



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

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## **Waste Management Committee**

**Community Center, North Augusta SC  
March 18, 2004**

The SRS Citizens Advisory Board (CAB) Waste Management Committee (WMC) met on March 18, 2004, 5:00, at the Community Center, North Augusta, SC. The purposes of the meeting were to discuss TRU waste, to review recommendations, and to receive public comment.

Attendance was as follows:

#### **CAB Members**

-Harold Rahn  
-Jean Sulc  
-Mary Drye  
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-Perry Holcomb  
-Karen Patterson

#### **Stakeholders**

Bill McDonell

Lee Poe

Rick McLeod \*

#### **DOE/Contractors**

Joe Carter, WSRC  
Bert Crapse, DOE  
John Dickenson

Sonny Goldston, WSRC

Teresa Haas, WSRC  
Doug Hintze  
Greg Johnson, DOE

#### **Regulators**

Kelly Way, WSRC  
Elmer Wilhite

\*CAB Technical Advisor  
-WM committee members  
+Facilitator  
^Press

Harold Rahn called the meeting to order at 5:00. He welcomed those in attendance and asked for introductions. He then introduced the first speaker.

#### **TRU Waste Update-Bert Crapse**

Mr. Crapse explained his purpose in addressing the committee. He then explained the inventory of Transuranic (TRU) waste. The Savannah River Site (SRS) has two principal types of legacy TRU, a debris waste contaminated with Pu-238 and a debris waste contaminated with Pu-239. He talked about Pu 238, 239, and their unique characteristics. SR is the only site that has this inventory and unique challenges associated with PU-238.

The TRU waste can be divided into waste stored in 55-gallon drums and large boxes. Both waste types are basically a heterogeneous mixture of job control waste, which includes protective clothing, rags, and tools used during the processing of plutonium and other nuclear materials and may include equipment, piping and glove boxes. The SRS TRU waste inventory consists of 11,650 cubic meters, roughly half of this in 30,000 55-gallon drums and the other half in 3,000 non-drummed waste containers of varying sizes.

Next he outlined the inventory details, showing the committee the type and numbers of containers. He also had specific counts of Pu-238 and 239 containers. He was able to show the group detailed colored pictures of TRU waste containers, manipulator sleeves, black boxes, inner containers, concrete casks, concrete culverts and miscellaneous containers. He explained packaging and inner containment. He added that SR wants to certify waste in existing containers. Mr. Crapse also explained the large container issues that require regulatory changes and new solutions for characterization and transportation.

Mr. Crapse reported that to date 327 shipments (10, 144 drums or 2,100 cubic meters) had been shipped to the Waste Isolation Pilot Plant (WIPP). The current shipping rate is 24 shipments per month. Under the current Westinghouse Savannah River Company (WSRC) contract (through 2006), the target case scope is 4,000 drums per year or 3,360 cubic meters by 2006. The accelerated schedule under the contract (maximum case scope) would remove 11,650 cubic meters by 2006, which equates to all of the legacy TRU waste at SRS. 10,144 drums had been shipped through March 12. There are six shipments per week, 7 days a week. More than 750 cubic meters of low level waste has been removed from SR's large container inventory. He also added that both Pu- 238 and Pu-239 drum waste is currently being shipped to WIPP.

He moved into FY 2004 plans. The site would like to make 270 WIPP shipments, receive a glovebox unit, complete the Phase I study to determine x-ray and assay capabilities for large container waste, and remove/ship 50 percent of all drummed waste.

He explained the x-ray process for each drum. Each drum is visually recorded on VHS. This must be done for drums and large containers. In the large containers, there are distortions because of the size and shape of the containers. The x-rays sometimes reveal that the containers must be opened. This is a very time consuming process. Challenges exist with the bioassay, as well. The large containers may take up to eight hours to assay, drums take 30-40 minutes.

Mr. McLeod asked if the site has everything it needs to make the 2006 goal. Mr. Crapse stated that the LANL glovebox is still needed. Mr. Poe suggested that the site would need the resource people, working with site personnel, for the glovebox.

Mr. Crapse shared the TRU acceleration baseline with the committee. The original baseline to remove all TRU waste from SR was set for 2035. WSRC, believing that baseline could be beat, entered 2013 as the date in the Performance Management Plan (PMP) to remove all legacy TRU waste. However, the WSRC target case (incentivized contract goal) and max case to have all TRU waste removed has been set at 2006. The site will have large container waste process capability in FY 08. Mr. Goldston added that this is tremendous acceleration as compared to the program.

