

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

Beau Rivage  
Biloxi, Mississippi  
November 27-28, 2012

## **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 November 27-28, 2012. The event was held at the Beau Rivage in Biloxi, Mississippi.

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 (Sandra Threath) and Chair of the Transuranic Waste Transportation Working Group (Elgan Usrey).

The first speaker at the meeting, Ms. Corinne Macaluso of the Department of Energy-Office of Nuclear Energy (DOE-NE), was not present but delivered her presentation via teleconference. Ms. Macaluso began by covering the eight recommendations of the Blue Ribbon Commission on America's Nuclear Future that addressed the areas of transportation and disposal. She noted the major emphasis of the report focused on efforts to develop multiple consolidated storage facilities, early preparation for large scale transportation planning and shipping cue considerations for stranded fuel at decommissioned sites. She also discussed the organizational structure of DOE-NE and where the Nuclear Fuels Storage and Transportation (NFST) Planning Project falls within the hierarchy. Next, she talked about some of NFST's transportation activities (revising Section 180(c), developing communication products, preliminary route studies, etc.) and storage activities (development of consent-based process, evaluation of standardized packaging, etc.). Ms. Macaluso closed by thanking the state regional groups for their contribution to the recent October 3-4th kick-off meeting in Washington, DC. and welcomed the opportunity to work more closely with the states as the NFST program evolves.

The next presenter at the gathering was Mr. Bill Mackie, Institutional Affairs Manager with the Carlsbad Field Office (CFO). Mr. Mackie began by giving a general overview of the Carlsbad facility and the various entities (contractors) that comprise the WIPP team. Next he talked about the total number of transuranic waste shipments (10,996) categorized by container and shipment origin site. During the life of the program, the Oak Ridge National Laboratory (ORNL) has conducted 131 shipment (over 175,000 miles) and the Savannah River Site (SRS) 1456 (over 2 million miles). He discussed planned shipments for FY2013, under a reduced funding scenario that involved a six month continuing resolution. Under this new format, SRS would be scheduled for 148 shipments and the overall baseline for WIPP would be reduced by approximately 400 shipments. He gave a brief review of the carrier audits of CAST and Visionary Solutions performed by CFO and the states which yielded no findings. Next, he discussed the incident/accident reports for the past year which detail minor occurrences which delayed or impacted shipments. He noted that one of the scenarios took place in Idaho when a shipment dispatched without authorization. Another finding involved a shipment accidentally missing a stop at a weigh station. A minor infraction occurred in Alabama involving a crack on an intake hose coming from the fuel tank which put the truck out of commission for 23 hours. Mr. Mackie also provided the committees with a list of safety enhancements adopted by their carriers to help with routing, anti-collision, lane departure, event logging, inspections, etc. He also showed a map detailing the national transportation routes and noted that the small-quantity site routes on the east coast were designated for closure. He discussed the transportation resources in terms of the available casks, trailers, tractors, mobile loading systems, drivers and mobile loading teams. The latest news in this area was the approval of a shielded container the size of a 55 gallon drum (three fit inside a HalfPACT) for use at SRS, ORNL and ANL for the transport of 30 gallons of remote-handled waste. One shipment will occur in calendar year 2013 pending the resolution of a court case. However because of the lead container, the shipment will be classified as contact-handled but counted officially as RH-waste. He advised the membership of the completion of the TRU Waste Transportation Plan and the Community Relations Plan. Lastly, Mr. Mackie talked about infrastructure improvements in and around the WIPP site and identified the training courses being offered by the WIPP program including TRANSCOM courses and the mention of a WIPPTREX in Louisiana in April 2013.

After the committees reviewed a DVD of the Newton and Walton County WIPPTREX held in Georgia in April of 2012, they reconvened to hear from a panel of private sector presenters in the business of high-level, low-level and mixed waste management.

Doug Weaver, Vice President of Licensing and Regulatory Affairs for Holtec International was the first speaker of the private sector panel. He mentioned the international and domestic markets which his company services. He talked about the work of the Blue Ribbon Commission and how their efforts will be linked to

the issue of waste confidence. He provided a history of nuclear waste policy in the U.S. which included the elimination of reprocessing and the designation and retraction of a national repository. Mr. Weaver explained how these principles led to the evolution of the dry storage industry of which Holtec is a part. He talked about the various horizontal and vertical systems currently utilized to store fuel onsite. He then proceeded to provide an illustration of Holtec's solution to the interim storage problem. Mr. Weaver's organization produces a system called the Underground Maximum or UMAX, which is currently pending an NRC license application. UMAX includes a multi-purpose canister, transport cask, transfer cask and a storage cask which is lowered into an underground vault and employs an air cooled design. Using this approach, only the closure lid would be visible from the surface which provides a security benefit from things such as an aircraft crash and reduces the exposure by being buried underground. In closing, he showed Holtec's small modular reactor design as an affordable alternative to full-scale reactors and as a safety upgrade in light of the accident at Fukushima.

