

Midwestern Radioactive Materials Transportation Committee (MRMTC) Fall 2020 Meeting Summary

Virtual Meeting via Zoom
November 10 and 12, 2020

AGENDA ITEMS

1. Welcome and Introductions (November 10)

- a. Tiffany Drake (Missouri) called the meeting to order, welcomed the attendees, and opened the meeting with a Tribal Nation and Land Acknowledgement of Missouri's indigenous communities such as the Osage, Chickasaw, Otoe, Illini, Ogapah, and Ioway. The MRMTC hopes to make this a tradition for all committee meetings to acknowledge the land's past, present, and future and to make an open and inviting space for our Native American colleagues. This acknowledgement was prepared by Tansey Moore (National Conference of State Legislatures (NCSL)) at the request of the MRMTC Regional Tribal Engagement (RTE) Work Group.

2. Report from the Co-Chair

- a. Ms. Drake acknowledged that former MRMTC Co-Chair Kaci Studer (Indiana) recently left her position with the State of Indiana to accept a contractor position with the Mobile Detection Deployment Program of the U.S. Department of Homeland Security's (DHS) Countering Weapons of Mass Destruction Office, making Ms. Drake the Senior Co-Chair for both this meeting and 2021's MRMTC Meetings. Ms. Drake noted that COVID-19 had canceled all in-person meetings in 2020, but that the MRMTC had remained productive. The committee reviewed and commented on the Department of Energy's (DOE) draft *Railcar Safety Inspection Protocol*, a document that exists in large part because of the Midwest advocating for its creation to DOE, the Federal Railroad Administration (FRA), the Blue Ribbon Commission on America's Nuclear Future, and in testimony to Congress. Ms. Drake also discussed the success of the MRMTC RTE Work Group and how the Tribal Radioactive Materials Transportation Committee (TRMTC) invited Ms. Janairo and Mitch Arvidson (CSG Midwest) to discuss its creation and activity during their fall meeting. Finally, Ms. Drake mentioned that Missouri and some other states were working on comments for the revision of DOE Order 460.2B, "Departmental Materials Transportation and Packaging Management," and encouraged people to get those comments to Ms. Janairo as soon as possible.

3. Project Update

- a. Mr. Arvidson provided an update on the Midwestern Radioactive Materials Transportation Project. He informed attendees that the project is funded by cooperative agreements with three DOE offices. The Carlsbad Field Office (CBFO) provides funding for activities related to the shipment of transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico. The Office of Nuclear Energy (NE) provides funding for activities related to future shipments of commercial spent nuclear fuel (SNF) to facilities for storage and/or disposal. Finally, the Office of Packaging and Transportation (OPT), which is within the Office of Environmental Management (EM), provides funding to facilitate state engagement with all other DOE transport of radioactive materials and waste, as well as to

support activities related to NTSF meetings and webinars. After briefly having every seat on the committee filled around the time of the Spring Meeting, departures by Ms. Studer, Dale Patrick (North Dakota), and Adam Davenport (Wisconsin) have left three vacancies that will be filled in early 2021, along with legislative appointments. Mr. Arvidson reported on the RTE Work Group's virtual "Regional Tribal Briefing," held on June 2, 2020. The briefing, led by Scott Doig (Bureau of Indian Affairs (BIA)), Heather Westra (Prairie Island Indian Community (PIIC)), and Phil Meraz (Iowa), provided background information on Midwestern Tribes and their government-to-government relations with both state and federal governments and gave guidance for effective coordination.

Mr. Arvidson then pivoted to discuss how the Midwest is active on several NTSF-related groups. Michael Snee (Ohio) and Ms. Studer were the Midwest's state representatives on the NTSF Planning Committee (PC) and Mr. Arvidson told attendees that the MRMTC was actively recruiting for Ms. Studer's replacement. After COVID-19 cancelled the 2020 Annual Meeting of the NTSF, the PC put on five virtual meetings/webinars in May and June. Another NTSF group, the Spent Nuclear Fuel (SNF) Rail/Routing Issues Ad Hoc Working Group (R/R AHWG) was reviewing the FRA's revised Safety Compliance Oversight Plan (SCOP) and providing comments on that, as well as the proposed railcar safety inspection protocol mentioned before. For the R/R AHWG's November 2 meeting, Kelly Horn (Illinois) and Jeff Moore (FRA) gave a lessons-learned report on the low-level waste railcar fire incident that occurred in June in Bedford Park, Illinois. Mr. Arvidson then told attendees that CSG Midwest had hosted all five 2020 NTSF Virtual Meetings between May 19 and June 29. Furthermore, on October 21, CSG Midwest hosted the "DOE Order 460.2B Revision" webinar. Recordings of this, and all other NTSF webinars are available on the NTSF wiki site.

