

**SAVANNAH RIVER SITE PUBLIC & REGULATORY INVOLVEMENT IN THE
TRANSURANIC (TRU) WASTE MANAGEMENT PROGRAM RESULTED IN DECISIONS TO
ALLOW SMALL QUANTITY SITES TO SHIP TRU WASTE TO SRS & ACCELERATION OF
THE SHIP-TO-WIPP PROGRAM**

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ABSTRACT

The key to successful public involvement at the Savannah River Site (SRS) has been and continues to be vigorous, up-front involvement of the public and state regulators with technical experts. We have found that just picking the best technical expert may not achieve success; however, we must choose experts who can speak to the public in easily understood language, making key technical and program points in a friendly, congenial manner. Many times the key to successful interaction is the interplay at breaks, before and after the meetings, and, yes, over lunch.

This paper will describe the public involvement program that resulted in consensus and agreements to allow the SRS to receive transuranic (TRU) waste for storage from a small generator site outside of the state of South Carolina prior to shipment to the Waste Isolation Pilot Plan (WIPP) in New Mexico for disposal. The interaction between the stakeholders not only included the general public, but also the South Carolina Department of Health and Environmental Control (SCDHEC) and the South Carolina Governor's office. The discussions, educational sessions, and negotiations included resolution of equity issues as well and moved forward to an understanding of the difficulties including risk management faced by the Ship-to-WIPP program. Once the program was better understood, the real negotiations concerning equity, safety, and acceleration of shipments could begin. The public involvement resulted in receipt of the TRU waste from the Mound Facility in Ohio based on acceleration of SRS shipments to WIPP. Further challenges are ahead and the process has continued to make sure the public and state regulators understand the significant challenges ahead and the barriers that need to be removed to continue shipping higher activity TRU waste to WIPP.

PUBLIC INVOLVEMENT – PICKING THE RIGHT PEOPLE AND STRUCTURE

The SRS Public Involvement Program is a key ingredient in the success of any program, but especially ones that invoke passionate objections by the public or the State of South Carolina. The Public Involvement Program for Waste Management issues began to realize that technically savvy people who could also develop a trusting relationship with the public and state regulators was a key success. It can be difficult to design a program that allows the technical stories to be told by technical experts to the public to persons who may have little or no knowledge of the technical issues or complexities. The regulators also must be willing participants in the process, even though the regulators' goals may not be in line with the SRS goals. One of the toughest jobs is to find the people who can easily be included in a discussion, technically astute, politically sensitive, and trustworthy. This person must be a great teacher without being condescending. This person must also be very patient and willing to start the education process from the simplest beginnings through as deep an understanding as the interested public would like to pursue.

Once you have found this "super person," the structure of public involvement must be set so the interactions are very well supported logistically so the dialog between the public and the expert is not hindered by lack of facilities, meeting times, or audio visual tools. The physical arrangements must

support the free and open exchange of ideas through mutual understanding of these rather complex programs. Meeting times and places must be arranged so that the interaction between public and SRS expert is easy and free. Trust cannot be built with podiums and microphones. The meeting structures should be as informal as possible with lots of illustrations and time for questions.

The public participants must have the ability to input recommendations that have “teeth.” Public comment periods are often touted as public involvement. Providing comments that can be answered with a nice “thank you for your comment” letter is simply not involvement. So providing the education, feedback and questions, and a method to require response to carefully thought out recommendations is a critical element in meaningful involvement that allows the public participants to feel part of the program instead of someone on the outside providing criticisms.

So how do we accomplish all of this?

- Technically competent spokespersons that are patient, easily understood, trustworthy, and politically sensitive.
- Patient building of education that starts at beginnings and moves to more complexity.
- Logistical support that provides the facilities, administrative support, and meeting design for mutual open exchange of ideas in a non-threatening manner.
- Methodology for public input in the form of recommendations to the SRS and state regulators that require thoughtful consideration and meaningful response.

The SRS program in the waste management area has striven to achieve this type of program. More needs to be done, but the attempt at making this type of program work has met with considerable success.

One person who has more than 25 years experience in the nuclear business as an engineer and manager was chosen to attempt to be the “super person” public involvement, technical expert, “good old boy,” trust builder. That person began by meeting and becoming friends with the public participant in the SRS Citizens Advisory Board (CAB) meetings. This was not done by giving the public standup presentations, although presentations were given.

