



*Many Voices Working for the Community*

# Oak Ridge Site Specific Advisory Board

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June 9, 2011

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

Dear Mr. Eschenberg:

## **Recommendation 202: Recommendation on Salt Removal at the Molten Salt Reactor Experiment**

At our June 8, 2011, meeting the Oak Ridge Site Specific Advisory Board approved the enclosed recommendation regarding the Salt Removal at the Molten Salt Reactor Experiment

The Board recommends that the Department of Energy take the following actions regarding the reactor's coolant salts.

- Begin an effort to find a path of disposal for the salt and determine the time limits under which that path, or paths, will be available.
- Begin an effort to understand pipe plugging and other problems that were experienced in previous salt removal efforts. The Department should work with qualified personnel to determine the problems.
- Select an alternative for salt disposal which leads to a path for disposal.

Please see the enclosed recommendation for complete details.

We look forward to receiving your response to this recommendation by September 8, 2011.

Sincerely,

Ron Murphree, Chair, PE, CPE  
rm/rsg

Enclosure

**Recommendation 202: Recommendation on Salt Removal at the Molten Salt Reactor Experiment**

cc/enc:

Dave Adler, DOE-ORO

Cate Brennan, DOE-HQ

Fred Butterfield, DOE-HQ

Pat Halsey, DOE-ORO

Connie Jones, EPA Region 4

Local Oversight Committee

Myron Iwanski, Anderson County Mayor

Melissa Nielson, DOE-HQ

John Owsley, TDEC

Mark Watson, Oak Ridge City Manager

Ron Woody, Roane County Executive



## Oak Ridge Site Specific Advisory Board Recommendation 202: Recommendation on Salt Removal at the Molten Salt Reactor Experiment

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### **Background**

The Oak Ridge Site Specific Advisory Board (ORSSAB) has heard presentations on plans to remove the salt from the Molten Salt Reactor Experiment (MSRE) and has reviewed the Engineering Evaluation Options for the Molten Salt Reactor Experiment Defueled Coolant Salts, Oak Ridge, Tennessee (DOE/OR/01-2496&D1). ORSSAB has several concerns with the recommendation of the Engineering Evaluation and with the conduct of the program in general.

### **Discussion**

The recommendation in the evaluation that the salt tanks be left 'As-Is' for 50 years appears to ignore the possibility that there may be no path for disposal after 50 years other than permanent residence on the Oak Ridge Reservation.

The pluggage of piping during attempts to transfer the salt continues to be presented as a mystery. Until this problem is resolved, any salt removal scheme is shrouded in uncertainty.

Past salt removal efforts and plans have not made use of the expertise available in personnel who were involved in the design and operation of the MSRE. The people are retired, willing to help, and will not be available in the distant future.

### **Recommendations**

ORSSAB recommends that the Department of Energy take the following actions regarding the MSRE coolant salts:

- Promptly begin an effort to find a path or paths to disposal of the salt and find the time limits under which those paths will be available.
- Promptly begin an effort to understand the pipe plugging and other problems which were experienced in previous salt removal efforts. This effort should be carried out by Oak Ridge National Laboratory or other qualified personnel. The retired personnel who designed and operated MSRE should be consulted.
- Select an alternative for salt disposal, which leads to a path for disposal and has a very high chance of success, based upon the above evaluations.