



## Incinerator in safe shutdown mode, awaiting demolition

The Toxic Substances Control Act (TSCA) Incinerator is now in safe shutdown mode after all rinsing and closure activities were recently completed.

The incinerator, located at East Tennessee Technology Park (ETTP), was shut down in December 2009 after burning more than 35 million pounds of liquid and solid waste since becoming operational in 1991. When it was built, it was only supposed to operate for about five years.

It was finally shut down after accepting waste from U.S. Department of Energy (DOE) sites from across the nation, even some from Hawaii. Those waste streams now go to outside contractors.

All fieldwork has been completed, and the last boxes of waste were shipped from the site last month. All chemicals have been removed, and all RCRA-required actions have been completed. Components such as piping were all either triple-rinsed or removed.

Other activities performed included cleaning, rinsing, and filling multiple sumps, and removing and disposing of the carbon vessels, which were part of the water management system. With completion of these activities, the facility will be under surveillance and maintenance until demolition.

Because the TSCA Incinerator processed polychlorinated biphenyl (PCB) waste as well as hazardous waste regulated under the Resource Conservation and Recovery Act, it had to meet strict closure standards.

One issue was rainwater runoff, which became contaminated with radiological materials and PCBs. It was gathered in sumps and sent to the Central Neutralization Facility (CNF) for treatment. CNF is ETTP's wastewater treatment plant. Since CNF is also under-



Carbon vessels being removed from the TSCA Incinerator site

going final cleanup, the rainwater needed to reach a point where it could be released without treatment.

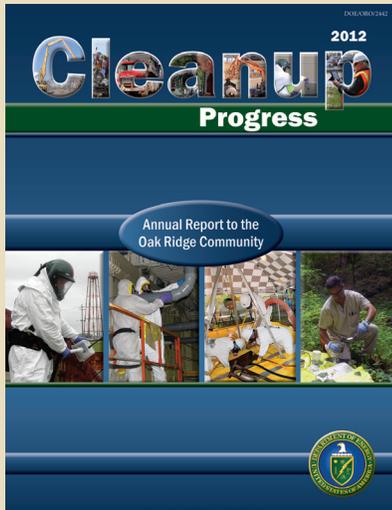
The equipment and areas were decontaminated, and fixatives were applied to exposed areas to ensure any remaining contaminants stayed in place. Rainwater collected in the area was then sampled to ensure it met the strict criteria.

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## Cleanup report available on-line and at Information Center



DOE's annual report on the progress of cleanup on the Oak Ridge Reservation will be available in early January. It will be posted on the web and placed at the DOE Information Center, 1 Science.gov Way, Oak Ridge.

The document details cleanup efforts during FY 2012 at all three DOE Oak Ridge Reservation sites: ETPP, Oak Ridge National Laboratory, and the Y-12 National Security Complex. It is produced by URS | CH2M Oak Ridge LLC (UCOR), DOE's cleanup contractor for the Oak Ridge Reservation.

The document will be posted on the web at [www.ucor.com/cleanup.html](http://www.ucor.com/cleanup.html). If you would like a hard copy of the report, you may pick up a free copy at the DOE Information Center.

"Tremendous cleanup progress was made in 2012 at all three sites," said Mark Whitney, manager of the Oak Ridge Site Office of Environmental Management. "This document does a great job of presenting the results of our and our contractors' efforts as we work to make Oak Ridge a cleaner, safer place to live and work."



As part of DOE's SunShot Initiative, which is working to make solar energy competitive with other forms of energy without subsidy by the end of the decade, DOE in December announced a \$29 million investment in projects that will help advance affordable, reliable clean energy for U.S. families and businesses. These projects are aimed at improving grid connection and reducing installation costs through innovative plug-and-play technologies and reliable solar power forecasts.

"The price of solar panels has fallen dramatically in recent years, but we also need to reduce the cost and time required to actually install them in homes and businesses, and help utility companies better integrate renewable energy into the grid," said Energy Secretary Steven Chu. "Projects like these can help reduce the cost of solar power and make it easier for American families and businesses to access clean, affordable energy."

**Plug-and-Play Photovoltaic Systems:** DOE is investing \$21 million investment over five years to design plug-and-play photovoltaic (PV) systems that can be purchased, installed, and made operational in one

day. Plug-and-play PV systems will make the process of buying, installing, and connecting solar energy systems faster, easier, and less expensive for homeowners. This effort is part of the Department's broader initiative to bring down "soft" or non-module hardware costs, which now account for a majority of the total costs of residential systems.

**Reliable Solar Forecasting:** DOE is also investing \$8 million in two projects to help utilities and grid operators better forecast when, where, and how much solar power will be produced at U.S. solar energy plants. Enhanced solar forecasting technologies will help power system operators to integrate cost-competitive, reliable solar energy into the electricity grid and provide clean, renewable energy.