Kurt Colborn, Technical Services Project Manager / Integration and Customer Service for Waste Control Specialists (WCS), was the second speaker of the panel. He provided some aerial photos of WCS and spoke regarding the disposal, storage and treatment/processing services offered by the site. WCS has licenses for both LLRW and mixed LLRW disposal. It consist of a Texas Compact Waste Disposal Facility with a capacity of almost 3,000,000 cubic feet and a Federal Waste Disposal Facility configured for 8,100,000 cubic feet. License terms for both facilities are 15-years with a provision for 10-year renewals. He also noted that the facility will take waste from generators outside of the compact based upon capacity. Next, Mr. Colborn focused on the difference of the WCS landfill design as compared to those used by their competitors. WCS uses a multi-layered cover system, a reinforced concrete disposal cell and is dug out of red bed clay which is less permeable to water than concrete. WCS also uses the best available technology such as modular concrete canisters for waste placement operations. According to Mr. Colburn, the conventional methods simply include a burial trench and use soil and sand bags for cover. He also emphasized the location of WCS is not above or adjacent to any underground drinking water supply. In terms of the operations, he showed photos of the various machinery (grappling equipment, grouters, irradiated hardware transfer system, etc.). In conclusion, Mr. Colburn spoke regarding the transportation aspects of the site by referencing its accessibility by truck or rail and describing the Type-B cask services.

Mr. Mike Wangler of the U.S. Department of Energy/Environmental Management/Office of Packaging and Transportation was the next presenter. He noted that he would be the official EM Program Manager designated to attend SSEB meetings and collaborate with the group. Mr. Wangler proceeded to provided a summary of activities at EM sites as well as specific programs within the Office of Packaging and Transportation. He began by noting there are 9,459 shipments planned for FY 2012. Furthermore, he identified cleanup milestones all across the DOE complex including 260 square miles at SRS and the next phase

of demolition at the Oak Ridge's K-25. He discussed the EIS for Greater-than-Class C LLW Disposal noting that the Final EIS, submission to Congress and the issuance of the Record of Decision would occur before the end of 2013. He specifically addressed the following key program areas: Packaging Certification, Emergency Preparedness & Outreach, Regulations & Standards, Transportation Risk Reduction and Program & Site Support. Mr. Wangler talked about a DOE-wide program for the certification of fissile and Type B packaging and reviewed the development of a new Order, 460.3: Physical Protection of Unclassified Irradiated Fuel in Transit. He informed the group that DOE Manuals are being eliminated and that the requirements identified in the manuals would be incorporated into DOE Orders. A NTSF working group will be established to assist with this process. In the Transportation Risk Reduction arena, Mr. Wangler gave an overview of the Motor Carrier Evaluation Program and the Transportation Safety and Operations Compliance Assurance Program. He also mentioned that he co leads the Transport Security Subgroup of the NRC's Radiation Source Protection and Security Task Force. In conclusion, Mr. Wangler expressed his commitment to working with SSEB on future packaging and transportation issues.

The Transportation Emergency Preparedness Program (TEPP) Review was delivered 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 (82 classes) as well as the number of students (1,456) who have received credit. He spoke briefly about the Technician Level and Radiation Specialist Modular Emergency Response Radiological Transportation Training (MERRTT) classes which meet specific competencies of training. These courses featured the use of live sources during instruction. These offerings took place in Maryland, Kentucky, South Carolina (TMERRTT) and Georgia (Radiation Specialist) respectively. Mr. Keaton also provided a MERRTT schedule in the region for 2013, most of which were in support of a Canadian shipping campaign. Next, he talked about the MERRTT revision process to improve the current version of the product and how it will incorporate a Case Histories Module. He also talked about the advent of a computer based training program. He provided an overview of TEPP exercises completed in 2012, three of which took place in the SSEB region. Lastly, Mr. Keaton gave the attendees a website address for TEPP resources before he gave an additional presentation to demonstrate the vision for creating the Case Histories Module.

