

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

Seelbach Hilton Hotel
Louisville, Kentucky
December 13-14, 2023

Meeting Summary

The Southern States Energy Board's (SSEB) Joint Meeting of the Radioactive Materials Transportation Committee and the Transuranic Waste Transportation Working Group took place on December 13-14, 2023. The event was hosted at the Seelbach Hilton Hotel in Louisville, Kentucky.

Mr. Christopher Wells, Director of Nuclear Programs for the Southern States Energy Board, called the meeting to order. He greeted the attendees, acknowledged his fellow staff, provided logistical remarks and made a few administrative announcements. Following the brief comments, Mr. Wells turned over moderation duties for the initial day to Mr. David Johnson (Tennessee), Chair of the Radioactive Materials Transportation Committee who commenced with the self-introduction of all meeting participants.

The first speaker of the event was Ms. Ellen Edge with the U.S. Department of Energy/Environmental Management (EM) Office of Packaging and Transportation. Ms. Edge told the group she would provide an overview of EM's organizational structure and activities within her division, update of activities at the Portsmouth site, cleanup priorities and a review of the Transportation Compliance Assurance Program (TCAP). Ms. Edge described her office's placement and mission within the Department's management structure. She talked about significant cleanup milestones and the role of stakeholder engagement including referencing the DOE Order establishing consultation policies with tribes impacted by EM sites. Next, Ms. Edge displayed pie chart graphics illustrating EM shipment numbers and categories. She briefly talked about last year's National Transportation Stakeholders Forum (NTSF) and the planning for the 2024 event. Ms. Edge reviewed the progress of the NTSF Ad Hoc Working Groups and showed the FY23 national training numbers for the Transportation Emergency Preparedness Program (TEPP), noting the latter topic would be covered in greater detail by an upcoming speaker. Finally, she described the TCAP and the systematic process for ensuring DOE and its contractors are compliant with all regulatory requirements in regard to packaging and transportation operations.

Second to address the Committees was a rail panel consisting of Jeffrey Moore (Federal Railroad Administration), Patrick Brady (BNSF Railway) and Andy Elkins (Association of American Railroads). Mr. Moore began by describing the six main operating disciplines of rail inspection before transitioning to the changes in the Safety Coordination and Compliance Oversight Plan which is applicable to high-level radioactive waste and spent-fuel shipments. Next, Mr. Brady began to discuss federal regulations versus industry standards. He talked about security and the amount of detail utilized by rail carriers to determine risk route analysis. He talked about the procedural mechanisms in place for rail safety and technology being employed by the industry such as positive train control. Finally, Mr. Elkins shared his perspective of best practices and the future outlook of rail transit in conjunction with DOE campaigns.

Next, Mr. James Mason (Institutional Affairs Manager) and Mr. Bobby St. John (External Communication Manager of Salado Isolation Mining Contractors) provided the Waste Isolation Pilot Plant (WIPP) update. Mr. St. John began by informing the group WIPP has received 13,749 shipments since it opened in 1999 and is gradually approaching 16.5 million loaded safe miles of transport. Currently, the facility's receipt rate is approximately 10-12 shipments per week. He noted the target rate was to increase to 15-17 and outlined the activities which needed to be accomplished to meet the goal. He described the detailed mining activities underway to meet the disposal volume requirements identified in WIPP Land Withdrawal Act. The most significant capital projects continue to be the installation of an improved ventilation system, construction of the Salt Reduction Building and Filter Building and the sinking of the utility shaft. All of the capital projects were over 80% complete. He concluded by noting several recent general plant accomplishments including value-added project management, substation upgrades and fire system improvements. Mr. Mason provided an overview of WIPP's mission and the specifications of the site. He issued figures for FY23 which yielded the receipt of 473 total shipments from Argonne, Los Alamos, Lawrence Livermore, Idaho, Oak Ridge and Savannah River as active Laboratory shipping sites. Mr. Mason also noted there would be no shipments during February as the site shuts down for general maintenance. Lastly, he talked about the development of a new concept for hosting WIPPTREX which would involve a station-type training format. The new approach will be tested in the new year in Nevada.

The Transportation Emergency Preparedness Program Review was delivered by Dan Mills of TRG Incorporated. He told the Committees he would provide an overview of the TEPP mission, training taken place to date, activities scheduled for the near future, training program revisions, improvement projects and available website resources. He displayed a chart with the FY 2023 training courses in southern region by individual state. He also provided an estimate of the FY 2024 courses planned to be delivered to SSEB member states pending available funding. Next, he talked about the TEPP Products including the Model Needs Assessment and procedures as well as exercise scenarios for various

response incidents. He provided an update of the TEPP Improvement Projects including a history of the MERRTT modules from 1998 until present. He discussed the merger with WIPP's STEP training and how some MERRTT modules have been eliminated or combined to form the current product. Other components of the Improvement Projects included a continued partnership with the Office of Secure Transport (OST) to have their agents assist with training on the OST classified shipment module. Furthermore, he discussed MERRTT Improvement Items such as new flatsheets for decontamination corridor dressdown, armed law enforcement, patient handling and for hospital care providers. Lastly, Mr. Mills gave the attendees a website address for TEPP resources with specific reference to the online MERRTT refresher.

Mr. Herbert Crapse, DOE-Savannah River Site, presented on Plutonium Downblending activities taking place at the K-Area Complex. He described how the process came about from the Record of Decision to the packaging of waste to meet WIPP's acceptance criteria. The overall mission was a joint collaboration between EM and the National Nuclear Security Administration. Mr. Crapse provided a timeline for the duration of the project from Plutonium production to the first shipment in December 2022. He spent additional time detailing the various types of containers for the different aspects of the project. He also mentioned the chronology of characterization and shared how the campaign has impacted the storage inventory on the site. Finally, Mr. Crapse noted the progress to date in terms of downblending and shipments and referenced future priorities.