On August 6, DOE-NE's Transportation Core Group held a virtual meeting covering the President's FY21 budget request and House appropriations language, the Atlas railcar development, nuclear power plant site evaluations, the START tool, and the status of Nuclear Waste Policy Act (NWPA) Section 180(c) work. Mr. Arvidson stated that another virtual Transportation Core Group meeting would be held in December for another update on DOE projects and to set the stage for how a new presidential administration and Congress could affect the department.

Shifting gears to actual transportation planning, Mr. Arvidson informed attendees that CBFO's most recent semi-annual notification to states showed that no TRU waste shipments would depart Argonne National Laboratory (ANL) between August 2020 and July 2021 because ANL exhausted their inventory of shielded container assemblies and must wait for the manufacturer to provide more.

The final piece of Mr. Arvidson's project update covered information and communication topics. First, committee members will soon be asked to update their state-specific information in the [*Planning Guide for Shipments of Radioactive Material through the Midwestern States*](#) and a work group will be formed to complete a more thorough review ahead of the 2021 Spring Meeting, tentatively scheduled for June 15, 2021, in Dallas, Texas. Then, Mr. Arvidson said that CSG Midwest had finished writing new and updated articles for the 10th anniversary update to the 2010 document "Transportation Institutional Issues Involving the U.S. Department of Energy's Civilian Radioactive Waste Management Program." The new version, "The Post-Yucca Mountain Years," adds several sections that

cover relevant topics since 2010, including the BRC, consent-based siting (CBS), tribal engagement, shutdown site visits, and industry interest in storage and transportation. The document was in the design phase with CSG's national office and would be made available to all interested parties before the end of 2020. Finally, CSG Midwest is in the process of converting their entire website to a WordPress platform. The MRMTC webpages will also be converted in this process. The new platform will be mobile-friendly, easier to update, and include a password-protected area for MRMTC members only.

4. Committee Reports

- a. NTSF Planning Committee: Mr. Snee reported that planning was ongoing for the 2021 Annual Meeting of the NTSF to be held in June 2021. The 2021 meeting was to take place in Charleston, South Carolina, but due to hotel issues the meeting has been moved to Dallas, Texas. The agenda for the meeting, including breakout sessions, was being finalized and a tour, which would most likely be rail related, was being researched. Finally, Mr. Snee said that, in the event that an in-person meeting could not be held, a number of the agenda items would be moved to webinars.
- b. Regional Tribal Engagement Work Group: Greg Gothard (Michigan) reported that the work group roster has been formalized and Michael Bradley of the Pokagon Band of Potawatomi has joined the group. The COVID-19 pandemic has forced most, if not all, work group members to work from home, making it difficult to attend relevant meetings and engage with tribal communities in person. Mr. Meraz has been speaking with the Sac & Fox Tribe of Iowa and encouraging them to get involved with TRMTC. Mr. Gothard discussed the purpose of and future plans for the Tribal Land Nation and Acknowledgement. Finally, the work group will develop a guidance document by the end of 2021 for how Tribes can begin to receive Advance Notification of Irradiated Reactor Fuel Shipments from the Nuclear Regulatory Commission (NRC).

5. Regional Roundtable

- a. Indiana: Sarah Chaney gave Indiana's report. She started out noting how important Ms. Studer was to all of Indiana's radiation control programs. Indiana is still working on hiring a radiation control programs' director but until then, Ms. Chaney will be sitting in on MRMTC-related meetings that Ms. Studer would have previously attended.
- b. Iowa: Angela Leek gave Iowa's report. Many of Iowa's state employees were involved in COVID response currently, whether that's moving personal protective equipment (PPE) supplies, testing kits, collecting data, or attending meetings. However, Iowa has been able to fit in some radiation trainings with the Department of Transportation (DOT) and hopes to have more in the winter months. Ms. Leek and her Iowa Department of Public Health outfit is looking for more remote and/or virtual training opportunities. She also reported that Duane Arnold Energy Center entered into permanent shutdown status in August. Originally scheduled to do so in October, the shutdown date was moved up due to the August 10 derecho windstorm that knocked out the plant's cooling towers. All fuel was removed from the reactor core and placed in the SNF pool in the middle of October. That fuel will be gradually moved to SAFSTOR dry storage by the end of 2022 and they will be in a required emergency response mode until about June 2021, when the fuel will be cooled enough to not be an offsite concern. Christopher Boswell added that he and the Iowa DOT are working entirely on COVID-19 response.

