

Joint Meeting of the Radioactive Materials Transportation Committee and the Transuranic Waste Transportation Working Group

Holiday Inn - Charlotte Center City
Charlotte, North Carolina
December 10-11, 2014

Meeting Summary

The Southern States Energy Board's (SSEB) Joint Meeting of the Radioactive Materials Transportation Committee and the Transuranic Waste Transportation Working Group occurred on December 10-11, 2014. The event was held at the Holiday Inn (Charlotte Center City) in Charlotte, North Carolina.

Mr. Christopher Wells, Assistant Director of Nuclear Programs for the Southern States Energy Board, welcomed the group and provided logistical and administrative meeting announcements. Following these comments, Mr. Wells gave brief opening remarks and initiated the introduction of all meeting participants. Upon completion of these introductions, Mr. Wells recognized SSEB's Chair of the Radioactive Materials Transportation Committee (Michael Broderick - OK) and their Chair of the Transuranic Waste Transportation Working (Brian Maske - MS).

The first speaker of the meeting was Ms. Ellen Edge of the U.S. Department of Energy/Environmental Management (EM)/Office of Packaging and Transportation. She began by noting the progress of EM cleanup activities of former nuclear weapons sites. Ms. Edge indicated that half of EM's FY 2015 budget request (\$5.622 Billion) was committed to waste management activities. She displayed a chart which provided the breakdown of funding to each site within the EM complex and then she spoke concerning some highlights of projects ongoing at Nevada, Oak Ridge, Portsmouth/Paducah and Savannah River. She mentioned that low-level waste (LLW) and mixed low-level waste legacy inventories remain in small volumes, but that the waste stream continues because of active decontamination and decommissioning projects. She noted that the Department supports commercial disposition options for this waste stream and that Energy Solutions (UT) and Waste Control Specialist (TX) remain viable options. She talked briefly about the West Valley Melter Campaign, which will be conducted by rail, and submitted a list of potential corridor states for the shipment. Ms. Edge discussed the latest news concerning Greater-than-Class C LLW Disposal noting the site review and selection was underway and that DOE

continues to monitor Nuclear Regulatory Commission regulation changes which might impact this process. Next, she specifically addressed the following key program areas: Packaging Certification, Emergency Preparedness & Outreach, Regulations & Standards, Transportation Risk Reduction and Program & Site Support. She also talked about the availability of a new course addressing transportation security that would be offered in the near future before she highlighted EM's Integrated Tools (WebTRAGIS, ARG-US and RADTRAN) for transportation planning. The final topic that Ms. Edge discussed was the upcoming National Transportation Stakeholders Forum (NTSF) in Albuquerque, New Mexico on May 12-14, 2015. She noted that planning was underway and encouraged SSEB committee members to attend and actively participate in the NTSF working groups. In conclusion, Ms. Edge expressed her commitment to working with SSEB on future packaging and transportation issues.

The next speaker was Mr. James Mason, Institutional Affairs Manager / Emergency Management Manager of the National TRU Program at the Carlsbad Field Office (CFO). Mr. Mason began by displaying a few pictures of underground events (truck fire and drum breach) that occurred at the WIPP site in February 2014. He provided maps of the mine to illustrate the location where these activities took place. He informed the committee that the investigation into the truck was completed along with phase one for the drum. The second phase of the drum breach investigation is currently ongoing. Next, he moved on to discuss the recovery plan including decontamination of equipment and surface areas of the mine, in addition to preventative maintenance like roof bolting. Mr. Mason told the group that it would cost approximately \$242 million before WIPP was at a level of readiness to resume operations. He also mentioned that a new permanent ventilation system and supporting exhaust shaft would be required as a part of the process. As for the transportation elements associated with the site, Mr. Mason reiterated that no shipments have taken place since the incident and none are planned until the site is fully remediated. However, he did indicate that inter-site shipments might take place to allow for better waste management and characterization within the Department's complex. In the meantime, he stressed the importance of states to remain prepared by participating in training activities. He went on to discuss one such exercise, 2014 Louisiana WIPPTREX, that occurred in Ruston, Louisiana on October 9, 2014. He noted this event was his first WIPPTREX and he thought it was an excellent endeavor for testing communication and emergency response capabilities. He welcomed the other SSEB corridor states along the WIPP route to consider hosting a WIPPTREX and/or continue their training regiments to remain in a state of readiness.

