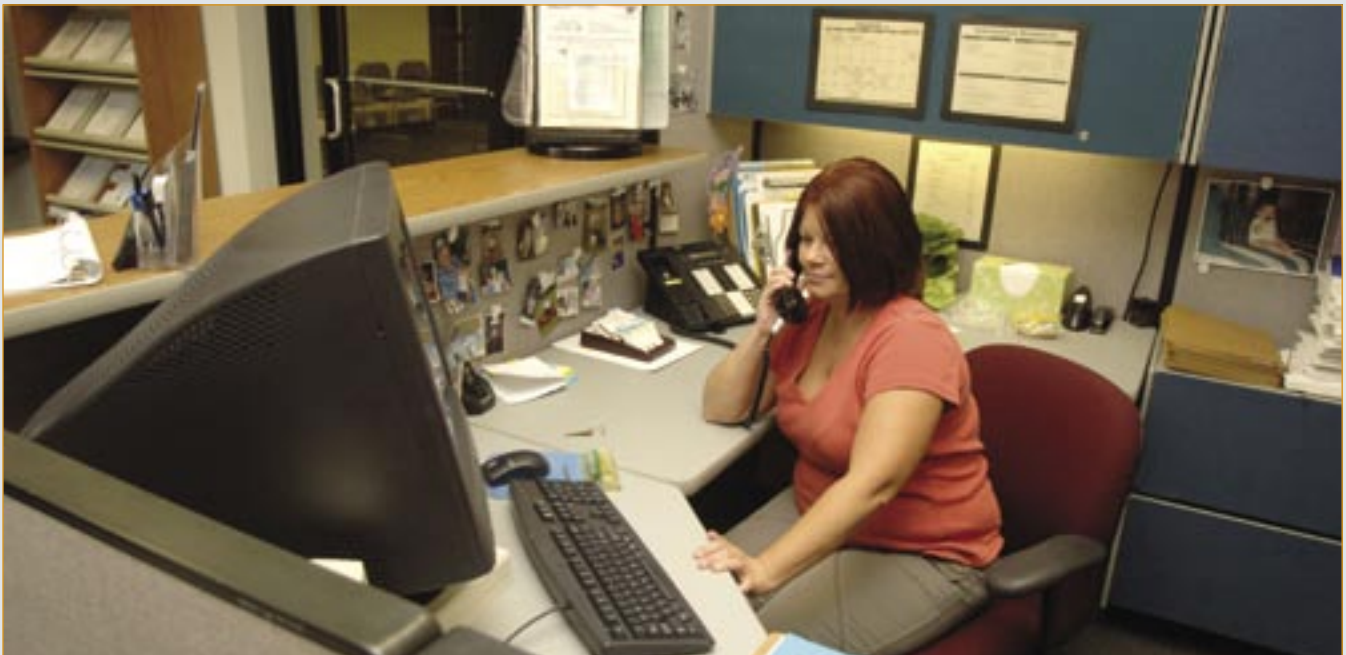
In FY 2007 the board generated several recommendations on cleanup-related issues, such as:

- the proposed method of accomplishment for decontamination and demolition of Buildings K-25 and K-27 at ETTP,
- long-term stewardship of contaminated sites, and
- the FY 2009 EM budget request.

ORSSAB also worked with the chairs of the other six SSABs that comprise the national EM SSAB to draft a joint recommendation to DOE on including public participation in technology development and deployment at DOE sites. Complete text of all the board’s recommendations is available online at www.oakridge.doe.gov/em/ssab/recc.htm.

DOE Information Center

The DOE Information Center, located at 475 Oak Ridge Turnpike, Oak Ridge, Tenn., is a one-stop information facility that maintains a collection of more than 40,000 documents involving environmental activities in Oak Ridge. The Center hosts various meetings, including the ORSSAB meetings, relevant to cleanup activities in Oak Ridge. Staff are available Monday through Friday, 8 a.m. to 5 p.m., to assist with your information needs. A web site is now available for users to search for information at the Center. Go to www.oakridge.doe.gov and click on "Public Activities." Select the "Online Catalog" to begin the search.



Phone: 865-241-4780

475 Oak Ridge Turnpike

www.oakridge.doe.gov/info_cntr

Information Resources

DOE Information Center
475 Oak Ridge Turnpike
Oak Ridge, Tennessee 37830
Phone: (865) 241-4780
Fax: (865) 574-3521
Hours 8 a.m. to 5 p.m., Monday – Friday

DOE Public Affairs Office
(865) 576-0885

DOE-ORO Public Information Line
1-800-382-6938

Oak Ridge Site Specific Advisory Board
(865) 241-4583, (865) 241-4584
1-800-382-6938

Tennessee Department of Environment
and Conservation
(865) 481-0995

U.S. Environmental Protection Agency
Region IV
1-800-241-1754

Agency for Toxic Substances and
Disease Registry
1-888-422-8737

Internet Sites

DOE Main Web Site	www.energy.gov
DOE-ORO Home Page	www.oakridge.doe.gov
DOE-ORO Environmental Management Program	www.oakridge.doe.gov/external (Click on "Programs," then select "Environmental Management")
Oak Ridge Site Specific Advisory Board	www.oakridge.doe.gov/em/ssab
Oak Ridge Accelerated Cleanup	www.bechteljacobs.com/doeclean/
Agency for Toxic Substances and Disease Registry	www.atsdr.cdc.gov
U.S. Environmental Protection Agency	www.epa.gov/region4/
Tennessee Department of Environment and Conservation	www.state.tn.us/environment/
DOE Information Center	www.oakridge.doe.gov/info_cntr

Commonly Used Acronyms

EM Program

AM	action memorandum
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CH	contact-handled
D&D	decontamination and demolition
DOE	U.S. Department of Energy
DWI	David Witherspoon Inc.
EM	Environmental Management
EPA	U.S. Environmental Protection Agency
ETTP	East Tennessee Technology Park
FY	fiscal year
HFIR	High Flux Isotope Reactor
HRE	Homogenous Reactor Experiment
ISG	in situ grouting
ISV	in situ vitrification
LLW	low-level waste
MSRE	Molten Salt Reactor Experiment
ORNL	Oak Ridge National Laboratory
ORSSAB	Oak Ridge Site Specific Advisory Board
PCB	polychlorinated biphenyl
PCCR	Phased Construction Completion Report
RCRA	Resource Conservation and Recovery Act
RH	remote-handled
ROD	Record of Decision
SARM	Southern Appalachian Railway Museum
SWSA	Solid Waste Storage Area
TDEC	Tennessee Department of Environment and Conservation
TRU	transuranic
TSCA	Toxic Substances Control Act
TWPC	TRU Waste Processing Center
UEFPC	Upper East Fork Poplar Creek
UF ₆	uranium hexafluoride
WIPP	Waste Isolation Pilot Plant in New Mexico



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For more information, contact the DOE Public Affairs Office at (865) 576-0885.