- c. Wisconsin: Paul Schmidt gave Wisconsin's report. First, both the Wisconsin Department of Health Services and the Wisconsin Emergency Management (WEM) agency have gotten pulled into COVID-19 response. The nuclear power plants in Wisconsin requested, and were granted, exemptions for their required exercises which has significantly reduced the state's interactions with the plants in 2020, and probably 2021. Additionally, Mr. Schmidt reported that there has been a lot of turnover at WEM, which could explain why it has been a slow process finding a replacement on the MRMTC for Adam Davenport.
- d. Kansas: Swapan Saha gave Kansas' report. Like the other states, the Kansas Division of Emergency Management has mostly been dealing with COVID-19 and not had much activity in the way of radiological response training. Kansas has held one drill virtually and will probably do so again in the middle of 2021.
- e. Michigan: Mr. Gothard gave Michigan's report. His division at Michigan Environment, Great Lakes, and Energy moved two of its exercises to 2021 and has been conducting what they can virtually. The virtual drills and exercises have been so successful that they will probably continue to conduct some virtually going forward. Michigan has been developing its drone usage program for both the radiological emergency preparedness (REP) operations and the radioactive materials operations. In fact, Mr. Gothard recently received his drone pilot license. Drones won't be used in the case of a plume event but have already been used to assess damage from the dock collapse along the Detroit River. Michigan is looking to apply for grant money from DHS to expand its drone program. Finally, Mr. Gothard submitted a paper to the Conference of Radiation Control Program Directors (CRCPD) for their 2021 meeting on MRMTC's 2019 Transportation Tabletop Workshop in Indianapolis, Indiana.

Steve Maheras (Pacific Northwest National Laboratory (PNNL)) asked Mr. Gothard if he had permission to fly his drone(s) over Michigan's nuclear power plants. Mr. Gothard said that the NRC has published a memo saying that commercial drones do not pose a risk to nuclear power plants, but Ms. Leek said some plants have already established a no-fly zone over their territory and expects others to follow.

- f. Minnesota: Aaron Kallunki gave Minnesota's report. Minnesota's REP program received its 2020 exercise credit with the Federal Emergency Management Agency (FEMA) through its COVID-19 activity. For 2021, they are working on several virtual exercises. Minnesota has seen a big drop-off in highway route-controlled quantities (HRCQ) shipments and Mr. Kallunki partly attributes that to COVID-19. He also believes he's seen a decrease since he began asking shippers to quantify how going through Minnesota on a typical Michigan-to-Nebraska shipment was the safest, shortest route. Most would change their route when asked for this information, suggesting that the initial routes may have been intended to avoid states with higher fees like Iowa.
- g. Missouri: Ms. Drake gave Missouri's report. She commented that she was in contact with Mr. Gothard and Ms. Studer earlier this year and they had all noticed an HRCQ drop-off in their respective states. She expects that to pickup some when COVID-19 is less of a factor and as the northern Canadian route becomes less accessible during the winter months. Ms. Drake commended Mr. Kallunki for the approach he took and said she believes her state would prefer to do something similar as opposed to seeking legal repercussions for shippers seeking cheaper, longer routes. Missouri hasn't done any emergency response trainings due to COVID-19. Missouri commented on the transportation-related aspects of

NRC's draft environmental impact statement (EIS) for Interim Storage Partners' (ISP) proposed consolidated interim storage facility (CISF). Finally, the Naval Nuclear Propulsion Program (NNPP) exercise that is to be held in Moberly, Missouri, has been postponed even further out, but will hopefully take place before the end of Federal FY21.

- h. Nebraska: James Rashilla gave Nebraska's report. The state was able to conduct one very well-received DOE Modular Emergency Response Radiological Transportation Training (MERRTT) before the COVID-19 shutdown. Nebraska is working on getting more of those scheduled in 2021. Fort Calhoun Nuclear Station has continued its decommissioning efforts and the Nebraska Emergency Management Agency has been working with State Patrol on escorts of large volume, low-radioactivity shipments like a steam generator. A Cooper Nuclear Station ingestion pathway exercise was originally scheduled for the spring of 2020 but was rescheduled with NRC and FEMA approval for May 2021. Finally, Mr. Rashilla informed attendees that Julia Schmitt with the Nebraska Department of Health and Human Services will be retiring from state service after 30 years.
- i. Ohio: Mr. Snee delivered Ohio's report. Ohio's House Bill 6 authorized a \$1 billion bailout, paid by ratepayers, to Energy Harbor (formerly FirstEnergy) to keep its Davis-Besse and Perry nuclear power plants running along with two coal-powered plants, one of which is in Indiana. A federal investigation revealed that FirstEnergy paid former Ohio House Speaker Larry Householder and his associates \$61 million to pass the bill and defend it from a repeal effort. After then-Speaker Householder and four associates were arrested by Federal Bureau of Investigation (FBI) agents on July 21 for racketeering, bribery, and money laundering in relation to the passage of HB 6, both Ohio's legislative and executive branches pledged to repeal and replace HB 6. The legislature has not moved to schedule a vote on a repeal of HB 6, but the Ohio Attorney General has filed a lawsuit to prevent money from going to Energy Harbor and the cities of Columbus and Cincinnati have filed lawsuits to prevent money from being collected. On October 29, two of the five alleged co-conspirators pleaded guilty in U.S. District Court in Cincinnati to racketeering as part of a plea bargain in the scandal. They are looking at 20-year prison sentences. Then, on the evening of October 29, FirstEnergy announced it had fired CEO Chuck Jones and two senior vice presidents for violating company policies and its code of conduct. On November 9, FirstEnergy announced that they had fired their lead attorney and chief ethics officer.