The way to gain trust was simply to show up at meetings early, talk with the public about their interests, family, hobbies while trying to figure out what their concerns about SRS programs were during these discussions. Talk at the breaks after meetings and over dinner to understand what more needs to be done to foster education and understanding. Above all, find a way to respond to concerns that are raised. This will improve trust and credibility. Standup presentations are important too, but are under the heading of tools and logistics. Too many times a standup presentation is all that is attempted and the formality of it all makes real exchange of ideas almost impossible.

The patient building of education has been a very long process. It has taken months and years to bring interested public into a knowledgeable enough group that opinions become meaningful recommendations. Of course, new people will decide to get involved as the program moves ahead. For the new people, the process must be prepared to start over again while moving forward with the more educated in parallel.

The logistical support has been structured by dedication of a group of employees who provide meeting arrangements, structured minutes, tours, slide presentation preparation, and sound systems. This, of course, takes dedicated funding. The public must also be reimbursed for expenses of travel to other cities

and locations that have citizens who are interested in participating with SRS. All of this has been done at SRS with a dedicated staff of public involvement specialists.

PUBLIC INVOLVEMENT IN WASTE MANAGEMENT AT SRS

The SRS Public Involvement Program became centered on the SRS Citizens Advisory Board (CAB) and through its public meetings other interested members of the public. The SRS TRU Program now works primarily with the Waste Management Committee (WMC) of the SRS CAB as well as with members of the public to address SRS's TRU waste management operations.

The CAB is comprised of 25 individuals from South Carolina and Georgia who are chosen by an independent panel of citizens from approximately 250 applicants. The board members reflect the cultural diversity of the population affected by SRS. The members, who serve two- or three-year terms, represent all walks of life, including the business world, academia, local government, environmental and special interest groups, and the general public. Two of the members specifically represent economically disadvantaged persons. The CAB also works with the Environmental Protection Agency (EPA), Region IV, and the South Carolina Department of Health and Environmental Control (SCDHEC).

The methodology for public input has been provided through the CAB and the CAB's agreed bylaws that requires a response from DOE and the state regulators along with reports of progress to resolve issues associated with a recommendation.

So how do you bring the regulators into the process? At SRS, we accomplished this by bringing the State of South Carolina regulators, South Carolina Department of Health and Environmental Control (SCDHEC), and the Environmental Protection Agency (EPA) to the table as members of the Citizens Advisory Board (CAB). We were able to gain the cooperation of the regulators at the highest level because they saw a way to communicate on these issues in an engaging way with the public. SCDHEC agreed to send their top technical and management personnel to participate, not just listen or, even worse, dictate the regulations. Involvement of all parties can make a program move forward by finding understanding and middle ground for all involved.

HOW IT WORKS – PUBLIC INVOLVEMENT IN TRU WASTE SHIPMENTS

Let's explore how this process worked with the SRS program to ship transuranic waste to WIPP.

The effort to educate the public on the SRS TRU program began in the late 1990s with discussions about the general status of the types of TRU waste in legacy. Of course, WIPP was not open and the projections as to when it may be open to accept TRU waste were forecasts of how the politics would proceed. Basically, our program for Public Involvement was to wait until the members of the Citizens Advisory Board asked a question. Then we would send an answer by a communications specialist or have a technical expert attend a meeting with fairly complex slides to answer the question.

Around 2000, a fundamental shift in our approach to public involvement occurred. It was obvious to us that public support through education was to be a critical link to building the programs to move to successful preparation for shipments to WIPP. We began a planned series of meetings to educate the public about our inventory, the types of TRU waste, how it was packaged and stored, and the potential risks involved in preparing the waste to go forward to characterization. This "full court press" required a team effort. The topics and sequences of briefings required careful planning. And, of course, the logistics such as meeting places, invitations (coordinated when many people could attend), and visual aid equipment all had to be arranged. Most important, perhaps, was to select the technical level of the presentations, ensure poster and photographs so that people could visualize the program, and select the

chief speaker. The speaker as described earlier must be able to relate to the audience through rapport and trust. To do that requires simple, effective presentations, but the technical expertise to answer deeper technical questions as they arise.

