

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

DoubleTree by Hilton Grand Hotel Biscayne Bay
Miami, Florida
December 11-12, 2019

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 11-12, 2019. The event was hosted at the DoubleTree by Hilton Grand Hotel Biscayne Bay in Miami, Florida.

Mr. Christopher Wells, Assistant 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 and administrative announcements and commenced with the self-introduction of all meeting participants. Following the brief remarks, Mr. Wells relinquished the meeting duties of the initial day to Mr. Roger Thompson (Tennessee), Chair of the Radioactive Materials Transportation Committee.

The first speaker of the event was Mr. Demitrous Blount with the U.S. Department of Energy/Environmental Management (EM) Office of Packaging and Transportation. Mr. Blount told the group he would discuss EM's organizational structure and activities within his division, budgetary outlook, cleanup priorities and site updates. Mr. Blount displayed an EM organizational chart and identified where the Office of Packaging and Transportation stood within the management structure. Next, he talked about EM's 30 Year Anniversary highlighting its formation in October 1989 and singling out other key events like the first WIPP shipment in May 1999 and remediation work completed at Knolls Atomic Power Laboratory in August 2019. Mr. Blount indicated that over a third (37%) of EM's FY 2020 budget (\$6.469 Billion) was committed to radioactive tank waste issues. He provided a slide geared to waste disposition activities at a southern site, Paducah, within the EM complex. Most of the work involved measures to facilitate uranium deposit removal. Next, he specifically addressed the DOE Order revision process. He described the Department's undertakings regarding DOE Order 460.2A (Departmental Materials Transportation and Packaging Management). An integrated project team continues to perform an extensive review of the Radioactive Materials Transportation Practices Manual with subject matter experts dedicated to

specific topical areas. He noted prior input from the tribes and states was considered and draft revision should be complete in early 2020. Mr. Blount concluded his presentation by alerting members of the 2020 National Transportation Stakeholders Forum (NTSF) being hosted by the Western Governors' Association in Scottsdale, Arizona in May 2020.

Mr. Bobby St. John, Deputy Manager of Nuclear Waste Partnership Communications provided the Waste Isolation Pilot Plant update. 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 12,600 shipments since it opened in 1999 and over 270 during the present calendar year. Currently, the facility averages a receipt rate of approximately 8-10 shipments per week. He briefly described a few inspection results and two minor incidents, not WIPP driver related, which took place during transportation earlier in the year. The most significant capital projects continue to be the installation of an improved ventilation system and a utility shaft/access road bypass. Additionally, he spoke about several general projects involving upgrading equipment and operations. In conclusion, he indicated future shipments would occur on an average of 14 per week and the southern sites are still heavily involved in the shipping queue. After the presentation Mr. James Mason, Institutional Affairs Manager, of the National TRU Program at the Carlsbad Field Office informed the committee he would like to conduct a workshop involving state WIPP program managers and financial personnel along with their DOE counterparts to develop more consistency and familiarity with issues pertaining to grants and cooperative agreements.

Ms. Erica Bickford of DOE-NE's Office of Integrated Waste Management provided a briefing via teleconference. She began by speaking about how her office's mission is tied in conjunction to the language in the FY2020 appropriation which primarily geared towards interim storage. She also provided an update on the work of the NTSF Rail/Routing Ad Hoc Working Group and its involvement with contributing to the revision of the Federal Railroad Administration's Safety Compliance Oversight Plan and the development of a rail safety inspection protocol. Pertaining to the topic of rail, Ms. Bickford elaborated on DOE-NE's fabrication and maintenance schedule for the development of an 8 axle ATLAS railcar. In addition, single and multiple railcar testing within the consist continues at the Transportation Technology Center. She noted her department continues to conduct shutdown nuclear power plant site visits, but an emphasis has been placed on touring those with the oldest fuel potentially including operating sites. Finally, she mentioned the updates to the Stakeholder Tool for Assessing Radioactive Transportation (START) application and the availability of training.