In other Ohio news, routine radiation inspections have continued. In March, they stopped inspecting hospitals and granted them regulatory relief from certain regulations. In October, they reached out to hospitals and found that few needed to take advantage of the regulatory relief and some hospital requested that routine inspections resume. Mr. Snee has been teleworking since March 16 and was recently told that employees won't be going back to the office until at least the end of May 2021.

- j. South Dakota: Nicholas Emme delivered South Dakota's report. South Dakota has seen very few, sporadic radioactive material shipments since the last time the MRMTC met.
- k. PIIC: Ms. Westra gave PIIC's report. Ms. Westra gave a presentation on Tribal Advance Notifications at the Nuclear Energy Institute (NEI) Transportation Symposium for New Mexico. With Xcel Energy and the Nuclear Waste Strategy Coalition, Ms. Westra did a panel at the Reuters Nuclear Decommission & Used Fuel Strategy Conference. The Prairie

Island Nuclear Power Plant recently received approval from the NRC to amend and expand the site's independent spent fuel storage installation (ISFSI) from 48 to 64 casks.

6. U.S. Department of Energy Reports

- a. [Office of Nuclear Energy](#): Erica Bickford delivered the Office of Nuclear Energy report. The Office of Integrated Waste Management (IWM) is responsible for the eventual large-scale transportation and storage/disposal of SNF from nuclear power plants. At the time of the meeting, DOE was under a continuing resolution through December 11, which meant their funding and work priorities from FY20 would remain unchanged until a new appropriations bill was passed.

Dr. Bickford highlighted two recent IWM work products. First, the ["Spent Nuclear Fuel and Reprocessing Waste Inventory"](#) is an annual update on commercial and government SNF and high-level radioactive waste (HLW) inventories. Second, the "Nuclear Power Plant Infrastructure Evaluations for Removal of Spent Nuclear Fuel" was scheduled to be released before the end of 2020 and is the newest version of IWM's report on nuclear power plants' transportation infrastructure and includes information for Oyster Creek (New Jersey) and Pilgrim (Massachusetts).

Dr. Bickford also gave an update on the Atlas railcar, which is being developed to comply with the Association of American Railroads' (AAR) Standard S-2043. At the time of the meeting, testing was 70% complete. Some tests were not passed on the first try and adjustments were made accordingly, such as using stiffer suspension pads to adjust for warmer weather. While DOE was conducting tests on the Atlas and buffer railcars, the Navy was leading testing on the rail escort vehicle (REV). Single-car testing of these three elements are expected to be finished by March 2021. At that point, multi-car testing will take about two additional years to complete. In addition to the 12-axle Atlas railcar, DOE is also developing an 8-axle "Fortis" railcar which is awaiting design approval from AAR's Engineering and Equipment Committee. Dr. Bickford then gave an update on the Stakeholder Tool for Assessing Radioactive Transport (START), which is a web-based geographic information system used for evaluating routing options for the transport of SNF and HLW. IWM staff began migrating START to a cloud-based server to provide more flexibility, prompt fixes for bugs, and support for [virtual trainings like the one MRMTC](#) held over the summer.

IWM had planned to conduct four nuclear power plant site infrastructure evaluations in 2020 to Dresden and Morris in Illinois and Ginna and Nine-Mile Point in New York. While the Morris site visit was converted to a virtual format, the other three were cancelled. If travel is possible, Dresden will be visited in the spring of 2021.

Finally, Dr. Bickford gave an update on IWM's intergovernmental engagement with state regional groups (SRG) like MRMTC, TRMTC, Transportation Core Group, NTSF, and the Critical Infrastructure Partnership Advisory Council (CIPAC) working group on private SNF transport. Ms. Janairo asked if SRG and TRMTC staff can participate in the CIPAC working group as observers. Dr. Bickford believed there was a plan to invite said staff, but the invitation process is a little bureaucratic and may be coming at a later date.