Meetings and presentations on the TRU program began with descriptions of the legacy waste in inventory, lots of pictures and posters and open informal exchange. After an understanding of the waste inventory was developed, then we moved into a description of the programs that were being planned to prepare the waste for improved storage and characterization. Along this journey we requested questions and recommendations so that the stakeholders were able to supply real input to our process. We have received many meaningful recommendations over the past several years; eleven between 1999 and 2004 with the first recommendation received in 1995. The recommendations ran the boards, from requests for continued update to requests for independent technical review of our programs.

As it became more evident that WIPP was going to open and begin accepting TRU waste for disposal, our efforts intensified to develop characterization equipment, techniques, and procedures to be able to demonstrate that we could meet the WIPP Waste Acceptance Criteria (WAC). The CAB was continuously briefed along the way. We even provided tours to give the CAB members a real visual appreciation of our challenges and accomplishments. They continued to encourage us to move forward using the formal Recommendations to DOE as their tool.

Using our internal resources, we were able to get our characterization program certified and installed the facilities to load the TRUPACT II shipping container. Our first shipment was made to WIPP on May 8, 2001. We made sure that the stakeholders including the CAB, local political leaders, and the state regulators were present to wave at the shipment as it left SRS so they could be a part of the success.

Our shipment rates were limited at this point by our resources and equipment. We were able to achieve about one shipment per month and without additional resources were not likely to improve that rate. At about this same timeframe, the Mound Laboratory in Miamisburg, Ohio was actively considering how to disposition a 300 cubic meter inventory of TRU waste as part of the closure activities at the site. Most of the TRU waste containers at Mound were too large, too heavy, or contained radioactivity that exceeded the limits for shipment in the TRUPACT II shipping container. To construct the facilities to prepare, repackage, characterize, and ship these wastes from Mound to WIPP was going to be very expensive. Of course, SRS was putting into place the same capabilities and had much more legacy waste in storage. Mound's 300 cubic meters represented about 3% of the SRS legacy TRU inventory of 11,000 cubic meters. We began to explore the possibility of accepting Mound's waste at SRS which would result in tremendous cost saving to the taxpayers. Mound would not need to build facilities to install the repackaging, characterization, and shipping facilities required to certify and ship TRU waste to WIPP if they could transfer the waste to SRS. It would not only be very expensive to build the "Ship-to-WIPP" facilities at Mound, it would take several years to complete the installation, train personnel, become certified by WIPP and begin operations. By transferring the TRU from Mound to SRS, Mound not only would avoid the costs of these Ship-to-WIPP facilities, but they would be able to close the site earlier since this legacy waste would be removed.

All of that is fine and makes perfect sense to a DOE official in Washington, DC, but how do you communicate this "great deal" for the people of Ohio to the people of South Carolina? It must be recognized up front that the people of South Carolina are not going to immediately be excited to accept additional TRU waste for storage. The CAB began to explore this program through a series of briefings to educate the members and the interested public on the opportunity facing SRS and DOE. At almost the same time, discussions with SCDHEC began to perform the same educational process, but also attempted to understand what concerns South Carolina may have and what they may propose. It was obvious from the first set of briefings that the public through the CAB and SCDHEC would need to understand and be

party to some equity considerations. SRS worked with DOE-HQ and DOE-WIPP to determine what could be done to accelerate shipments to WIPP from SRS in exchange for SRS acceptance of the Mound TRU waste.

DOE-WIPP was working to deploy a mobile characterization system that appeared to be able to greatly increase the rate of characterization and shipment to WIPP if deployed at SRS. In parallel discussions with SCDHEC it was determined that South Carolina may be able to agree to accept TRU from Mound if the Ship-to-WIPP program was accelerated.

The DOE agreed to deploy the Mobile Characterization Program to SRS to accelerate shipments to WIPP if agreements could be made with our stakeholders to accept the Mound waste. Of course, our SRS program to prepare the waste for characterization needed to be staffed up and programs developed to increase the rate as well.

We then proposed in discussions with SCDHEC and at almost the same time public meetings with the CAB that SRS would commit to a base number of shipments for each year. After those base shipments were made and before the first shipment could be accepted from Mound, SRS would ship two times more volume to WIPP than expected from Mound. In other words, after the base shipments for the year were made to WIPP, SRS would need to ship two shipments to WIPP before one shipment could be accepted from Mound. SCDHEC was extremely interested in the acceleration of TRU shipments to WIPP and found the prospect of accepting a relatively small amount of waste from Mound in exchange for a 2-1 acceleration very compelling. The CAB discussions and resulting recommendation in favor of accepting the Mound TRU waste allowed SCDHEC a forum for debate that was not available through regulatory specific meetings, since SCDHEC was not specifically involved in the regulations associated with shipments to WIPP.