Next, the committee heard from Mr. David Pstrak of the Nuclear Regulatory Commission (NRC). Mr. Pstrak informed the group he would be providing a brief overview of several ongoing activities at the Commission including package

testing, license applications for interim storage facilities and information regarding NRC transportation studies. He began by listing the broad regulation authority the NRC has in regulating spent fuel shipments including the certification of casks, inspections, enforcement of NRC and Department of Transportation rules and other measures. He gave a quick overview of the free drop, puncture, thermal and immersion criteria for the certification of packages. Mr. Pstrak also provided a refresher for what qualifies radioactive materials to be shipped in a Type B package. Mr. Pstrak noted the Waste Control Specialists (WCS) license application was suspended by NRC in April 2017, but the new applicant Interim Storage Partners requested a resumption in 2018. The Holtec International and Eddy-Lea Energy Alliance application is currently in technical review and subsequent supplemental information has been requested and provided. Safety and environmental reviews for both projects are anticipated to be completed by mid-2021. Finally, Mr. Pstrak concluded his presentation by alerting committee members of the availability of NRC publications and several pertinent Federal Register notices in addition to transportation studies pertaining to spent fuel and severe accident conditions.

Mr. Mike Firsick, Connecticut Department of Energy and Environmental Protection, attended the conference as a representative of the Council of State Governments-Northeast High-Level Radioactive Waste Transportation Task Force. Mr. Firsick provided an overview of the remediation project of the United Nuclear Corporation (UNC) Naval Products facility located in New Haven, Connecticut. The facility was used for research and fabrication of nuclear fuel components for the U.S. Navy. The primary radioactive material used at the site was enriched uranium. He began with a brief history of the site including its status during several presidential administrations. The cleanup of the site was a slow perilous process which included the discovery of contamination in the sewer lines. Eventually DOE accepted responsibility for the cleanup, developed a characterization plan and initiated activities in 2011. Mr. Firsick displayed several photographs of the site during phases of remediation, some of which containing the discovery of additional contaminated materials. The NRC continues to monitor the site for verification of UNC's Radiological Survey Plan.

The committees' received an overview of the interim report entitled "Disposal of Surplus Plutonium at the Waste Isolation Pilot Plant". Ms. Jennifer Heimberg of the National Academies served as the study director for this endeavor. She described the structure of her organization with its divisions and various committees. The committee involved in the report fell under the auspices of the Nuclear and Radiation Studies Board whose mission areas include the examination of nuclear waste and cleanup activities. After identifying the members of the committee, Ms. Heimberg proceeded to reveal the advice (findings, conclusions and recommendations) derived from the study. Among the advice was to conduct a full programmatic environmental impact statement of the dilute and dispose option. Public engagement was also emphasized with a recommendation to engage with states and congressional delegations even prior to the National Environmental Policy Act requirements in order to develop and

maintain trust. Finally, it was proposed independent technical review teams should be incorporated into the process to represent the concerns of the repository state, New Mexico. Ms. Heimberg noted the final report is expected to be released in March 2020.

Mr. Mark Yeager, working in conjunction with the Oak Ridge National Laboratory (ORNL), updated the committees on the formation of a new project called the Transportation Security Unified Stakeholders Group (TSUSG). He informed the group of a security assessment performed by ORNL on shipments of specific Category 1 and Category 2 isotopes (Ir-192, Cs-137, Co-60 and Am-241) yielded potential vulnerabilities in the areas of physical protection, insider threat, response training, cyber security and risk management. The TSUSG held its inaugural meeting in September 2020 and brought together a group of shippers, carriers, law enforcement and regulators to develop a best practices approach to improve or resolve transport security concerns. He apprised the committees of (6) priority items or tasks the TSUSG is addressing through the efforts of subcommittees. Lastly, he told of Mr. Wells' involvement with the project and how he would like to leverage him as state regional group staff to solicit input from state personnel for incorporation into TSUSG outcomes.

The Transportation Emergency Preparedness Program (TEPP) Review was delivered by Ken Keaton of TRG Incorporated. Mr. Keaton 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 2019 training courses in the southern region (65 classes - 7 of which were delivered by state instructors) as well as the number of students (1,225) who have received credit. Mr. Keaton noted for FY2020 (25) MERRTT or Compressed MERRTT (CMERRTT) classes were scheduled throughout the southern region for the remainder of the year as well as (15) Technician Modular Emergency Response Radiological Transportation Training sessions, (3) hospital sessions, (1) Radiation Specialist session and (2) exercises in various states. Next, he talked about the finalization of the MERRTT revision process scheduled for January 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 to explore the possibility of offering a Radiation Specialist course on FEMA's campus 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. Keaton gave the attendees a website address for TEPP resources.