Mr. Carlisle Smith, Director of the Hazardous Materials Program of the Commercial Vehicle Safety Alliance (CVSA) was the next presenter to address the group. Since there were quite a few new members in attendance at the meeting, he provided some historical reference about his organization including its initiation, structure, core activities and committee organization. Next, Mr. Smith gave a year in review of the Level VI Program. He noted that 6 certification classes had taken place, two (GA and TX) of which were held in the southern

region. During the year, 129 officers were trained (125 certified), which brings the grand total of certified Level VI inspectors to 919. He identified the dates for the Train the Trainer class and the schedule for the Level VI certification classes. He also went into further detail regarding the requirements necessary to maintain certification. Next, Mr. Smith provided some of the Level VI Inspection data and results for the year and showed the committee where they could retrieve this information. In conclusion, he spoke about the Level VI Program Peer Review which is intended as a form of outreach to learn about the differences amongst the state programs and to develop a list of best practices and lessons learned. South Carolina and Tennessee will be representing SSEB in the Peer Review.

The Transportation Emergency Preparedness Program (TEPP) Review was conducted by Ken Keaton of TRG Incorporated. Mr. Keaton indicated that he would provide the audience with an overview of the training activities that have taken place to date and the activities scheduled for the near future. He displayed a chart with the training courses in the southern region (108 classes) as well as the number of students (1,833) who have received credit. He gave an overview of the Technician Modular Emergency Response Radiological Transportation Training (TMERRTT) sessions which occurred in various states (NC, SC, VA and KY) throughout the region. He spoke briefly about the Radiation Specialist version of the MERRTT classes which had taken place in 2014. These courses featured the use of live sources during instruction. This offering for SSEB members took place in Lexington, Kentucky. Mr. Keaton also provided a MERRTT schedule in the region for 2015 which featured approximately 40 sessions including the potential for a full-scale live source exercise in a southern state. Next, he talked about the MERRTT revision process being conducted by the DOE TEPP Working Group to improve the current version of the training modules. He provided an overview of TEPP exercises completed in 2014, and talked briefly about their involvement in a full-scale exercise that was sponsored by the Virginia Department of Emergency Management. Another venture that he mentioned was improving the TEPP video products by reviewing the scripts and reshooting footage where necessary to reflect current practices. The videos are expected to be ready for release in September 2015. Another area which has been designated for improvement is the Needs Assessment. The TEPP Working Group will also adopt this task of upgrading this vital emergency preparedness tool. Lastly, Mr. Keaton gave the attendees a website address for TEPP resources.

Mr. Jack Tolbert, Hazardous Materials Officer for the Virginia Department of Emergency Management (VDEM), followed Mr. Keaton to give the Commonwealth's perspective on the full-scale exercise that was briefly addressed earlier. Mr. Tolbert began by giving some background on VDEM's mission, personnel and equipment available to respond to hazmat/radiological incidents. Next, he displayed pictures of sites and the scenarios for training, modified exercises and a full-scale exercise that took place in the Commonwealth during 2014. He began by showing photographs from the TMERRTT class that was held in Pulaski County, Virginia on March 8th. Mr. Tolbert then proceeded to give an

overview of the March 24th exercise in Bristol, Virginia that involved the fire and police services. Finally, the October 4th exercise in Scott County, Virginia was also depicted in the presentation through pictures and discussion. He noted that an after action report and improvement plan will be developed in order to benefit from the experiences of the exercises and he thanked Mr. Keaton and TEPP for all of their resources and making the entire process a successful undertaking.

