



## **SRS Citizen's Advisory Board**

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#### **Waste Management Committee Meeting**

**North Augusta Community Center, N. Augusta, SC  
September 13, 2005**

The Savannah River Site (SRS) Citizens Advisory Board (CAB) Waste Management Committee (WMC) met on Tuesday, September 13, 2005, 5:00 PM, at the North Augusta Community Center, N. Augusta, SC. The purpose of this meeting was to discuss the Deactivation and Decommissioning (D&D) Waste Disposal Practices; National Academy of Science (NAS) Interim Report; Notice of Intent, Greater than Class C draft Environmental Impact Statement (EIS) and to hear public comment. Attendance was as follows:

#### **CAB Members**

- Bob Meisenheimer  
- Manuel Bettencourt  
- Joe Ortaldo  
- Bill Willoughby  
Bill Lawless  
Perry Holcomb  
Leon Chavous  
Jean Sulc

#### **Stakeholders**

Bill McDonell  
Joe Whetstone  
Sam Booher  
Charlie Hansen

\*Rick McLeod

#### **Regulators**

Robert Pope, EPA

#### **DOE/Contractors**

Doug Hintze, DOE  
Howard Pope, DOE  
Helen Belencan, DOE  
Nick Deleplane, DOE  
Greg Johnson, DOE  
Jim Cook, WSRC  
Ron Campbell, WSRC  
Joe Carter, WSRC  
Sonny Goldston, WSRC  
Elmer Wilhite, WSRC  
Teresa Haas, WSRC  
John Dickenson, WSRC  
Jim Moore, WSRC

\*\* James Joyce, DOE-HQ

- *WM committee members*      \* *CAB technical advisor*  
\*\* *via Teleconference*

Note: Cassandra Henry is a CAB member of the WMC, but was unable to attend this session.

#### **Welcome and Introduction:**

Bob Meisenheimer, Chair, welcomed everyone to the meeting and asked them to introduce themselves. James Joyce, DOE, listened in via teleconference. Mr. Meisenheimer added two items to the agenda with no objection from members of the committee. They were the Battelle West Jefferson Site Transuranic (TRU) Waste Shipments to SRS and the Yucca Mountain Environmental Protection Agency (EPA) revised standards.

#### **Deactivation and Decommissioning (D&D) Waste Disposal Practices:**

Helen Belencan, DOE, provided information on the kind of waste D&D generates, how it is disposed and the regulatory involvement process. From the period of October 1, 2002 to July 31,

2005, the Low-level radioactive waste and sanitary waste were about equal at 1.2 million cubic feet and 1.4 million cubic feet, respectively. Polychlorinated biphenyls (PCBs) were 5 thousand cubic feet, Mixed Waste was 2.8 thousand cubic feet and hazardous waste was 4.3 thousand cubic feet.

The Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) requested information on the disposal practices and visited the site for an E-area disposal overview. The site provided the Solid Waste Annual Report, the Waste Acceptance Criteria and the Closure Plan. An agreement was developed between the three groups providing regulatory involvement through review and comment on the Radiological Performance Assessment, the Closure Plan and the Annual Review. The agreement continues to allow low-level waste to be disposed on-site in accordance with the Waste Acceptance Criteria.

#### **National Academy of Science Interim Report:**

Doug Hintze, DOE, informed the WMC that under Section 3146 of the National Defense Authorization Act the Secretary shall enter into agreement with the National Research Council (NRC) of the National Academy of Sciences (NAS), to study certain waste streams that:

- Result from reprocessing of Spent Nuclear Fuel (SNF), and
- Exceed concentration limits for Class C low-level waste and
- DOE plans to dispose onsite rather than in a repository, and are
- Stored in tanks at Idaho National Laboratory, SRS and Hanford.

The NAS was to focus their recommendations on improvements to scientific and technical basis for managing tank waste, identification of technology gaps and technology alternatives and best means of monitoring any onsite disposal sites to include soil, groundwater, and surface water monitoring.

The four recommendations in the NAS Interim Report, the DOE observations and the WMC opinion were as follows:

1. NAS Recommendation: DOE should decouple tank waste removal and tank closure actions on a case-by-case basis where there are indications that near-term (5–10 years) techniques could become available to remove tank heels more effectively, safely, or at lower cost. In evaluating schedules for each tank, DOE should consider the risks from postponing tank closure compared with the risk reductions that could be achieved if the postponement improves heel removal. Although the committee believes that postponing tank closure need not extend the closure dates of the tank farms, DOE should work with the SCDHEC to revise the schedule for closure of a limited number of the tanks that contain significant heels, if necessary.

DOE Observation: DOE will apply the latest, most advanced technologies for actual tank cleaning. DOE will also balance the risk associated with closing a tank versus waiting for advances in cleaning technologies.

