

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

Margaritaville Hotel
Nashville, Tennessee
December 16-17, 2021

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 16-17, 2021. The event was hosted at the Margaritaville Hotel in Nashville, Tennessee.

Mr. Christopher Wells, Director of Nuclear Programs for the Southern States Energy Board, called the meeting to order. He welcomed the attendees, presented his fellow staff, provided logistical remarks, and made a few administrative announcements. Following the brief comments, Mr. Wells relinquished moderation of the initial day to Mr. Quinton Dailey (Alabama), 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. Julia Shenk with the U.S. Department of Energy/Environmental Management (EM) Office of Packaging and Transportation. Ms. Shenk told the group she would briefly discuss EM's organizational structure and activities within her division, cleanup priorities and site updates. However, she noted her primary intent was to get to know the membership of the SSEB in her present role as the Director of EM's Office of Packaging and Transportation and Chair of the National Transportation Stakeholders Forum (NTSF). Ms. Shenk described her office's placement and

mission within the Department's management structure. She also talked about several remediation milestones accomplished throughout the EM complex. Next, she specifically addressed the Department of Energy (DOE) Order revision process. She described the Department's undertakings regarding DOE Order 460.2B (Departmental Materials Transportation and Packaging Management) to ensure the safe, secure, efficient packaging and transportation of materials, both hazardous and nonhazardous. The outcome of the process is being considered as plenary or breakout session at the upcoming 2022 NTSF. Ms. Shenk ended her presentation by informing members of the 2022 National Transportation Stakeholders Forum being hosted by the Council of State Governments - Northeast in Philadelphia, Pennsylvania on June 6-9, 2022. Lastly, she directed attendees to visit the new NTSF website for additional information and access to NTSF resources.

Next, Mr. James Mason (Institutional Affairs Manager) and Mr. Bobby St. John (Deputy Manager of Nuclear Waste Partnership Communications) provided the Waste Isolation Pilot Plant (WIPP) update. Mr. Mason provided an overview of WIPP's mission and the specifications of the site. He noted in FY21 199 shipments were conducted over 220,000 miles enroute from the national laboratories to the WIPP site. Mr. St. John began by noting several recent accomplishments including panel mining, improved project management and the integration of electric construction vehicles. He proceeded to inform the group WIPP has received in excess of 13,000 shipments since it opened in 1999 comprising over 15.5 million loaded safe miles of transport. Currently, the facility averages a receipt rate of approximately 5-7 shipments per week. The most significant capital projects continue to be the installation of an improved ventilation system, construction of the Salt Reduction Building and the sinking of the utility shaft. In the meantime, the 700-C legacy fan will be restarted to increase airflow until the ventilation system is online. Additionally, he spoke about several general projects involving fire protection and the upgrading of equipment. In conclusion, he noted the borehole emplacement approach for remote-handled TRU waste has initiated a startup evaluation involving training,

system checks, equipment reviews and overall operational preparedness. After the presentation, Mr. James Mason mentioned the Department had procured land and facilities near the Carlsbad Field Office for integration into the objectives of the national program. He noted the property used to be a fire academy and he envisioned transforming it into a training site for the WIPP program to include classroom courses and hands-on field exercises such as modified or full versions of a WIPPTREX. The site would be a great resource for first responder training, TRANSCOM Training, and workshops for WIPP state program managers and financial personnel regarding grants and cooperative agreements. Groups who visited the training site could also tour WIPP as a part of their regimen.

Ms. Erica Bickford 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 began by identifying new senior leadership (Dr. Kathryn Huff – NE) / (Dr. Kimberly Petry – Spent Fuel & Waste Disposition) as well as the acquisition of new personnel for her office to support consent-based siting and other activities. She provided a slide to inform the participants of the Office of Integrated Waste Management's latest publication. She talked about how her Office's mission is tied in conjunction to the language in the FY2022 appropriation which is primarily geared towards interim storage. 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. Bickford elaborated on DOE-NE's fabrication and maintenance schedule for the development and testing of the 12-axle ATLAS and 8-axle FORTIS railcars. In addition, she shared about the integration of security measures into the shipping protocols. She noted her department continues to conduct shutdown nuclear power plant site visits, the majority of which are located in the northeast and midwestern regions of the U.S. She mentioned upgrades to the Stakeholder Tool for Assessing Radioactive Transportation (START) application would be completed by the end of the year. She also noted preliminary plans for full-scale cask testing were being incorporated into program activities in anticipation of

future transportation. Ms. Bickford informed the group the work of the NTSF Section 180(c) Working Group would be summarized by her office and archived for knowledge management purposes. She talked about rail transport initiatives such as the revision of the Federal Railroad Administration's (FRA) Safety Compliance Oversight Plan and the development of a rail safety inspection protocol. She did not speak further regarding the inspection protocol as Mr. Steve Maheras was scheduled to address the topic at the end of the day. In conclusion, Ms. Bickford gave an overview of the renewal of the consent-based siting process and some links for resources to gather more information.

