



*Many Voices Working for the Community*

# Oak Ridge Site Specific Advisory Board

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September 13, 2007

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

Dear Mr. McCracken:

**Recommendation 158: Recommendation on the EMWMF Explanation of Significant Difference for Leachate Management Information Sheet**

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

ORSSAB concurs with DOE's position and supports the concept described in the Explanation of Significant Difference Information Sheet. However, during our discussion of the recommendation we realized that the apparent failure to fully coordinate plans for closure of the Central Neutralization Facility with long-term operational needs of the Comprehensive Environmental Restoration, Compensation and Liability Act disposal facility early on highlights the need for better integrated program planning.

We appreciate your consideration of this recommendation and look forward to receiving your written response by December 12, 2007.

Sincerely,

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

Lance J. Mezga, Chair

Enclosure

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Steve McCracken

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cc/encl: Dave Adler, DOE-ORO  
Mike Farmer, Roane County Mayor  
Doug Frost, DOE-HQ  
Pat Halsey, DOE-ORO  
John Michael Japp, DOE-ORO  
Connie Jones, EPA Region 4  
John Kubarewicz, Bechtel Jacobs, Co.  
Rex Lynch, Anderson County Mayor  
James O'Connor, Oak Ridge City Manager  
Melissa Nielson, DOE-HQ  
John Owsley, TDEC



## Recommendation 158

### Oak Ridge Site Specific Advisory Board

### Recommendation on the EMWMF Explanation of Significant Difference for Leachate Management Information Sheet

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#### **Background**

As required by a Record of Decision (ROD) signed 2 November, 1999 by the Department of Energy (DOE), Tennessee Department of Environment and Conservation (TDEC) and the U.S. Department of Environmental Protection (EPA), a dedicated disposal facility was constructed on the Oak Ridge Reservation (ORR) to receive ORR Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) waste. The Environmental Management Waste Management Facility (EMWMF) has been in operation since May 2002 receiving CERCLA waste from ORR and three non-ORR Superfund sites. Although the ROD addressed management of the leachate collected from the EMWMF, it did not specifically address the regulatory status of the leachate. This Explanation of Significant Difference (ESD) for Leachate Management seeks to establish a methodology for evaluating and managing the leachate should, a known or unknown hazardous waste listed under the Resource Conservation and Recovery Act of 1976 (RCRA) be placed in the EMWMF.

#### **Discussion**

Leachate generated by the EMWMF is not currently managed as a RCRA hazardous waste because it has not exceeded any RCRA characteristic and no listed hazardous waste has been disposed at EMWMF. Currently the leachate is collected at each disposal cell and pumped to five aboveground, fiberglass-reinforced storage tanks. It is analyzed to ensure that it meets the waste acceptance criteria established by the Process Waste Treatment Complex (PWTC) at Oak Ridge National Laboratory, then hauled by tanker truck to the PWTC for final treatment and discharge. Treated wastewaters from PWTC are discharged under a Clean Water Act National Pollutant Discharge Elimination System (NPDES) discharge permit.

EMWMF is designed to receive RCRA-hazardous waste, and, given that a previous ESD modified the acceptance criteria for the facility to include classified waste streams<sup>1</sup>, the potential exists for a listed waste to be placed in the facility, which would alter the regulatory status of the leachate. While the ROD did not specifically address the regulatory status of the leachate, the cost analysis for the ROD assumed that all the leachate would be taken to the Central Neutralization Facility (CNF).<sup>2</sup> The CNF is being closed and no replacement is contemplated. Once this facility is closed, any RCRA wastewater would have to be hauled off-site to an approved treatment facility at great cost and increased risk to the public and the environment.

Analysis of the EMWMF leachate indicate contaminate concentrations well below health-based limits (HBLs) normally used by the EPA to determine hazardous listing and delisting decisions. Under this ESD, DOE will continue to conduct sampling and analysis of the leachate to validate compliance with the HBLs. DOE is asking that in the event that a RCRA-listed waste is placed in the EMWMF, the regulatory status of the leachate remain unchanged, i.e., non-hazardous, as long as the ongoing sampling and verification programs demonstrate that the leachate continues to meet all HBLs and the wastewater is

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<sup>1</sup> Explanation of Significant Difference for the Remedy in the Record of Decision for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Waste, Oak Ridge, Tennessee dated 2 May 2001

<sup>2</sup> DOE response to Envirocare comments, page 3-17, OU-13 Record of Decision for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Waste, Oak Ridge, Tennessee dated 1 November 1999

treated and discharged at PWTC or other ORR facilities operating under proper NPDES discharge permits.

**Recommendations**

The Oak Ridge Site Specific Advisory Board concurs with DOE's position and supports this Explanation of Significant Difference. DOE's protocol for the sampling, analysis, and management of the leachate originating from EMWMF appears reasonable and in compliance with the spirit of the governing regulations. However, the apparent failure to fully coordinate plans for the closure of the CNF with long-term operational needs of the CERCLA disposal facility early on highlights the need for better integrated program planning.

The ORSSAB supports the publication of the ESD information sheet.