WMC Opinion: After discussion, it was felt that DOE should accept the concept of decoupling tank waste removal and tank closure actions by using the waste determination

basis and the performance objective to determine when a tank is clean and ready for closure. Subsequent negotiations and enforceable closure schedules between SRS and SCDHEC should be used to close the tanks.

2. NAS Recommendation: DOE and other involved parties should consider options other than Deliquification, dissolution, and adjustment (DDA) to alleviate the impending crisis in usable storage in compliant tanks. Options include actions that (1) Reduce waste inputs to tanks, such as redirecting the Defense Waste Processing Facility (DWPF) recycle streams for disposition in the Saltstone Facility; and (2) actions that free up usable volume in compliant tanks, such as using noncompliant tanks not known to have leaked for emergency storage volume.

DOE Observation: Options for disposition and use of DWPF recycle were part of a systematic analysis of tank space issues. DOE does not consider the use of non-compliant tanks to be a viable alternative for waste storage or emergency use.

WMC Opinion: After discussion, the WMC decided that DOE should continue to implement the DDA process and to minimize any use of noncompliant tanks for waste storage.

3. NAS Recommendation: When deciding what waste may be disposed of on-site, DOE and other involved parties should ensure that discussions focus on how radionuclide and chemical quantities and concentrations, their conditioning, their interactions with the environment, and their bioavailability affect site-specific risk.

DOE Observation: DOE intends to demonstrate, through robust assessment of the performance of the waste disposal system, that current plans to dispose of waste on-site are protective of human health and the environment.

WMC Opinion: The WMC agrees with this recommendation and DOE approach.

4. NAS Recommendation: DOE should fund research and development efforts focused on providing deployable results within the 5-10 years on the following topics: (1) in-tank and downstream processing consequences, of chemical tank-cleaning options, (2) technologies to assist in tank-waste removal, including robotic devices, and (3) studies of the projected near- and long-term performance of tank-fill materials such as grout.

DOE Observation: Through its technology development program, DOE has invested substantially in new technologies to support remediation of tank waste, including those for waste retrieval and tank cleaning. Investments in new or improved technologies will continue to be made.

WMC Opinion: The WMC felt that DOE should not wait on new waste removal technologies to be developed before waste tanks are closed but should continue to fund research and development on in-tank and downstream processing consequences, of tank

cleaning and removal options, and studies of waste system performance and incorporate any new technologies when they become available.

The final NAS report is due in January 2006. There is a potential NAS site visit in November 2005.

The WMC decided that a CAB recommendation should be developed for the September CAB meeting expressing their views on the NAS Interim Report.

**Battelle West Jefferson Site Transuranic (TRU) Waste Shipments to SRS:**

(This is an added agenda item.)

After letting the WMC know that the subject letter to Dr. Triay had been sent, it was decided to distribute the draft subject recommendation to the WMC for comment. The recommendation will be discussed at the September Combined Committee meeting.

**Notice of Intent, Greater Than Class C (GTCC) Draft Environmental Impact Statement (EIS):**

James Joyce, DOE-HQ, participated in the meeting via teleconference. Mr. Joyce explained that DOE has statutory responsibility for GTCC under the Low-Level Waste Policy Amendments Act of 1985. The GTCC is licensed by the National Regulatory Commission (NRC) and requires disposal in a NRC licensed facility. DOE plans on holding public scoping meetings and issuing a draft EIS within 12 months. The final EIS would be issued 12 months after the draft EIS or in late 2007.

A DOE EIS team is being put together to develop the EIS. EPA will be a cooperating agency and the NRC will be the commenting agency. The NRC must ultimately approve the disposal path of the GTCC via licensing.

The advanced Notice of Intent (NOI) was issued May 11, 2005 that provided background on GTCC waste, informed the interested parties on pending EIS and invited early comments, provides time to update inventories and complete other studies, and announced that DOE orphan GTCC-like waste may be included in the scope of the EIS. Potential generic disposal methods and locations were introduced but it did not identify specific disposal sites. Various forms of GTCC low-level waste may make multiple locations and disposal methods desirable. Mr. Joyce reviewed some of the comments received on the NOI.

DOE is currently developing updated inventories of GTCC. Public comments on the NOI and EIS scoping issues are being evaluated as well as possible disposal path alternatives. Potential site and method selection criteria are being identified. The relatively small volume of GTCC low-level waste may support using existing facilities.

DOE recognizes the challenge in developing the GTCC disposal capabilities and is interested in receiving expert and interested public input.