Ms. Patterson asked about High activity TRU and high activity drums. Mr. Goldston stated that the site is on target with where they should be. Mr. Crapse stated that with any waste shipped, a percentage is high activity waste. DOE is looking for a modification to the Safety Analysis Report (SAR) in order to be able to ship higher wattage waste and to decrease shipping time.

To meet this accelerated schedule, a number of challenges must be overcome.

Regulatory relief is needed on the transportation of curie and wattage (hydrogen generating) limits. A method is needed for limited intrusive repackaging for large containers and high-activity drums (high curie drum waste). New technologies are required for large container assay and X-ray. The new TRUPACT-III shipping containers must be available and NRC approval is required for the existing TRUPACT-II and the new ArrowPak containers to handle high-activity drums. SR submitted TRUPACT II design to NRC based on a container used in the United Kingdom. DOE performed a mock up and a drop test. SR submitted the package and believes it will be approved within a year.

The NRC has stated that single containment is acceptable for shipping TRU waste (already packaged waste). However, the Western Governor's Association sent a letter to NRC disagreeing. NRC believes they have answered the technical issues.

Mr. Crapse showed pictures of the TRUPACT II's leaving SRS on their way to WIPP. He explained the packaging and mentioned that an empty container weighs twenty thousand pounds. He also stated that DHEC and the state patrol accompany these shipments to the South Carolina border.

Mr. Crapse showed pictures of the Glovebox Transportainer and the glove box. He explained dimensions and details. He explained insertion of drum and removal of waste. The workers sift through the waste and put anything non-compliant into a new drum. The LNL glove box is only for drummed waste. SR hopes to put the big containers on rail cars and take to F-Canyon.

Mr. Crapse concluded by recapping his major points. SRS is moving waste, is inline with the National TRU Program, is maintaining acceleration to beat the 2013 end date, and has significant technical challenges for large container TRU waste.

Mr. Poe asked about legacy TRU at SRS. He stated that the site continues to generate TRU, even the canyons are generating TRU. Mr. Crapse answered that the site is shipping the newly generated waste to WIPP. In addition, what has been inventoried will be shipped to WIPP as well, along with the generated waste. The D&D Program is the unknown. Mr. Poe then asked for clear, concise language of each of the different cases—"baseline, stretch, target, max...it all sounds like jargon and is very confusing.

When he asked about Plutonium, Mr. Poe and Mr. Holcomb took a few moments to discuss Pu-238 and Pu-239, the uniqueness of, the specific activity, and the different handling requirements.

Mr. Goldston commented on the CAB, WM Committee, and individual responses to the NMED Permit Modifications. Each comment was carefully considered, and because there were so many,

the hearing has been postponed. Mr. Poe pointed out that individual comments weighed the same as the CAB's group comments.

Mr. Crapse gave an update on CAB recommendation #182, the WIPP Permit Modification. Because the site is shipping waste, they are not looking at alternatives now. SR has recalculated the TRU waste baseline and has sent the updated TRU waste baseline to DOE-Carlsbad and NMED. EPA is preparing to recertify the WIPP facility.

### **Public Comment**

Mr. Rahn asked for public comment. Mr. Holcomb congratulated DOE on progress made. He would like to hear an update on the number of curies moving from SR to New Mexico.

Mr. Poe commented on Arjun Makhijani's article in the NY Times. He mentioned that the Environmental Justice (EJ) group held a workshop, at which Makhijani presented his view. School children were briefed. Mr. Poe believes the CAB needs to go talk to EJ as well in order to place a balance on the information that was presented to these groups. He gets very disturbed when he reads this information and believes that the CAB would be the correct organization to hold a workshop.

Mr. Poe also believes the information that has been printed about the WIR lawsuit and the amount of waste being left behind in the HLW tanks is a travesty. The CAB needs to do something.

Lastly, Mr. Poe stated that if something weren't done with NMED and the permit modifications, SRS would be left with TRU waste. He believes that this issue needs to be raised with the State of New Mexico.

The committee discussed the following recommendations and their status:

#13, #105, #132, #158, #144, #181, and #182 from pending to open.

Next, Mr. McLeod reviewed two recommendations, HLW Proposal and TRU Waste Program Acceleration, with the committee that are to be presented to the Combined Committees and full CAB on March 22-23 in Columbia, SC.

Mr. Rahn adjourned the meeting at 7:20.