



Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

January 11, 2002

Ms. Jessie Hill Roberson
Assistant Secretary of Energy for Environmental Management
U.S. Department of Energy - HQ
Forrestal Building
1000 Independence Ave., S.W.
Washington, DC 20585

Dear Assistant Secretary Roberson:

Recommendations on the Evaluation of Closure of the U.S. Department of Energy Toxic Substances Control Act Incinerator

At our January 9, 2002, meeting, the Oak Ridge Site Specific Advisory Board approved the enclosed recommendations.

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

Sincerely,

A handwritten signature in cursive script that reads "Luther V. Gibson, Jr.".

Luther V. Gibson, Jr.
Chair

Enclosure

cc/enc: Helen Belencan, DOE-HQ
Lori Fritz, DOE-ORO
Pat Halsey, DOE-ORO
Connie Jones, EPA Region 4
John Owsley, TDEC



**Oak Ridge Site Specific Advisory Board
Recommendations on Evaluation of Closure
of the U.S. Department of Energy
Toxic Substances Control Act Incinerator**

BACKGROUND

The U.S. Department of Energy (DOE) Toxic Substances Control Act (TSCA) Incinerator (TSCAI) is permitted by the State of Tennessee and the U.S. Environmental Protection Agency for storing and thermally treating PCB-contaminated radioactive and hazardous mixed waste. The incinerator is located at DOE's East Tennessee Technology Park in Oak Ridge, Tennessee. By virtue of the unique combination of nine permits and approvals held by the facility, TSCAI is the only incinerator in the country that has regulatory approval for treating PCB-contaminated mixed wastes. Over 27,000,000 pounds of waste from 19 DOE facilities in 8 states, in the form of solids and organic and aqueous liquids, have been treated since routine operations commenced in April 1991, after initial facility construction in the 1980s.

The incinerator consists of a rotary kiln and a secondary combustion chamber followed by a wet off-gas cleaning system. Organic liquids and aqueous and solid wastes can be fed into the rotary kiln. Only high-heat-value organic liquid wastes are allowed by permit to be fed to the secondary combustion chamber. The air pollution control system is designed to cool and saturate the combustion gases, neutralize the acidic gas components, such as hydrochloric acid, and remove particulate matter containing the principal radionuclides and hazardous metals from the off-gas.

In 1998 the Governor of Tennessee's Independent Panel concluded that TSCAI emissions were far below permitted levels. Risk assessments to off-site human health and ecological receptors were not required of any incinerator that was constructed and began operation at the same time as TSCAI. Such risk assessments are now required in conjunction with the recent trial burn for renewal of the Resource Conservation and Recovery Act Part B permit and will provide more detailed and comprehensive information about impacts than previously available.

DOE's current baseline planning is to end incinerator operations in September 2003, and a DOE-Headquarters update of its complex-wide incineration needs and whether to continue with the planned closure or potentially extend operations beyond September 2003 are tentatively scheduled to be conducted in early 2002.

DISCUSSION

The Oak Ridge Site Specific Advisory Board (ORSSAB) Waste Management Committee invited Helen Belencan, Low-Level Waste and Mixed Low-Level Waste Program Manager for the DOE-Headquarters Office of Integration and Disposition, to the committee's December 2001 meeting to discuss her analysis of DOE complex-wide incineration needs and the pending decision on the planned closure of TSCAI.

According to Ms. Belencan, demand for TSCAI will be strong through 2005 and then drop dramatically after that time. However, 60% of the 110,000 m³ of mixed low-level waste materials requiring disposition through 2010 have yet to be characterized, and treatment of that material may be required.

Ms. Belencan reported on efforts to identify alternatives to incineration and noted that the Allied Technology Group, Inc., incinerator in Washington (which might have provided a commercial sector alternative to TSCAI) recently filed for bankruptcy and that its future operations are unknown. No incinerators other than TSCAI are currently operating in the DOE complex. She stressed that the decision to shut down the Consolidated Incineration Facility at Savannah River and the pending decision regarding TSCAI are based on cost and need and that there is no DOE policy in place to abandon incineration as a disposal option. The results of a January 2001 analysis of complex-wide demand for mixed low-level waste incineration show that a need for treatment of solid mixed low-level wastes containing PCBs continues through 2007. Additional information is being compiled, and Ms. Belencan will be briefing the Assistant Secretary early in 2002 in preparation for this decision.

Approximately 25 members of the public joined the SSAB Waste Management Committee in listening to Ms. Belencan's presentation. It was the consensus of the committee and members of the public who were present that the upcoming decision was of paramount importance.

RECOMMENDATIONS

TSCAI is an important and unique national resource, and decisions regarding its closure will have far-reaching impacts to Oak Ridge and the DOE complex. ORSSAB recommends that DOE conduct a comprehensive evaluation of the full life-cycle costs and impacts of all alternatives for DOE complex waste currently baselined for incineration. Without a formal change in DOE's overall policy toward incineration, ORSSAB believes that a strong argument must be made prior to replacing an available, safe, proven technology.

We further request that this evaluation information and analysis be provided to the public and that public input be invited and considered prior to making the final decision. The following topics deserve a full and comprehensive evaluation.

1. Consider the full life cycle costs of any alternatives to TSCAI:
 - Evaluate the total life cycle costs of development, operation, shipping, packaging, disposal, shut down, and decontamination and decommissioning of any new technology that will perform as well or better than TSCAI in comparison to the costs for these functions relative to the operation of TSCAI.
2. Fully evaluate the feasibility of implementing viable alternatives to TSCAI:
 - Identify the data and criteria showing there is a feasible alternative that will be in place and operating upon the closure of TSCAI. To date, no proven alternative technology is in place.
 - Identify the feasibility of shutting down TSCAI permanently in 2003 and implementing an alternative technology for the short period of time that will remain. There is little currently identified demand for TSCAI past 2005.
3. Fully consider the value of the investment in TSCAI and making full utility of its capabilities:
 - Fully explore the complete capabilities of TSCAI and the cost-effectiveness of using it to its full capabilities and capacity. More than \$40M has been invested in TSCAI to date, and a great deal of effort is being made to renew its permits. TSCAI was designed to process solids, and especially soils, but has never been fully utilized for such. Non-PCB mixed waste is generally not sent to TSCAI, though it can handle these materials as well.
 - Base any conclusion about underutilization of treatment capacity on all facility permit constraints that may limit waste feed rates.
4. Fully consider the impact of TSCAI on equity issues for the Oak Ridge Reservation:
 - Fully consider the equity issues in ensuring that Oak Ridge wastes can be treated and disposed across the complex in a cost-effective, timely manner as DOE and state regulators balance equity issues.
5. Fully consider the collateral costs and impacts of closing TSCAI:
 - Identify the total collateral costs to the East Tennessee Technology Park of closing TSCAI, including decreased utilization of the utility system, the Central Neutralization Facility, and the steam plant.
 - Identify any economic impacts of closing TSCAI on the Oak Ridge community, its workers, and businesses.