Following in the same vein of Mr. Keaton, Mr. Jamie Moore of the Monongalia County Health Department (West Virginia) provided a brief overview of how his Department improved their response capability through the acquisition of resources and training regimen including MERRTT. He began by identifying the Department's mission which involved population monitoring and community reception. In addition to MERRTT, his staff received training at the Radiation Emergency Assistance Center/Training Site (REAC/TS), Center for Radiological Nuclear Training (CTOS) and participated in conferences and drills in conjunction with the Radiation Injury Treatment Network (RITN). He also described some the exercises which took place and identified other local, regional, state and federal partners. In conclusion, he highlighted how these experiences made the Department an asset in radiation monitoring at major undertakings such as the West Virginia University home football games and aiding with the remediation of a radioactive isotope at private residence.

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. Steve Johnson, RAP Regional Program Manager. Although Mr. Johnson represented region 2, he provided a synopsis of RAP responses which occurred in both regions 2 and 3 during the year. Some of the incidents involved a crane which had been used in a contaminated area, copper wire at a scrap metal facility and containers of radiological material at a private residence. The crane and scrap metal incidents did not yield the detection of contamination. The isotopes discovered at the residence resulted with less than minimum detectable activity. The isotopes were confirmed as a Cs-137 check source, U-238 and Am-241 possibly from a smoke detector. Mr. Johnson also displayed slides with a list of past, present and future activities supported by the RAP Teams such as major sporting events, conventions, exercises and other special occurrences.

The Federal Railroad Administration's Hazardous Materials Specialist, Jeffrey Moore, presented regarding issues pertaining to the rail transportation of spent nuclear fuel to a privately owned Consolidated Interim Storage Facility (CISF). He showed images of the Independent Spent Fuel Storage Installations around the nation and the locations of the proposed CISFs for which two companies have filed applications with the NRC. He proceeded to give an overview of what a shipment conducted by a private company would entail. He talked about outfitted rail cars, railroad ownership, track class and other rail industry specifications. Lastly, he talked about a tabletop exercise simulating a private shipment which was conducted by the Council of State Governments' Midwestern Radioactive Materials Transportation Committee. The most important aspect of the tabletop was the discussion which yielded several questions concerning stopping trains for inspections, funding for emergency response, equipment standards and security issues.

The second day of the meeting began with an administrative business session led by Mr. Christopher Wells. Next, he mentioned Ms. Leigh Parson (SSEB Grants and Accounting Manager) was in attendance and available for one-on-one

consultation to provide state grant recipients with details regarding the current financial standing of work plans and budgets in support of transuranic waste shipments to the Waste Isolation Pilot Plan (WIPP). Finally, 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 speakers of the gathering were Lieutenant Brent Moore, Georgia Department of Public Safety, and Ms. Hongrui Cai of Radiation Solutions Incorporated (RSI). They choose to jointly collaborate on the presentation because Lieutenant Moore formed a Nuclear Radiological Detection (NRAD) team and Ms. Cai's company provided the equipment which aided them in carrying out their mission. The NRAD team was created in 2018 and consist of 16 members equipped with mobile, backpack and other forms of detection systems. Their educational regimen included MERRTT, CTOS, Commercial Vehicle Safety Alliance Level VI and various other forms of training. Upon completion of the program, the NRAD team is prepared to patrol major events much in the same manner as DOE's RAP Team. He also talked about two exercises held during the year which allowed the NRAD team to test their proficiency of knowledge and technology. Before concluding, Lieutenant Moore showed several photographs of the exercises and the NRAD equipment inventory. Next, Ms. Cai spoke about the history of Radiation Solutions which is a Canadian company focused on designing and manufacturing low level gamma ray detection instrumentation. She noted the company's best-selling products include the mobile detection systems and perimeter monitoring systems. Ms. Cai informed the group RSI customers include many US federal agencies, state and local organizations as well as international clients. The remaining portion of her presentation included videos, graphics and charts of the wide array of multi-modal RSI equipment and systems technology.

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 May 19-21, 2020, during the Annual Meeting in Scottsdale, Arizona. After adjourning the meeting, the group departed for lunch and a tour of the Turkey Point Nuclear Generating Station.

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