



*Many Voices Working for the Community*

# Oak Ridge Site Specific Advisory Board

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July 10, 2008

Mr. Steve McCracken  
Assistant Manager for Environmental Management  
DOE-Oak Ridge Office  
P.O. Box 2001, EM-90  
Oak Ridge, TN 37831

Dear Mr. McCracken:

## **Recommendation 171: Recommendation on the Waste Information Management System**

At our July 9, 2008, meeting, the Oak Ridge Site Specific Advisory Board approved the enclosed recommendation.

We appreciate your consideration of this recommendation and look forward to receiving a response by October 9, 2008.

Sincerely,

A handwritten signature in black ink, appearing to read "Lance J. Mezga".

Lance J. Mezga, Chair

Enclosure

cc/enc: Dave Adler, DOE-ORO  
Mike Farmer, Roane County Mayor  
Doug Frost, DOE-HQ  
Christine Gelles, DOE-HQ  
Pat Halsey, DOE-ORO  
Connie Jones, EPA Region 4  
Rex Lynch, Anderson County Mayor  
James O'Connor, Oak Ridge City Manager  
Melissa Nielson, DOE-HQ  
John Owsley, TDEC



## Oak Ridge Site Specific Advisory Board Recommendation 171: Recommendation on the Waste Information Management System

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### Background

At its January 9, 2008, monthly meeting, the Oak Ridge Site Specific Advisory Board (ORSSAB) received a presentation titled “Low-Level/Mixed Low-Level (LLW/MLLW) Waste Disposition Strategy” from Christine Gelles, Director, Department of Energy (DOE) Office of Disposal Operations.

The main points of her presentation were:

- DOE’s Greater-Than-Class C Low-level Waste Disposition Environmental Impact Statement
- Environmental Management (EM) budget, planning, and project management
- EM waste disposition planning tools
- Oak Ridge waste disposition details and updates

As part of a complex-wide plan, Ms. Gelles said that Oak Ridge had been selected as a pilot project for deploying disposition planning tools. She said that Oak Ridge had been chosen because it has a good history and expertise in defining low-level waste streams in detail. With multiple program offices in Oak Ridge, the flexibility of the disposition planning tools can be tested.

Ms. Gelles reviewed the Oak Ridge LLW/MLLW disposition story. She said Oak Ridge disposition assets include the Environmental Management Waste Management Facility, the Toxic Substances Control Act Incinerator (TSCAI), and the Transuranic (TRU) Waste Processing Facility. She reviewed what had been accomplished in terms of disposal of legacy wastes, the planned operation of the TSCAI through 2009 and the programs at Y-12 and Oak Ridge National Laboratory (ORNL) for newly generated waste. Oak Ridge relies on on-site disposal sites, but also ships to the Nevada Test Site, to Utah, and to various commercial treatment firms. She later acknowledged the important role that local and on-site commercial firms in Oak Ridge play in complex-wide waste treatment.

Ms. Gelles explained the Oak Ridge LLW/MLLW Disposition Map. There were about 150 waste streams on the Oak Ridge Reservation (ORR), and all but about 25 had a fully defined waste disposition path. For every waste stream that has no path to disposal or has a path identified but with some impediments, the next step is to do risk identification and determine what it is about the waste stream that presents a programmatic risk.

Ms. Gelles explained the preliminary draft of the ‘8,000 Foot Story’ during her presentation. She said it was EM’s attempt to capture what has to happen to disposition of wastes that are coming out of each of the projects at Oak Ridge. It is organized by the major program baseline summaries, as well as some lower-level sub-project definitions to capture geographic areas or major facilities or major waste streams.

Ms. Gelles did an overview of TRU waste disposition. She said shipping Oak Ridge TRU waste to the Waste Isolation Pilot Plant (WIPP) is critical to keeping the pipeline to WIPP full. About 2,250 cubic meters of TRU waste is in the Oak Ridge inventory to be shipped to WIPP. What is not in the inventory is a possibility of TRU waste coming from the processing of uranium-233 from Building 3019 at ORNL. Contact-handled TRU was scheduled for shipping to begin in Spring 2008 and remote-handled TRU was scheduled for Summer 2008.

Ms. Gelles reviewed other waste challenges on the ORR. Those include wastes from the Molten Salt Reactor Experiment, the Shielded Transfer Tanks, and some pyrophoric material that was uncovered during remediation of Melton Valley. A team from DOE headquarters and Oak Ridge was being established to evaluate disposition alternatives for these waste streams.

Ms. Gelles concluded her presentation saying she welcomed comments on the waste disposition map.

### **Discussion**

The most tangible of the DOE efforts to develop waste disposition planning tools is the Waste Information Management System (WIMS) created by Florida International University's Applied Research Center for DOE. WIMS was developed to provide DOE Headquarters and site waste managers with the tools necessary to easily visualize, understand, and manage the vast volumes, categories, and problems of forecasted waste streams. WIMS meets this need by providing a user-friendly online system to gather, organize, and present waste forecast data from DOE sites. This system provides a method for identification of waste forecast volumes, material classes, disposition pathways, and potential choke points and barriers to final disposition. The system is publicly accessible via <http://wims.arc.fiu.edu/wims/>. New users must create a login account.

The ORSSAB Environmental Management Committee examined and discussed the system at its March 19, 2008, meeting. There was general consensus that the system had exceptional capability, especially if diligently maintained. There was particular interest in using the system to identify waste streams with no or unclear disposition pathway and to determine if different facilities were consistent in their assumptions about availability of treatment and disposal options.

### **Recommendation**

ORSSAB commends DOE and Florida International University for development of the Waste Information Management System and strongly recommends that it be periodically updated and improved. The following are suggestions to increase its usability as an information resource:

- Provide current status of planned updates and known data gaps.
- Consider better ways to provide more information about the waste streams so that users of the system can better understand and even propose solutions to underlying technical challenges.
- Identify the commercial facilities treating DOE waste streams as soon as the appropriate business arrangements can be disclosed. This will promote awareness and ultimately greater acceptance of the activities by local stakeholders.