- b. [EM Office of Packaging and Transportation](#): Julia Shenk and Ellen Edge delivered the OPT report. OPT's mission is to protect people and the environment by ensuring safe, compliant, and efficient packaging and transportation of materials. Recently, Betsy Connell

retired from her position as head of DOE-EM's Office of Regulatory and Policy Affairs, which houses OPT. Mark Gilbertson has taken over that position. Ms. Shenk reviewed OPT's key programs and responsibilities, which include compliance and safety, packaging certification program (PCP), stakeholder engagement and training, transportation planning and management tools, field support, and policy and regulatory support. She then showed some DOE low-level radioactive waste (LLW) disposal statistics to illustrate that EM's work has continued at similar levels to past years despite COVID-19 and many employees working from home. Then, Ms. Shenk discussed the draft DOE Order 460.2B, *Departmental Materials Transportation Management*, which was last revised 10 years ago and on which the SRGs and TRMTC had until November 12 to provide comments. The revision was intended to update and clarify existing requirements and to incorporate requirements from DOE Order 460.2A, which is being phased out. Speaking about safety assessment programs, Ms. Shenk said that the Motor Carrier Evaluation Program (MCEP) and the Transportation Compliance Assurance Program (TCAP) for DOE sites are developing virtual assessment schedules for FY21.

Ms. Edge then gave a Transportation Emergency Preparedness Program (TEPP) update. In FY20, 92 courses took place and 1,433 students were trained; nine courses had already taken place in FY21. Finally, Ms. Edge gave a quick update on the NTSF. Ms. Janairo asked Ms. Edge if the TEPP Training AHWG was currently active. Ms. Edge said that it would be reorganized for the next update to the training materials but that wouldn't be in the next year.

- c. Carlsbad Field Office: Bobby St. John gave the CBFO update. He reported that WIPP had received 175 shipments so far in calendar 2020. At the same point in 2019, that number was around 290 shipments. Idaho National Lab (INL) and Los Alamos National Lab (LANL) have been the primary origin sites. Lawrence Livermore National Lab (LLNL) also sent 18 shipments of contact-handled (CH) TRU waste to WIPP, the first from that site since 2005. The other site that shipped for the first time in a long time was Sandia National Lab with three shipments of remote-handled (RH) waste in shielded containers. Over 12,800 total shipments have occurred since WIPP opened in 1999 and FY21 has seen 33 shipments so far, lower than projected before COVID-19. The safety significant confinement ventilation system project has been paused as WIPP and DOE search for a new lead subcontractor. The new utility shaft was currently at 116 ft. in depth but further digging/blasting has been put on hold until another temporary authorization was issued by New Mexico. Mr. St. John doesn't foresee TRU waste shipments increasing significantly until COVID-19 subsides and both WIPP and the origin sites can get back to full operations.

7. **Wrap-Up for the Day**

- a. Ms. Drake thanked the DOE presenters for their work and for staying engaged with the Midwestern states. She asked Mr. Arvidson if there were any action items. He said the only action item was for attendees to come back for Day 2 on Thursday, November 12. Ms. Drake reminded attendees to send comments on the DOE Order 460.2B to Ms. Janairo who will collect, combine, and send to DOE. Ms. Janairo encouraged attendees to consider nominating themselves for MRMTC Co-Chair, NTSF PC member, and the *Planning Guide* Review Work Group, all of which would be assigned on Day 2.

8. **Welcome Back (November 12)**

- a. Ms. Drake welcomed attendees back, called the meeting to order, and invited Mr. Gothard to give a Tribal Land and Nation Acknowledgement of Michigan's indigenous communities like the Anishinaabeg, the Three Fires Confederacy of Ojibwe, Odawa, Potawatomi, Peoria, Meskwahki, Fox, and Sauk. Ms. Drake circled back and invited Illinois to provide a quick update since they were unable to do so on Day 1.
- b. Illinois: Rodney Pitchford gave Illinois' update. Some of Illinois' major activities in 2020 were the Bedford Park railcar fire and the Vermont Yankee shipment campaign preparations, both of which are covered below. Routine shipments and escorts have taken place, though at a reduced rate because of COVID-19 and the finished decommissioning of the Zion Nuclear Power Plant. So far in 2020, Illinois has inspected and escorted 23 HRCQ and three SNF shipments with zero violations. The state has also tracked 21 non-HRCQ Category 1 shipments and 193 LLW shipments.

9. **Vermont Yankee (VY) Shipment Presentation**

- a. Mike Valenzano (Orano) presented on his company's shipment campaign of decommissioned materials from the Vermont Yankee (VY) Nuclear Power Plant in Vermont. He informed attendees that, so far, two LLW shipments from the VY site to Waste Control Specialists (WCS) in Andrews County, Texas, have occurred without incident. This does not mean there weren't some challenges that the Orano team encountered. For example, there was a good deal of ambiguity in the U.S. DOT's hazardous materials regulations, weather and other network disruptions impacted the shipment schedule, and there were some significant railroad routing changes, including one bypassing Little Rock, Arkansas, that changed the entire route through that state. However, due in large part to Orano's early and frequent communication with affected states and Tribes, including many MRMTC members, there were no delays due to transportation events or incidents and WCS performed unloading activities without any difficulty. Shipments will resume in 2021 and include higher-level, Category 1 waste.

