



Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

March 14, 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 166: Recommendation on Preparing Future Explanations of Significant Differences

At our March 12 meeting, the Oak Ridge Site Specific Advisory Board approved the enclosed recommendation.

Based on a recent effort by DOE-Oak Ridge to produce an explanation of significant difference (ESD) regarding the management of leachate from the Environmental Management Waste Management Facility, we encourage DOE to be more careful in basing ESDs on facts rather than assumptions or expectations. Please see the background and discussion portions of the enclosed recommendation for details on the basis of this recommendation.

Thank you for considering our recommendation, and we look forward to receiving your written response by June 12, 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
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 166: Recommendation on Preparing Future Explanations of Significant Differences

Background

In June 2007, the Department of Energy-Oak Ridge Office (DOE-ORO) issued an information sheet explaining a proposed explanation of significant difference (ESD) to the Record of Decision (ROD) for the disposal of Oak Ridge Reservation (ORR) Comprehensive Environmental Restoration, Compensation and Liability Act of 1980 (CERCLA) waste (DOE/ORE/01-0791&D2).

The ROD, signed in November 1999, documents a decision by DOE, the Tennessee Department of Environment and Conservation and the Environmental Protection Agency to construct a disposal facility on the ORR to receive CERCLA waste generated on the ORR. The disposal facility, commonly known as the Environmental Management Waste Management Facility (EMWMF), has been accepting ORR CERCLA waste since May 2002.

The EMWMF is designed to receive low-level radioactive waste, hazardous waste as defined under the Resource Conservation Recovery Act (RCRA), waste as defined under the Toxic Substances Control Act of 1976, and mixed waste consisting of combinations of these waste types.

In accordance with RCRA requirements, if listed hazardous waste is disposed of at EMWMF, leachate derived from the listed waste must also be managed as listed waste. These requirements impose physical and administrative limitations on the storage, handling, treatment, and disposal of the liquid regardless of the actual constituent concentrations present in the waste or the associated risk.

Leachate from EMWMF is currently managed as nonradiological, nonhazardous waste and is transported to the Process Waste Treatment Center at Oak Ridge National Laboratory for treatment and disposal. Leachate is not currently a RCRA-listed waste by definition (i.e., no listed waste has yet been disposed of at EMWMF). However, any future receipt of potentially listed waste at the EMWMF may cause leachate from the EMWMF to be categorized as listed waste unless the leachate is shown to meet protective health-based limits.

The intent of the ESD is to ensure that, should a known or unknown future listed waste be disposed in the EMWMF, a mechanism is in place to allow the leachate to be evaluated and managed as nonhazardous waste and processed in an on-site treatment facility that is not permitted for treatment of RCRA-listed waste. Without this ESD in effect, the situation could potentially arise where the leachate would have to be trucked to a RCRA permitted off-site facility for treatment as a listed waste or stored on-site until a formal delisting process could be implemented.

Discussion

An assumption in the ROD was that existing ORR wastewater treatment facilities would be used to manage the EMWMF leachate and that no capital improvements would be required. The Central Neutralization Facility (CNF) at East Tennessee Technology Park is the only ORR wastewater treatment facility configured and permitted to treat RCRA-listed wastewater. At the time the CNF was currently in the process of closing and capital improvements to another existing ORR facility would be required to

manage RCRA-listed wastewater, or the wastewater would need to be transported off-site for treatment and disposal at a RCRA-permitted facility, resulting in increased cost and risk.

One purpose of the ESD was to reduce cost and risk by eliminating the need to transport RCRA-listed wastewater offsite. As stated above, the need for off-site treatment was based on the assumption that the CNF was to be closed. It now appears that the CNF may not be closing, thus negating, at least in part, the need for the ESD.

Recommendation

While the Oak Ridge Site Specific Advisory Board agrees that the establishment of a protocol for the evaluation and management of potentially RCRA-listed leachate generated by the EMWMF should be implemented, we have concerns that the justification for this ESD was based on an apparently incorrect assumption.

Although the ORSSAB is still supportive of the ESD, we caution DOE that decisions based on current or anticipated operation (or closure) of facilities outside of its control may lead to untenable positions. We ask that the foundation of future ESDs be grounded on hard science and facts, not the weak underpinnings of transient assumptions.