The SunShot Initiative is a collaborative national effort to make solar energy cost-competitive with other forms of energy by the end of the decade. Inspired by President Kennedy's "Moon Shot" program that put the first man on the moon, the SunShot Initiative has created new momentum for the solar industry by highlighting the need for American competitiveness in the clean energy race.

## TSCA Incinerator (continued from p. 1)

Curbs and other areas that tended to collect water were breached so water would flow instead of collecting. Areas that tended to collect puddles were leveled off with concrete or grout. Seeps were found and fixed. At that point, the sumps could be filled.

Several sumps in the area had to be addressed. Water went from the incinerator into 10-foot-deep sumps. During the cleanup process, they were rinsed from the outside, then people entered the sumps and put quick-solid materials into the wet material so it could be easily removed. It was then placed into drums. Then the sumps were pressure washed.

“We took concrete samples from the bottom of the sumps and got proof that we’re already meeting the ETPP’s final site closure criteria,” said Mary Magleby, project manager with UCOR. “This means that no future work will have to be done on these sumps.”

Two crews have worked hard to get the incinerator to its current state. A crew of chemical operators did all the work through the triple rinsing stage. A crew of deactivation and decommissioning (D&D) workers did the filling and final pump removal. The D&D crew is now working on the K-27 project, while the chemical crew is at CNF.



TSCA Incinerator

### Contact us

If you have any comments or questions about this publication, please contact DiAnn Fields, DOE Public Affairs, at (865) 574-3612. If you would like to receive this publication by email, please send an email to [wayne.mckinney@ettp.doe.gov](mailto:wayne.mckinney@ettp.doe.gov) and type “Add to PIN Distribution” in the subject line.

## New CERCLA documents

Available at the DOE Information Center

DOE/OR/01-2563: *Environmental Baseline Survey Report for the Proposed Title Transfer of Parcel ED-13 at the East Tennessee Technology Park, Oak Ridge, Tennessee [Final for Regulator Concurrence]*

DOE/OR/01-2524&D3: *Fiscal Year 2011 Phased Construction Completion Report for Poplar Creek at the East Tennessee Technology Park, Oak Ridge, Tennessee*

DOE/OR/01-2598&D1: *Removal Action Report for the Long-Term Reduction of Hexavalent Chromium Releases into Mitchell Branch at the East Tennessee Technology Park, Oak Ridge, Tennessee*

## DOE, EPA release 2013 Fuel Economy Guide

DOE and the U.S. Environmental Protection Agency (EPA) have released the 2013 Fuel Economy Guide, giving consumers clear and easy-to-read information to help them choose the most fuel-efficient and low greenhouse gas emitting vehicles that meet their needs.

The 2013 models include efficient and low-emission vehicles in a variety of classes and sizes, but notable this year is the growing availability of hybrids and the increasing number of electric vehicles.

“The Fuel Economy Guide gives consumers easily accessible information to help them choose the vehicle that’s right for them,” said Energy Secretary Steven Chu. “Fuel-efficient vehicles help American families save money at the pump, continue to deliver on vehicle performance, and help reduce our dependence on foreign oil while limiting carbon pollution.”

This year’s guide gives consumers a broad range of information that they can use to select their next fuel efficient vehicle. This year, for the first time, DOE and EPA have added a second top ten list of most efficient vehicles—separating advanced technology vehicles from conventional gasoline and diesel vehicles. Electric and plug-in hybrid electric models are the most fuel-efficient and lowest-emission vehicles available today and are becoming more common. At the same time, consumers may still look up the con-

ventional gasoline and diesel models that offer superior fuel efficiency.

The 2013 guide provides an estimated annual fuel cost for each vehicle. The estimate is calculated based on the vehicle’s miles per gallon rating and national estimates for annual mileage and fuel prices. The online version of the guide allows consumers to enter their local gasoline prices and typical driving habits to receive a personalized fuel cost estimate. The 2013 guide also includes a greenhouse gas rating for each model.

More information, including a complete version of the guide and details on the fuel economy labels, can be found at [www.fueleconomy.gov/](http://www.fueleconomy.gov/) and at <http://fueleconomy.gov/m/> for mobile devices.



### ORSSAB to meet

The Oak Ridge Site Specific Advisory Board (ORSSAB) will meet at 6 p.m., Wednesday, January 9, at the DOE Information Center, 1 Science.gov Way, in Oak Ridge. The presentation will be an update on East Tennessee Technology Park cleanup status.

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**Internet:** [www.oakridge.doe.gov/em/ssab/](http://www.oakridge.doe.gov/em/ssab/)



Artist's rendering of Uranium Processing Facility to be built at the Y-12 Complex

## Site readiness begins for Uranium Processing Facility

The National Nuclear Security Administration will begin preparing the site for the construction of the nation's new Advanced Uranium Processing Facility (UPF) this spring.