The WMC decided to send a letter to Mr. Joyce with the following comments:

- Suggest there is no reason to consider DOE wastes at SRS Greater than Class C in this EIS because it has a disposal path and is already covered by DOE orders.
- Carefully write the scope of the EIS so it clearly says DOE is not included in the EIS. Hope to eliminate the possibility for any lawsuits because DOE doesn't follow the scope.
- Need to understand why DOE is writing this EIS when DOE doesn't consider Greater than Class C waste. This is a NRC problem not DOE.
- EIS should only cover commercial plants generating radioactive wastes Greater than Class C as permitted by NRC.
- SRS should not be considered as a site to store waste Greater than Class C; however, if SRS is considered as a site, equity issues should be considered.
- The Nevada Test Site should be licensed to handle Greater than Class C.

### **Yucca Mountain Environmental Protection Agency (EPA) Revised Standards:**

(This is an added agenda item.)

Bob Meisenheimer reported that EPA is holding public meetings in Las Vegas and Washington, DC in October. He proposed that EPA come to the Aiken/Augusta area to either hold a public meeting or meet with the WMC. The letter by the Nevada Attorney General as well as the responses to that letter by Dr. Peterson and Dr. Corradini were also discussed. Rob Pope, EPA, suggested that EPA might attend a WMC meeting before the public comment period ends October 21. It was decided that Joe Ortaldo will inform the CAB at the September CAB meeting about the situation. The WMC would like to develop a recommendation after the EPA meeting and have Jean Sulc have the authority to give the recommendation CAB approval so that it can be sent out before the public comment period ends October 21, 2005. A copy of the recommendation would also be sent to the Attorney Generals of 11 states. The WMC and CAB will be solicited to give their comments on the Yucca Mountain EPA revised standards to Joe Ortaldo to combine for the planned EPA/WMC meeting.

### **Public Comment:**

Sonny Goldston reported that SCDHEC has issued a public comment period on a permit modification to the TRU pads. The comment period ends October 14. Mr. Goldston explained that the modification would not have a negative impact to SRS.

Bill McDonnell requested that whoever responds to the Yucca Mountain EPA revised standard (of 1,000,000 yrs.) that they remind everyone that neanderthals have only been around for 500,000 years.

### **Adjourn:**

Bob Meisenheimer adjourned the meeting.

### **Follow-Up Actions:**

- Bill Lawless requested that next spring the WMC take an in depth look at the low-level waste operation in general, including the PA, CA and WAC. Bob Meisenheimer requested the self-evaluation and closure plan should also be included. - Sonny Goldston/Jim Moore
- During discussions of the D&D Waste Disposal Practices, it was mentioned that the Site would give DHEC an annual tour. Bob Meisenheimer suggested that someone on the CAB might be interested in participating in that tour. - Sonny Goldston/Jim Moore

- If DOE, NRC and DHEC have a workshop on the monitoring of onsite disposal sites, Bill Lawless requested that this be a public meeting. If the workshop occurs and is public, the CAB and WMC are to be notified. - Doug Hintze/Jim Moore
- Bill Lawless requested a motion on the NAS Interim Report. He proposed that the CAB support decoupling tank waste removal and tank closure but leave the decision to DOE and DHEC when to close the tanks. Agree with NAS recommendation 3 and 4, but disagree to consider an alternative to DDA. - Rick McLeod/Jim Moore
- Rick McLeod requested that DOE come back to the WMC to discuss the impacts of the tank closure schedule. Bill Lawless suggested that this be placed in the motion. - Doug Hintze/Rick McLeod/Jim Moore
- Bob Meisenheimer requested that the draft motion on the Battelle West Jefferson Site TRU Waste Shipments to SRS be forwarded to the full WMC for comment. - Jim Moore (Complete)
- Bob Meisenheimer requested that EPA be invited to a WMC meeting in early October to discuss the Yucca Mountain EPA revised standards. Rob Pope, EPA, will help coordinate the meeting. Joe Ortaldo will inform the CAB at the September CAB meeting about the situation. The WMC would like to develop a recommendation after the EPA meeting and have Jean Sulc have the authority to give the recommendation CAB approval so that it can be sent out before the public comment period ends October 21, 2005. A copy of the recommendation would also be sent to the Attorney Generals of 11 states. - Joe Ortaldo/Jim Moore
- The WMC and CAB will be solicited to give their comments on the Yucca Mountain EPA revised standards to Joe Ortaldo to combine for the planned EPA/WMC meeting. - Joe Ortaldo/Jim Moore
- Bill McDonnell requested that whoever responds to the Yucca Mountain EPA revised standard (of 1,000,000 yrs.) that they remind everyone that neanderthals have only been around for 500,000 years. - Bob Meisenheimer/Jim Moore
- Sam Booher is to receive a copy of the draft recommendation on SREL funding and a copy of the notes of the September CAB meeting. - Paul Sauerborn/Jim Moore
- Bill Lawless requested a letter be sent to James Joyce on the Notice of Intent, Greater than Class C EIS that would include the questions that Rick McLeod collected. - Rick McLeod/Jim Moore