Ms. Sara Hogan of DOE's Office of Nuclear Energy's (DOE-NE) Office of Integrated Waste Management was the next speaker to address the SSEB Committees. She talked about how her Office's mission is tied in conjunction to the language in the FY2024 draft appropriation which is primarily geared towards siting a Federal interim storage facility utilizing the consent-based approach. Ms. Hogan highlighted major activities for her office including full-scale package testing, developing a path for acquisition of casks, evaluating transportation infrastructure from shutdown and operating nuclear power plants, and continued engagement with the states and tribes regarding all aspects of implementing a national transportation program. She informed the Committees of new leadership as Paul Murray joined the Department as the new Deputy Assistant Secretary for Spent Fuel and Waste Disposition, NE-8.

Ms. Hogan turned her focus to consent-based siting and noted the current stage is dedicated to planning and capacity building. She went into great detail about the development of the Consortia and their topics of interest in regard to the initial phase of the consent-based siting process. She also talked about webinars, meetings, outreach opportunities and other future steps of the process. Next, she shifted her focus to the major programs being undertaken by the Office of Integrated Waste Management. Pertaining to the topic of rail, Ms. Hogan elaborated on DOE-NE's fabrication and maintenance schedule for the development and testing of rolling stock. The 12-axle ATLAS completed testing

and was involved in a roundtrip demonstration run from Colorado to Idaho. The 8-axle FORTIS is experiencing fabrication delays due to supply chain issues. She stated her department continues to conduct nuclear power plant infrastructure evaluations, the majority of which are located in the northeast and midwestern regions of the U.S. Next, she gave a brief overview of DOE-NE / NTSF Ad Hoc Working Groups including SNF Rail/ Routing, Section 180(c), and Communications and Outreach. She briefly addressed the areas of advanced nuclear and its role in the transportation framework, the package performance study which attendees would hear about in greater detail later in the meeting, design concepts for an interim storage facility and collaborations between DOE and its international sister organizations.

The next speakers of the event were Ms. Raven Alexander (Texas Department of State and Health Services) and Mr. Jason Johnson (Texas Division of Emergency Management) who reported on the planning and execution of a WIPPTREX in Pecos, Texas. Mr. Johnson began by displaying the WIPP route thru the state of Texas. He emphasized the building of the state's WIPP program was focused in the areas of planning efforts, training emergency response personnel, preparedness exercises and educating the public. Ms. Alexander delved into the plan development for the exercise, noting this was the 10th exercise to take place in Texas. She talked about an important aspect of the exercise was to provide hospital staff with appropriate knowledge of how to handle radiological incidents. She explained how all the different agencies involved in the undertaking gathered to identify goals and exercise objectives. She provided a chart identifying the training schedule and other important dates leading up to the exercise. Mr. Johnson went into further detail in explaining how they assisted each entity in establishing practical objectives. The presentation included many photographs of the planning process as well as the actual event. Upon conclusion of the WIPPTREX, participants provided feedback and lessons learned which were incorporated into an Exercise After Action Report.

The next portion of the meeting consisted of a round table discussion to highlight the activities of all states in attendance, in addition to hearing reports from the other regional groups and the tribes. After all participants had provided an update, Mr. Wells reported on the status of activities at SSEB.

The final speaker of the first day of the meeting was Ms. Miriam Holladay Juckett, Pacific Northwest National Laboratory, who led an interactive discussion regarding DOE's plans for a spent nuclear fuel transportation package performance demonstration. She provided the history of package performance demonstrations and explained why DOE is planning one for the future. She noted testing performed in the U.S. and abroad to convey the safety aspects of spent nuclear fuel casks in performing their duty. She even noted instances of plans to conduct a study by the Nuclear Regulatory Commission in the 90's which was eventually suspended. Ms. Juckett noted despite substantial data and computer model testing, organizations such as the National Academy of Sciences and the Blue-Ribbon Commission on America's Nuclear Future have advocated

for full-scale cask testing. She dedicated the remainder of her time to seeking insight from the audience and describing the stakeholder engagement plan which involves gathering input from states and tribes and using their experience as a conduit to determine what stakeholders would want to gain from a package performance demonstration.

The second day of the meeting began with an administrative business session led by Mr. Christopher Wells. He told committee members to be expeditious in returning their expense reports because the SSEB office would be closing soon for the holidays. Following these remarks, Mr. Wells introduced Mr. Mark Wyland of Georgia who was serving as the Chairman of the Transuranic Waste Transportation Working Group. Mr. Wyland formally commenced the second day of the meeting by initiating the introduction of all presenters as identified on the program agenda.

The second day of the conference was dedicated to Stakeholder Tool for Assessing Radioactive Transportation (START) Training. Ms. Sara Hogan and Mr. Mark Abkowitz (Vanderbilt University) provided a brief presentation on the START application before initiating the training. The presentation overviewed the history and evolution of the tool and introduced the participants to its various features and functions. Many of the slides also provided examples of exercises to be performed during the actual training such as using base map options, generating and evaluating routes, examining output data and the other numerous points of information available within the tool. After the conclusion of the presentation, Mr. Abkowitz led the training class which consisted of learning to use the base functions and proceeding to conduct a series of routing exercises.

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 June 3-6, 2024, during the Annual Meeting in Denver, Colorado.