UPF will replace the original uranium processing facilities—most notably Y-12's Building 9212, which has served as the nation's uranium hub for nearly 70 years.

"It is very difficult to maintain our nation's nuclear security posture with a deteriorating World War II infrastructure," said John Eschenberg, UPF federal project director.

"Nuclear facilities are built to rigid codes and standards that evolve over time with new improvements and requirements. That's why most nuclear facilities aren't operated for more than 40 years," Eschenberg said. "9212 was built as part of the Manhattan Project so while improvements are constantly being made to ensure the safety of our workers and operations, it's not cost effective or feasible to attempt to modernize these facilities."

UPF is essential to ensuring our nation's nuclear deterrent and fueling our Navy's submarines. And as we continue to retrieve old nuclear weapons, the new UPF will serve an integral role in NNSA's commitment

to dismantle and process the nuclear material from these weapons for use in peacetime missions, such as fueling our next generation commercial power reactors and in research reactors for medical isotope production.

Site readiness for the project is set to begin in the spring. The U.S. Army Corps of Engineers was awarded a significant portion of this work, which includes the relocation of Bear Creek Road, movement of some underground utilities, and the extension of a nearby haul road.

While looking forward to showing physical progress on the project, Eschenberg is more keenly focused on continuing to drive the maturity of the facility design.

"It's essential to deliver a high-confidence cost and schedule baseline before we move into construction," said Eschenberg. "This will yield huge dividends to the overall success of the project."

UPF employs about 650 workers. At the peak of construction, 1,500 are expected to be needed on the project. UPF will be the largest construction project in the state of Tennessee's history and the largest capital investment since World War II.

# January 2013

All meetings held in Oak Ridge unless otherwise noted.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>Acronyms</b> AMSE American Museum of Science and Energy DOEIC DOE Information Center ORSSAB Oak Ridge Site Specific Advisory Board		<b>1</b>	<b>2</b>  Public Warning Siren Test, 11 a.m. to 2 p.m.	<b>3</b>	<b>4</b>	<b>5</b>
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b> Oak Ridge Business Safety Partnership Forum 8 a.m., AMSE <hr/> ORSSAB Meeting 6 p.m., DOEIC	<b>10</b>	<b>11</b>	<b>12</b>
<b>13</b>	<b>14</b>	<b>15</b>  ORSSAB Stewardship Committee 5:30 p.m., DOEIC	<b>16</b> DOE-ORO Dr. Martin Luther King Jr. Commemorative Program 10:30 a.m., AMSE <hr/> ORSSAB Environmental Management Committee 5:30 p.m., DOEIC	<b>17</b>	<b>18</b>	<b>19</b>
<b>20</b>	<b>21</b>  Dr. Martin Luther King Jr. Day	<b>22</b>  ORSSAB Public Outreach Committee 5:30 p.m., DOEIC	<b>23</b>	<b>24</b> ORSSAB Finance & Process Committee 5 p.m., DOEIC <hr/> ORSSAB Executive Committee 5:30 p.m., DOEIC	<b>25</b>	<b>26</b>
<b>27</b>  30	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>Note:</b> Please call the ORSSAB Office at (865) 241-4583 or 241-4584 to verify that ORSSAB committee meetings will be held as these are subject to change.	
U. S. Department of Energy • Oak Ridge Office Public Involvement Calendar						

## Advisory Board meets to discuss EM's cleanup future

EM Principal Deputy Assistant Secretary Tracy Mustin met with the Environmental Management Advisory Board (EMAB) in December on several topics, including optimizing resources for EM's technology challenges.

"We have the opportunity to benefit from your expertise and we look forward to working with you," Mustin said during the meeting with the independent, volunteer advisory board that offers EM advice on complex-wide issues involved in the cleanup. "We really do appreciate the insights and the inputs and guidance you all provide to us as we tackle some really important challenges in the program."

EMAB provides reports and recommendations on planning, policy development, and budgeting to enhance management of EM's environmental challenges.

Mustin had also joined EMAB for its meeting in Idaho Falls this past spring. There, the board marked its 20th year of service to EM.

In addition to board recommendations on technology issues, Mustin told the EMAB members that she and EM Senior Advisor David Huizenga spent time during the past year and a half listening to members of the EM workforce to learn how EM can improve as an employer.

Noting the range of the board members' expertise in areas including the private sector and state government, Mustin asked for input on ways EM can increase its effectiveness, find opportunities to motivate employees, and recognize their work to "ensure we are getting the best from everybody."

Mustin also briefed the board on significant EM achievements in FY 2012.