Mr. Bert Crapse, Solid Waste Program Manager, gave the Savannah River Site (SRS) TRU Waste Program Update. He stated that he would provide an overview in regard to the overall status of the legacy program at SRS, recent events at WIPP, SRS's TRU waste inventory and plans for completing disposal of the legacy waste. He began by talking about how the waste, contaminated with plutonium - 238 and -239 isotopes, had accumulated at the site over the years before the acceptance criteria was developed at WIPP. He told the committees he would not dedicate much time to describing what happened at the WIPP site because Mr. Mason had thoroughly covered the topic earlier. Instead, he displayed a chart with the major recent site accomplishments which included: 1,652 shipments to WIPP, disposition of nearly 12,000 cubic meters of legacy TRU waste and 232 shipments to WIPP using the TRUPACT-III container. Mr. Crapse indicated that 615 cubic meters are remaining and that only 125 shipments will be necessary to complete the legacy TRU shipments at SRS. He showed photographs of the SRS TRU Pads which are used to safely house the TRU waste from the elements until it is transported to WIPP. In conclusion, he mentioned that the site could still generate additional TRU waste in the future depending on the Department's overall mission.

The Nuclear Fuels Storage and Transportation (NFST) Planning Project Update was delivered by Ms. Erica Bickford (AAAS Fellow / DOE Office of Nuclear Energy) and Ms. Elizabeth Helvey (North Wind Services). Ms. Bickford began by showing the group an organizational chart of DOE and where her specific agency was situated within the framework. She then updated the group on the NFST mission and expanded upon their charge to implement the recommendations of the Blue Ribbon Commission. She briefly talked about pending bipartisan legislation designed to create movement in regard to spent fuel management. Moving on to budget matters, she noted the Department requested \$30 million for an integrated waste management system. Ms. Bickford highlighted the major initiatives of the NFST program which included developing a National Transportation Plan, crafting the formula for the implementation of Section 180(c), creating a route planning tool and reporting on the status of shutdown sites. The next topic addressed by Ms. Bickford was the Stakeholder Tool to Assess Radioactive Transportation or START. The web-based application uses geographic information system data to facilitate the route selection process and preliminary routing analysis. She noted that a START Training Session would take place tomorrow on Thursday, December 11, 2014, at the conclusion of the SSEB meeting. The last topic Ms. Bickford addressed was the creation of a Routing Working Group which will be tasked with defining a standardized routing process. Next, Ms. Bickford turned the remaining of her allotted

presentation time over to Ms. Elizabeth Helvey (North Wind Services) to update the group on the proceedings of the Section 180(c) Exercise. She began by providing some historical relevance of the overall policy and transitioned into how the exercise would explore the framework of that policy. The exercise would entail that volunteer states would complete grant applications for planning and training activities and submit two 2-year work plans detailing such activities. Next, a mock Review Panel would evaluate the work plans and applications and issue a mock award. The exercise timeline was formulated so that the task could be completed prior to May 2015 and that a workshop could be held at the upcoming National Transportation Stakeholders Forum in Albuquerque, New Mexico to present the findings. In addition, a lessons learned report would be developed to capture the institutional knowledge gained from the exercise and such information could be used to revamp the overall Section 180(c) policy. Ms. Helvey proceeded to go thru each step of the exercise and informed the committees that volunteers would have to commit between 40-60 hours on this project and that periodic conference calls would be necessary to monitor progress and resolve issues. At the end of her presentation she asked for two volunteer states from the SSEB region; Mississippi and North Carolina agreed to participate in the endeavor.

Ms. Betsy Madru, Vice President of Government Relations for Waste Control Specialists (WCS) was the next speaker. Ms. Madru began by telling the committee of her organization's emphasis on safety and how that culture is implemented at WCS. She showed the group an aerial photograph of the different facilities that comprise the complex. She noted how WCS is the first compact disposal facility to be licensed for Class A, B and C low-level waste (LLW) in over 30 years. She went on to show additional photos of previous industry standards for these classifications of waste streams, which were basically trenches, and compared them to the WCS facility with its robust liner. She also described the site's treatment services, highlighted the dewatering system and talked about their newly licensed Type B cask (RT-100) and the ability of WCS to dispose of large reactor components like steam generators. Ms. Madru spoke to the committee about WCS contracting with WIPP to store TRU waste from the Los Alamos National Laboratory (LANL) until the WIPP facility is cleared to re-open. She then showed pictures of the canisters that were being used to house the standard waste boxes from LANL. In regard to future projects, she noted WCS submitted a Petition for Rulemaking to provide a disposal path for greater than Class C (GTCC) and GTCC-like LLW and that the site has interest in licensing, building and operating a consolidated interim storage facility for spent nuclear fuel.