Mr. Horn added that Orano's outreach to states for the Category 2 shipments that have already taken place has been fantastic and allows states to use these shipments as test cases and practice for future SNF shipments. Mr. Horn's only concern was with the lengthy dwell time in an East St. Louis railyard and he will be reaching out to Orano and the Illinois Commerce Commission (ICC) to remedy that before Category 1 shipments take place.

Ms. Drake asked Mr. Valenzano to explain the tracking system a little deeper. He explained that it was Orano's own purchased hardware with two GPS transponders installed on the railcar. They work with a private company to provide the web-based software which can track temperature, create geofencing alerts, and create various reports. The tracking system is a little redundant of the railroads' tracking system, but that information is often not readily available. Ms. Drake asked if the VY shipments use dedicated trains or are just part of larger cargo trains. Mr. Valenzano said that their cargo is just part of a larger train. This is different from future SNF shipments, which will be dedicated trains. Mr. Gothard asked if there would be any issues if a state or jurisdiction chooses to escort a VY shipment. Mr. Valenzano said this will be encountered in late summer 2021 when the last VY shipment contains HRCQ material, which some states mandate is escorted. It was unclear how this would be done because rail carriers would not provide a REV railcar but perhaps squad cars could follow the rail-line as closely as possible or use drones.

10. Reports from Tribal and Regional Partners

- a. Tribal Radioactive Materials Transportation Committee: Ms. Westra gave TRMTC's update. TRMTC held a virtual meeting in September which highlighted the MRMTC RTE Work Group, discussed possible private SNF shipments, and considered the environmental impacts of the proposed private CISFs in New Mexico and Texas. The committee also provide an NRC information safeguards training for its members which is a prerequisite to receive advanced shipment notifications. Chip Cameron was hired by TRMTC to write a couple of technical papers, one of which will examine the similarities and differences between DOE SNF shipments and private-licensee SNF shipments. Finally, there will be a virtual TRMTC Meeting on January 21, 2021.
- b. Southern States Energy Board (SSEB): Christopher Wells gave the SSEB update. SSEB will be hosting a virtual meeting in the first week of December with a focus on how states and federal agencies are conducting trainings in the time of COVID-19. Mr. Wells will be leading a series of introductory calls to brief new members and their leadership. The majority of his time has been spent preparing for the 2021 Annual Meeting of the NTSF, which will be held in Dallas, Texas, in June 2021. Finally, Mr. Wells threatened to flip Missouri from the MRMTC to SSEB. [Editor's note: Not gonna happen, Chris!]
- c. Western Interstate Energy Board (WIEB)/Western Governors' Association (WGA): Melanie Snyder gave the WIEB/WGA update. The WIEB's High-Level Radioactive Waste Committee held a virtual meeting in October and had a presentation from Southern California Edison on their San Onofre SNF Storage Inspection and Repair Program. Also, at the meeting, Tammy Ottmer (Colorado) was elected Chair and Landry Austin (Idaho) was elected Vice Chair. Some new work planned for 2021 includes a survey of Western state's hazmat regulations and a survey of the updated, renegotiated agreements that Western states have with DOE and the Environmental Protection Agency (EPA) to process and remove waste from the various western national lab sites. Finally, WGA is working to transition management of the WIPP Transportation Technical Advisory Group (TAG) to WIEB. WGA's cooperative agreement with DOE to run the WIPP TAG ends next year.
- d. CSG Eastern Regional Conference: Veena Gubbi gave the CSG Eastern Regional Conference's Northeast High-Level Radioactive Waste Transportation Task Force update. The Northeast had the first session of its fall meeting on October 29 and the second session will take place sometime in December. They received a status update on the three Yankee plants, all three of which are now ISFSI sites only. During the October meeting, there was also a panel with representatives from New York, Pennsylvania, and the Seneca Nation that covered the successes and lessons learned from a series of recent shipments from Canada to the Savannah River Site (SRS). Finally, the Northeast will be hosting the 2022 Annual Meeting of the NTSF.

11. Briefing on the Bedford Park Railcar Fire

- a. Mr. Horn presented this briefing. At approximately 2:00 AM on June 4, 2020, a railcar carrying LLW caught fire in the clearing yard of the Belt Railway Co. of Chicago (BRC) located in Bedford Park, Illinois. The railcar, manifested as LSA-1, contained a total consignment of 4.3 millicuries of Co-60, Cs-134, Cs-137, U-234, U-235, and U-238, and was en-route from Alaron Nuclear Services in Wampum, Pennsylvania, to WCS in Texas for disposal. A large portion of the waste in the railcar was un-irradiated zirconium fuel

cladding which had contained fresh fuel at one point in time. The remaining portion of the load consisted of dry active waste and contaminated metals.