Mr. Bert Crapse, TRU Waste Deputy Federal Project Director, gave the Savannah River Site TRU Waste Program Update. He began by stating that he would provide an overview in regard to SRS's TRU waste inventory, shipment numbers for FY12-13, TRUPACT-III implications and the SRS shipping process. He noted how American Recovery Act Funding has been used to accelerate TRU shipments and thereby cutting the SRS inventory in half. The site is aggressively trying to disposition the remaining inventory, however there are programs at SRS that still

generate small amounts of waste. He displayed a chart with the major accomplishments for FY 2012 which included: 164 shipments to WIPP, disposition of 1,601 cubic meters of legacy TRU waste, remediation of 5,000 cubic meters of legacy TRU waste and 4 shipment per week using the TRUPACT-III container. He explained how some of the material on the site had to be repackaged for transport to WIPP and the budget ramifications for such associated actions. Some of the repackaging results in low-level waste that is sent to commercial facilities. He showed a graph detailing the legacy TRU status for FY-13. Mr. Crapse talked about the TRUPACT-III container dimensions and showed some pictures, including an aerial shot of the E-area Facilities, of how it is loaded as well as the TRUPACT-II at SRS. Finally, he mentioned the scope of the FY 2013 SRS TRU Waste Program Shipping Plans. The basis of the plan maintains the current disposition figures and TRUPACT-III schedule, but also projects approximately 180 shipments for the fiscal year.

Mr. James Landrum, Hazardous Materials Program Specialist with the Federal Motor Carrier Safety Administration (FMCSA) was the next speaker. He indicated that the information contained in his presentation was all based upon the premise of FMCSA's Strategic Plan Initiatives. The Initiatives have higher standards for motor carriers in regard to safety and compliance and are designed to remove unsafe drivers and carriers from the roadways. One mechanism to address this theme is a change in crash and out of service rates within the hazardous materials safety permit criteria. He also provided a website address which documents the changes to the area of Compliance, Safety and Accountability which include more accurately identifying carriers involved in transporting both hazardous materials and passengers. Next Mr. Landrum displayed a slide shot of the FMCSA database which categorized large volumes of information by such titles as violations, inspection history, on-road performance detail, investigation results detail, etc. Finally, he showed some photographs of notable or high-profile cargo tank rollovers and incidents. Mr. Landrum explained what happened in all of the incidents and summed up his presentation by stating that the activities associated with the Initiatives are designed to reduce the number of serious highway incidents and fatalities that involve cargo tank rollovers.

Mr. Earl Easton, Division of Spent Fuel Storage and Transportation of the U.S. Nuclear Regulatory Commission was the final speaker of the conference. Mr. Easton indicated that he would cover four topics during the course of his presentation: Accident and Risk Studies; Waste Confidence Ruling; Extended Spent Fuel Storage and Transportation and Transportation Security Rules. In the area of studies, Mr. Easton stated that the rail and highway survey and the Baltimore and Caldicott Tunnel Fire studies were complete and available for receipt. The McArthur Maze and Newhall Pass studies will be open for public comment in early 2013. In regard to Waste Confidence, Mr. Easton informed the group that a dedicated organization has been formed to take up the issue and that a new decision and rule will be forthcoming within 24 months and the EIS scoping process will begin immediately. He discussed several areas of

examination by the Commission regarding Extended Spent Fuel Storage and Transportation. Some areas of investigation included effects of residual moisture after drying, potential concrete degradation, and stress corrosion cracking of stainless steel canister body and welds in marine atmosphere. For Transportation Security Rules, he displayed several Federal Register Notices pertaining to transportation security areas (10 Part 37 - RAMQC Security / 10 Part 73.37 - SNF Transportation Security) that he thought might be of interest to the state members for providing comments. Lastly, he mentioned the availability of the DRAFT NRC Tribal Protocol Manual detailing a consultation process with tribal nations. Mr. Easton took the remainder of his allotted time to educate the committees on a variety of timely topics such as spent fuel pool fires, reactor design, interim storage and heat decay.

The latter portion 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.

The final orders of business at the meeting was the election of new officers and the location and date of the next meeting of the Radioactive Materials Transportation Committee and the Transuranic Waste Transportation Working Group. The members selected Michael Broderick (OK) and Alan Jacobson (MD) as Chair and Vice-Chair of the Radioactive Materials Transportation Committee and Brian Maske (MS) and Stephen Clark (GA) as the Chair and Vice-Chair of the Transuranic Waste Transportation Working Group. Since the group continues to meet in conjunction with the NTSF for their Spring meeting (May 14-16, 2103 in Buffalo, New York), the schedule for the next individual meeting would most likely take place during the November-December timeframe. It was decided that an appropriate location would be Charleston, South Carolina.

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