Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

September 17, 2001

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

Dear Mr. Nelson:

Recommendations and Comments on the *Engineering Evaluation/Cost Analysis for the Decontamination and Decommissioning of the K-25 and K-27 Buildings at the East Tennessee Technology Park, Oak Ridge, Tennessee*, DOE/OR/01-1917&D2

At our September 12, 2001, meeting, the Oak Ridge Site Specific Advisory Board approved the enclosed recommendations and comments on the subject document.

We understand that the formal comment period for the document ended September 10, but as you are aware, the Board's document review process and meeting schedule made meeting this deadline impossible. We also understand that for the Department to extend the comment period until September 13, as we requested, would impact the project schedule. We ask, however, that the Department make a good-faith effort to consider our comments to the extent practicable.

In addition to our comments on the document, the Board has made several recommendations related to the converters and dispositioning of wastes to the Environmental Management Waste Management Facility. Since no further revisions to the EE/CA are anticipated, we request that these recommendations be addressed in the Action Memorandum for the Buildings K-25 and K-27 Decontamination and Decommissioning Project.

We appreciate your consideration of our requests and look forward to receiving your written response to our recommendations and comments.

Sincerely,

Luther V. Gibson, Jr.

Luther V. Gibson, Jr., Chair

Enclosure

cc: Pat Halsey, DOE-ORO
Connie Jones, EPA Region 4
John Owsley, TDEC
Mryna Redfield, DOE-ORO

Oak Ridge Site Specific Advisory Board
Recommendations & Comments
on the *Engineering Evaluation/Cost Analysis*
for the Decontamination and Decommissioning of the K-25
and K-27 Buildings at the East Tennessee Technology Park,
***Oak Ridge, Tennessee*, DOE/OR/01-1917&D3**

BACKGROUND

The K-25 and K-27 buildings at East Tennessee Technology Park (ETTP) have been proposed for demolition, based on their poor physical condition and the expense and risk of surveillance and maintenance activities. The demolition will be accomplished under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as a non-time-critical removal action. In accordance with the Secretarial Policy on the National Environmental Policy Act (NEPA) dated June 1994, NEPA values have been incorporated in the decisions and documents prepared for this CERCLA action. An Engineering Evaluation/Cost Analysis (EE/CA) for this project was issued for public review in July 2001.

Buildings K-25 and K-27 were constructed in 1943–1945 to supply enriched uranium for nuclear weapons production as part of the World War II Manhattan Project. Enrichment of uranium at that time was accomplished by gaseous diffusion, a process that pumped gaseous uranium hexafluoride (UF_6) through thousands of diffusion separator elements, thousands of pumps, and thousands of feet of piping. The gaseous diffusion cascade was permanently shut down in December 1987.

The preferred alternative for this project involves equipment removal, building demolition, and disposal of associated wastes. The demolition process will leave the basement slabs and retaining walls in place in a structurally sound condition. The slabs and underground soil and utilities will be addressed in a future CERCLA record of decision for the ETTP site. Activities will be accomplished by three major subcontractors for (1) hazardous material abatement, (2) process equipment removal, and (3) building demolition. The overall anticipated time frame for this project is 8 years. The estimated cost is $294 million.

The K-25 and K-27 buildings and their associated structures are contributing properties to the K-25 Main Plant Historic District and have been determined eligible for inclusion in the National Register of Historic places. The K-25 building is one of DOE 's Manhattan Project Signature Facilities (out of eight total facilities in the country). In accordance with the National Historic Preservation Act, DOE must consider impacts from the proposed action, consult with the Tennessee State Historic Preservation Officer, and seek mitigation alternatives to minimize adverse effects to historic properties. During the public comment period on the EE/CA, DOE is requesting public input on the mitigation options. Following the public comment period, a Memorandum of Agreement will be finalized to set forth measures to preserve the history of these facilities.

DISCUSSION

The Oak Ridge Site Specific Advisory Board (ORSSAB) Waste Management Committee reviewed the EE/CA primarily to identify concerns related to the committee's interest in the Environmental Management Waste Management Facility (EMWMF). According to the *Attainment Plan for Risk/Toxicity-Based Waste Acceptance Criteria at the Oak Ridge Reservation* (DOE/OR/01-1909&D2), Environmental Management Program projects are to identify wastes to be disposed at EMWMF. Other comments were developed to address related, relevant topics.

RECOMMENDATIONS

ORSSAB recommends that DOE add explanation in the Action Memorandum for the Buildings K-25 and K-27 Decontamination and Decommissioning Project to address the following questions:

- How will DOE survey the converters?
- How will macroencapsulation be performed?
- How will issues of size, void space, and placement and protection of classified material from K-25 and K-27 be addressed relative to the EMWMF?
- How will DOE evaluate acceptability of the converters relative to the EMWMF waste acceptance criteria?

COMMENTS

Comments on the EE/CA are as follows:

In Section 5.4.1.1 and similar discussions, it seems that an exemption to Department of Transportation regulations will be implemented by temporarily closing public highways on the reservation. The logistics and frequency should be explained.

On page 1-6, last paragraph, discussion should recognize traces of neptunium and plutonium as hazards (reference page 2-19).

On page 2-7, Table 2.1 does not mention surge tanks.

In Figure 2.4, the cross-section of process equipment needs a detailed stage layout.

In alternative 3, no volume of generated waste is stated (although one is given in alternative 4). A cost estimate is not possible without this volume. The same problem exists in Appendix D.