BRC staff noticed flames coming from the subject car shortly after it and a second railcar loaded with LLW were humped, and notified the Bedford Park Fire Department. (Railcar humping is the process of coupling railcars using a surface gradient differential, or hump, to allow the railcars to slam into each other at low speeds.) Initial attempts to extinguish the fire by the Bedford Park Fire Department were hindered because the railcar was located in an area of the yard that was not readily accessible to fire trucks. As a result, BRC response personnel used sand to cover the lid of the railcar in an attempt to prevent oxygen from entering the load.

Over the next 24 to 48 hours, the fire would continue to periodically flare up and proved difficult to mitigate. At one point, response personnel attempted to flood the railcar with liquid nitrogen in order to displace the oxygen within the load, but as with other efforts, this proved to be a temporary solution as the contents of the load would eventually start to smolder. BRC response contractors finally reverted to burying the railcar in sand as a means of smothering the fire.

As response actions were taking place, health physicists from Illinois Emergency Management Agency's (IEMA) Division of Nuclear Safety conducted dose rate surveys, contamination surveys, and conducted air monitoring in order to assess radiological impacts to responders, the general public, and the environment. Smears of railcars and other equipment in close proximity to the railcar fire or within the smoke plume did not identify removable contamination above regulatory limits and most were indistinguishable from background levels. Radiological data collected from the scene and source information were used by IEMA's Radiological Emergency Assessment Center personnel to complete a conservative dose assessment using the NRC's Radiological Assessment System for Consequence Analysis (RASCAL) code. The resultant worst-case public dose modeled was determined to be less than 1 millirem as close as 1/10th of a mile (528 feet) from the rail car. This distance was observed to be the nearest location to the railcar for which a member of the public could be located in an uncontrolled area.

As the event transitioned from the response phase to the recovery phase, IEMA granted Alaron reciprocity under their Pennsylvania radioactive materials license to conduct activities associated with the railcar fire operations. Operations included remediation, waste handling, and associated packaging and transportation. In parallel to these actions, the ICC and the U.S. DOT's FRA conducted regulatory reviews and investigated the cause of the fire. [Editor's note: At the time of this article's publishing, the cause of the fire is still unknown.] Alaron offloaded the contents of the railcar into intermodals and shipped the LLW, along with remediation waste, to Toxco Inc., located in Oak Ridge, Tennessee, for processing and disposal. In all, 42 intermodals were loaded and shipped to Toxco. Alaron also shipped approximately 287 cubic feet of contaminated water generated during fire suppression back to their Pennsylvania facility for processing. The railcar was repaired onsite and shipped back to Alaron's Pennsylvania facility for decontamination.

Mr. Horn then discussed some lessons learned from the incident. For example, Illinois identified new capabilities like RASCAL application, response issues, and regulatory shortfalls. Additionally, pre-existing relationships are important and can ease interaction with the rail industry, other states, and federal partners. Rick Moore (Eureka County) asked

Mr. Horn if he had any difficulty accessing the railyard given the safety training that is often required before entering a switchyard. Mr. Horn said that Illinois' response staff is all up to the OSHA standards needed to enter and BRC allowed them onsite after a quick training. Ms. Westra asked what the public response was like in Illinois. Mr. Horn said there was very little public interest generated from the incident aside from a few elected officials.

12. Committee Business

- a. Election of Co-Chair: Ms. Drake asked for nominations for the position of MRMTC Junior Co-Chair. Mr. Gothard nominated Ms. Leek and Mr. Schmidt. Mr. Schmidt declined because he will be retiring in the near future. Ms. Leek declined because she will become the CRCPD Chair in May and could not do both. Mr. Gothard then nominated Mr. Snee. Mr. Snee accepted the nomination. Ms. Drake asked for a motion to elect. Mr. Horn made that motion and Mr. Rashilla seconded. A voice vote followed and unanimously elected Mr. Snee to serve as the MRMTC's Co-Chair for 2021-2022.
- b. 2021 Activities and Events: Ms. Janairo started by saying that the beginning of 2021 will most likely look similar to 2020, but that CSG Midwest has plenty of funding for travel when that starts again and for any training and or virtual registration fees that may come up in the meantime. The next MRMTC meeting will be on June 15, 2021, in Dallas, Texas. If the in-person NTSF meeting at the same time is cancelled, the MRMTC Spring 2021 Meeting will be held virtually. The MRMTC or the NTSF will plan to have a short newcomers orientation session before that meeting. Ms. Janairo suggested having a session walking through the finalized DOE Order 460.2B. The Dresden site visit is tentatively scheduled for the Spring. The Waste Management Symposium will be held March 7 - 11 and Ms. Janairo encouraged attendees to contact her if they would like to have their registration fee covered. Finally, the *Planning Guide* will be updated in 2021 and the committee should be able to review and approve the new language at the June 15 meeting.
- c. Committee Work Group Assignments: Ms. Drake asked for one volunteer to join Mr. Snee on the NTSF PC. Mr. Rashilla volunteered and was confirmed. Ms. Drake then asked for at least three volunteers for the *Planning Guide* Review Work Group. Mr. Arvidson explained the process this group has taken in the past. Mr. Schmidt, Mr. Gothard, Mr. Pitchford, and Mr. Saha volunteered and were confirmed. Finally, Mr. Kallunki will be joining the MRMTC RTE Work Group.