RESULTS – PUBLIC INVOLVEMENT ASSISTS IN ACCELERATION OF TRU SHIPMENTS

The CAB debated this program and realized the benefit to SRS and South Carolina to accept the relatively small volume of waste from Mound in exchange for more than double the shipments from SRS to WIPP. Also, the acceleration would continue after all the Mound waste was accepted at SRS since the Mobile Characterization System would be in place and working.

Of course, the CAB enjoyed the idea of helping the national cause of closing Mound early and saving tax dollars by not building characterization facilities at Mound. But, the main reason for success was education by trusted technical experts along with listening to and acting upon stakeholder input that resolved real equity concerns.

The CAB provided a Recommendation to DOE that SRS accept the Mound waste only if twice as much is shipped to WIPP. (Reference 12) They also recommended that all of the cost be born by non-SRS funds.

CONCLUSION – MOUND TRU TO SRS/ACCELERATION OF SHIP-TO-WIPP

The first shipment of Mound waste to SRS was made on September 28, 2001 with transfer of all 300 cubic meters to SRS completed in 2003. Prior to acceptance of the Mound waste, SRS was shipping at the rate of one shipment per month. As a result of the shipment of Mound waste to SRS and lots of hard work by the SRS staff, the shipment rate to WIPP from SRS has accelerated to 24 shipments per month. The CAB and SCDHEC consider this program a real success story and they consider their involvement in this effort critical to the success that was achieved.

REFERENCES

- 1 “Transuranic (TRU) Waste,” presentation to the WM Committee by W. T. Goldston, April 17, 2003.
- 2 Citizens Advisory Board Recommendation No. 4 (adopted March 28, 1995), “Transuranic Waste Treatment Plan of WMEIS Comments and ISPR of TRU Waste Retrieval Project.”
- 3 Citizens Advisory Board Recommendation No. 11 (adopted November 28, 1995), “Implementation of Transuranic Waste Retrieval Project.”
- 4 Citizens Advisory Board Recommendation No. 18 (adopted March 26, 1996), “Transuranic Waste Treatment Options Recommendation following Blue Ribbon Panel Results.”
- 5 Citizens Advisory Board Recommendation No. 27 (adopted November 19, 1996), “Treating Combustible Transuranic Waste and Shipment to WIPP.”
- 6 Citizens Advisory Board Recommendation No. 32 (adopted January 28, 1997), “Waste Isolation Pilot Plant Disposal Phase Draft SEIS-II.”
- 7 Citizens Advisory Board Recommendation No. 47 (adopted November 18, 1997), “Environmental Management Integration and Some SRS Specific Recommendation.”
- 8 Citizens Advisory Board Recommendation No. 77 (adopted January 26, 1999), “WIPP RCRA Part B Permit.”
- 9 Citizens Advisory Board Recommendation No. 97 (adopted September 28, 1999), “The Shipment of Pu-238 Waste to the Waste Isolation Pilot Plant.”
- 10 Citizens Advisory Board Recommendation No. 111 (adopted January 25, 2000), “WIPP RCRA Permit/Transuranic (TRU) Waste.”
- 11 Citizens Advisory Board Recommendation No. 125 (adopted May 23, 2000), “WIPP RCRA Permit Modification (Miscertification Rate on a Waste Stream Basis).”
- 12 Citizens Advisory Board Recommendation No. 130 (adopted September 26, 2000), “Mound TRU Waste Shipments to SRS.”
- 13 Citizens Advisory Board Recommendation No. 148 (adopted January 15, 2002), “Low Activity TRU Facility.”
- 14 Citizens Advisory Board Recommendation No. 153 (adopted April 23, 2002), “TRU Waste Priority and Offsite Shipments.”
- 15 Citizens Advisory Board Recommendation No. 155 (adopted July 23, 2002), “TRU Waste Shipment Acceleration.”
- 16 Citizens Advisory Board Recommendation No. 163 (adopted May 21, 2003), “High Activity TRU Waste Packaging.”
- 17 Citizens Advisory Board Recommendation No. 164 (adopted May 21, 2003), “Waste Isolation :Pilot Plant (WIPP) Non-Compliant Item Waste Acceptance Criteria (WAC).”