Mr. Tom Clawson, TRG Incorporated, gave the Committees an incredibly special briefing about his visit to the Chernobyl Nuclear Power Plant in Ukraine 35 years after the fatal accident. TRG's Radiation Specialist Chernobyl Experience is a weeklong applied radiological response course developed in partnership with the Chernobyl Nuclear Power Plant (ChNPP) in Ukraine. The Chernobyl Power Complex is located approximately 80 miles north of Kiev, Ukraine and roughly 12 miles south of the border of Belarus. Because the course is conducted as a partnership between TRG and the ChNPP, it offers a once-in-a-lifetime opportunity to see first-hand the site of one of the worst nuclear power plant accidents in history. The educational opportunity includes official plant-sponsored technical tours inside the Chernobyl Power Plant and surrounding area located inside the Chernobyl Exclusion Zone. In addition to the plant, the experience offers the opportunity to visit and tour the ghost town of Pripyat, which is located less than 2 miles from the reactor. The town's 49,000 inhabitants were hastily evacuated the day after the accident and the town has remained empty for over 30 years. Group size is limited to 12 and participants are encouraged to bring their own radiation detection equipment. While outlining the details of the week-long event, Mr. Clawson displayed a photo montage of the various aspects of the trip.

The next speaker of the conference was delivered remotely by Mr. Carlisle Smith, Director of the Level VI Program with the Commercial Vehicle Safety Alliance

(CVSA). He informed everyone FY2021 was the final year of the CVSA 5-year cooperative agreement with the Carlsbad Field Office and a new agreement was in place for 2022-2026. Mr. Smith covered many topics including certification classes, training, public outreach, peer review and the Level VI data report. He noted many Level VI classes had to be cancelled due to COVID-19 travel restrictions; however, three virtual classes were conducted between May and August 2021. Mr. Smith proceeded to show multiple slides detailing the resumption of face-to-face classes in 2021 and a schedule of upcoming courses for FY 2022. Finally, he showed images of CVSA's web portal Learning Management System for conducting Level VI classes online.

Next, the committee heard from Mr. Gerard Jackson of the Nuclear Regulatory Commission (NRC). Mr. Jackson informed the group he would be providing a brief overview of the handling of safeguards information and a few other ongoing activities at the Commission. He began by giving definitions, Code of Federal Regulations, penalties and other references in regard to the topic of safeguards. He proceeded to give a detailed overview of the various forms of information which would fall under the auspices of NRC safeguards such as documents, passwords, design features, orders, etc. He proceeded to explain the rules for determining who has a right to receive safeguards information and how the information should be shared, if possible. Mr. Jackson talked about the physical protection requirements of storing and transporting the sensitive data. Furthermore, he went into detail about transmission via a computer and telephone and the eventual destruction of safeguards information. Mr. Jackson reiterated his expertise was in the area of security, but he did briefly mention the status of the Waste Control Specialists and Interim Storage Partners license applications. Finally, Mr. Jackson concluded his presentation by alerting Committee members NRC staff had recently completed a review of the agency's regulatory readiness for potential large-scale commercial transportation of spent nuclear fuel across the country if the proposed consolidated interim storage facilities are approved, constructed, and begin operation. He wrapped up the discussion by informing the audience he had brought several hard copies of the

Safeguards Information Regulatory Guide, Safeguards Information Marking Guide and the Safeguards Information Designation Guide.

The Transportation Emergency Preparedness Program (TEPP) Review was delivered by Tom Clawson of TRG Incorporated. Mr. Clawson told the Committees he would provide an overview of the 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 2021 training courses in the southern region (27 classes - 4 of which were delivered by state instructors) as well as the number of students (450) who have received credit. Mr. Clawson noted for FY2022 (30) MERRTT or Compressed MERRTT (CMERRTT) classes were scheduled throughout the southern region for the remainder of the year as well as (12) Technician Modular Emergency Response Radiological Transportation Training sessions, (4) hospital sessions, (2) Radiation Specialist session and (3) exercises in various states. Next, he talked about the finalization of the MERRTT revision process from 2020 which included merging some MERRTT modules (5 and 7), updating others, adding specific hands-on practicals and improving the graphics. He provided an update of the TEPP Improvement Projects including continued agency cooperation with the National Fire Protection Association regarding hazardous materials/weapons of mass destruction applicable standards and practices, in addition to working with the Federal Emergency Management Agency (FEMA) Center for Domestic Preparedness and participating with the agency in the National Radiological Training Coordinating Group. Other factors of the Improvement Projects included the use of RadResponder in advanced TEPP classes and partnering with the Office of Secure Transport (OST) to have their agents assist with training on the OST classified shipment module. Lastly, Mr. Clawson gave the attendees a website address for TEPP resources.