Mr. Kevin Blackwell, Hazardous Materials Inspector with the Federal Railroad Administration (FRA) was next to address the SSEB committee. He began by talking about FRA's Safety Compliance Oversight Plan or SCOP. Most elements of the SCOP are the primary directives of the FRA's Office of Safety. The major components are Highway-Rail Grade Crossing Safety and Security, but it also addresses miscellaneous areas such as encouraging membership in the FRA State

Participation Program. The SCOP was developed because of the nature of the potential hazards associated with radioactive materials and a high degree of public awareness and concern with safety and integrity of SNF and HLRW shipments by rail. A revision of the SCOP is scheduled for 2015. The draft version of the SCOP will be distributed to the four state regional groups for comment and feedback. He also talked about how FRA examined the issue of rail routing from an infrastructure perspective. FRA officials visited shutdown reactor sites to examine rail service, infrastructure condition, car capacities and car loading capabilities. Mr. Blackwell mentioned that the Crystal River Nuclear Plant would be the first of these site visits, scheduled for early 2015, in the SSEB region. He discussed the Reciprocal Rail Inspection Project which is a pilot to see if CVSA Level VI like standards can be applied to rail shipments. He concluded noting that the dedicated train rulemaking is on hold due to the limited number of SNF and HLRW shipments by rail. Other potential projects being considered by the FRA include positive train control and new regulations for crude oil shipments by rail that could pose some applicability to rail movements of SNF and HLRW.

The latter portion of the first day of the meeting consisted of a round table discussion to highlight the activities of all states in attendance. After all states had provided an update, Mr. Wells reported on the status of activities at SSEB.

On the second day of the meeting Mr. Elgan Usrey, SSEB Consultant, further educated the group on the progress of Section 180(c) developments and facilitated a discussion about the timeline and requirements for the participants of the Section 180(c) Exercise. He informed the volunteer states that he would assist them in completing various aspects of the mock grant application and that he would be available to visit their state for additional planning in regard to the project.

Ms. Lianne Ing, Vice President of Bubble Technology Industries, was the last presenter of the formal meeting. She informed the group of her company's founding in 1988 as an industry leader in providing advanced products, services and contract research to protect against radioactive and explosive threats. She went on to mention that they work with law enforcement, security, energy, health care and aerospace agencies in over 25 countries. Bubble Tech is divided into five distinct business areas, but for the purposes of the group she focused on their new radiation detection equipment. The first product of the discussion was called "RadBump" which was a modular and portable gamma radiation sensor concealed inside a speed bump that could be used to monitor vehicular or pedestrian traffic. The "RadCompass" is a directional survey meter that is also used for gamma detection, but is intended for individual use and does not require the user to be a technical expert in regard to health physics and radiation. The final product called "FlexSpec" consisted of modular components that could be packaged and customized for a wide range of radiation detection applications. One of the variants for this system was a mobile configuration. After, Ms. Ing finished her PowerPoint presentation she took the group outside to demonstrate

the FlexSpec system that was retrofitted for a SUV. The group had the opportunity to explore the equipment in the rear of the vehicle and view the computer interface technology in the front console area.

The final order of business at the meeting was the announcement of the location and date of the next meeting of the Radioactive Materials Transportation Committee and the Transuranic Waste Transportation Working Group. Since the group continues to meet in conjunction with the NTSF for their Spring meeting, it was reported that they would gather again on May 12-14, 2105 in Albuquerque, New Mexico.

Upon conclusion of the formal meeting, the group departed for lunch. After lunch, the group reconvened to devote the remainder of the afternoon to START Training.

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