Mr. Curt Pendergrass, Kentucky Radiation Health Branch, spoke briefly about an exercise scheduled for early next year. A full-scale exercise entitled Operation Northern Exposure will take place in Burlington, Kentucky in the spring of 2022.

He noted the exercise scenario is still being developed but, the preliminary events are based on a multivehicle (3) incident: one vehicle hauling radioactive material; another vehicle on fire with an entrapped occupant; and a third vehicle (delivery truck) as a distractor. Participant play will include first responder agencies to extinguish the fire, rescue/transport the victim to the hospital and the regional hazardous materials team to manage the radioactive material release.

In addition to the local/county responders, plans are to also include the Kentucky Radiation Health Branch and Kentucky Emergency Management Agency's involvement in the exercise.

With the majority of SSEB's member states belonging to either region 2 or 3 of DOE's Radiological Assistance Program (RAP). The committees had the pleasure of hearing from Mr. Bill Reding, RAP Region 2 Program Manager. Mr. Reding is the replacement for Mr. Steven Johnson and was therefore a first-time attendee of the SSEB Radioactive Materials Transportation Committees Meeting. Mr. Reding spoke regarding the Nuclear Emergency Support Team, provided an overview of RAP, a synopsis of RAP responses which occurred in both regions 2 and 3 during the year and upcoming events for 2022. He displayed graphics which showed which states comprised each region and provided the contact information for the RAP Regional Program Manager. Mr. Reding also displayed slides with a list of past, present and future activities supported by the RAP Teams. For instance, region 2 supported events such as the Kentucky Derby and Super Bowl 55 to name a few whereas region 3 also supported Super Bowl 54, the Republican National Convention, The Masters Golf Tournament and many other major sporting events, conventions, exercises and other special occurrences.

The Federal Railroad Administration's (FRA) Hazardous Materials Specialist, Jeffrey Moore, presented remotely regarding issues pertaining to an incident in Bedford Park, Illinois involving a rail car fire containing radioactive materials. He described how an initial report received by the FRA from the National Response Center spiraled into a huge investigation to determine how the fire started in the rail car while inside of a rail yard. His presentation included detailed information

of investigating the shipping papers and transloading operations. As the investigation unfolded, FRA would eventually solicit the support of the NRC, Illinois Commerce Commission and Illinois Emergency Management Agency Division of Nuclear Safety to come to a resolution. The conclusion of the investigation yielded some interesting results and lessons learned in regard to packaging, shipping paper documentation and regulatory guidelines.

The last speaker of the day was Steve Maheras, Pacific Northwest National Laboratory, who provided a background and overview of DOE's Draft Railcar Safety Inspection Protocol. The objective of the protocol was to establish guidelines for rail shipments of spent fuel similar to those used by the CVSA's Level VI Inspections during highway transport. Mr. Maheras noted the main intent was a process where inspectors perform their tasks upstream and share the results downstream with jurisdictions. He provided a brief history of the program including other work products and assumptions which had contributed to bring the project forward to its current iteration. Before going into detail about the elements of the inspection protocol, he displayed several graphics of a rail consist so members could familiarize themselves with the terminology and how the process would unfold. Next, he proceeded to show illustrations and charts of various rail concept of operations and transport modes for moving spent fuel from origin to destination sites. He reviewed all of the pertinent regulations regarding rail inspections and transport and even displayed what a potential inspection chart would look like. Lastly, he provided a list of additional items for discussion amongst the NTSF Spent Nuclear Fuel Rail/ Routing Ad Hoc Working Group for incorporation into the inspection protocol. Upon conclusion of his presentation, Mr. Maheras asked members of the Committees to review the Draft Protocol and provide comments to Mr. Christopher Wells for submission. Mr. Wells also noted he wrote to the President of the Association of State Rail Safety Managers, requesting assistance to facilitate an organizational review and provide comments to the Protocol from their fellow state managers within the Federal Railroad Administration's State Rail Safety Participation Program.

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 Ms. Denise Brooks of Texas who was serving as the Chairman of the Transuranic Waste Transportation Working Group. Ms. Brooks formally commenced the second day of the meeting by initiating the introduction of all presenters as identified on the program agenda.

The final speaker of the gathering was Ms. Katrina McMurrin, Executive Director of the Nuclear Waste Strategy Coalition. She began by providing an overview of the membership and mission of the organization. She noted she would address the challenges and offer solutions and opportunities for solving the nation's problem with the management and disposal of spent nuclear fuel and high-level radioactive waste. She talked about the approaches attempted in the past up to the consent-based siting process of today. In terms of solutions, she described an integrated waste management system and also called for funding and government reform to push the program forward. She also highlighted a letter sent to DOE Secretary Granholm from the Coalition identifying concise actions for nuclear waste management.

The remaining 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 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 6-9, 2022, during the Annual Meeting in Philadelphia, Pennsylvania.