13. Wrap-Up

- a. Mr. Arvidson covered the action items which can be found below. Ms. Drake closed the meeting by thanking attendees for their participation and questions and the presenters for their reports.

14. Adjourn

ATTENDEES

Committee Members:

Chris Boswell, Iowa
Tiffany Drake, Missouri (co-chair)
Nicholas Emme, South Dakota
Greg Gothard, Michigan
Kelly Horn, Illinois
Aaron Kallunki, Minnesota
Angela Leek, Iowa
Rodney Pitchford, Illinois
James Rashilla, Nebraska
Swapan Saha, Kansas
Paul Schmidt, Wisconsin
Michael Snee, Ohio

Other State Attendees:

Landry Austin, Idaho
Sarah Chaney, Indiana
Tom Forbes, Ohio
Veena Gubbi, New Jersey
Jerry Humphreys, New Jersey
Earl Imler, Nebraska
Mark Reese, Oregon
Tad Rumas, Ohio

Tribal Representatives:

Richard Arnold, Pahrump Paiute
Tribe/CGTO - TRMTC/NETWG
Anthony Memmo, Seneca Nation
Heather Westra, Prairie Island Indian
Community
Jon Wheaton, Nez Perce Tribe

Speakers:

Erica Bickford, DOE-NE
Ellen Edge, U.S. Department of Energy
Julia Shenk, U.S. Department of Energy
Bobby St. John, Waste Isolation Pilot
Plant
Mike Valenzano, Orano

Other Attendees:

Mitch Arvidson, CSG Midwest
Matt Feldman, Oak Ridge National
Laboratory
Eric Howes, Maine Yankee Atomic Power
Company
Lisa Janairo, CSG Midwest
Jay Jones, U.S. Department of Energy
Jason Kephart, Ivy Tech Community
College
Brennain Lloyd, Northwatch
Betsy Madru, Deep Isolation
Steve Maheras, PNNL
Katrina McMurrian, Nuclear Waste
Strategy Coalition
Tansey Moore, National Conference of
State Legislatures (NCSL)
Rick Moore, Eureka County
Cheryl Olson, Dairyland Power Coop
Lauren Rodman, PNNL
Carlisle Smith, Commercial Vehicle
Safety Alliance
Melanie Snyder, Western Interstate
Energy Board
Kim Tyrrell, NCSL
Christopher Wells, Southern States
Energy Board

ACTION ITEMS

States:

- Mr. Snee will serve as Co-Chair of the MRMTC in 2020-2022
- Mr. Rashilla will serve on the National Transportation Stakeholders Forum (NTSF) Planning Committee (PC)
- Mr. Kallunki will serve on the MRMTC Regional Tribal Engagement (RTE) Work Group
- Mr. Gothard, Mr. Pitchford, Mr. Saha, and Mr. Schmidt will serve on the *Planning Guide for Shipments of Radioactive Material through the Midwestern States* Review Work Group
- All will mark their calendars for the MRMTC Spring Meeting: June 15 in Dallas, Texas
- All will mark their calendars for the 2021 Annual Meeting of the NTSF: June 14 - 17 in Dallas, Texas

Staff:

- Ms. Janairo and Mr. Arvidson will send a copy of the finalized *Transportation Institutional Issues Involving the U.S. Department of Energy's Civilian Radioactive Waste Management Program: The Post Yucca Mountain Years* to Rick Moore and any other interested individuals
- Ms. Janairo will inform Ms. Edge that Mr. Rashilla will be the MRMTC's newest representative on the NTSF PC
- Ms. Janairo will pass along Mr. Snee's contact information as the new MRMTC Co-Chair to DOE-NE for adding to the Transportation Core Group roster
- Mr. Arvidson will organize a new *Planning Guide* Review Work Group in 2021 with Mr. Gothard, Mr. Pitchford, Mr. Saha, and Mr. Schmidt
- Ms. Janairo and Mr. Arvidson will organize a Newcomer's Orientation for MRMTC members at the Spring Meeting
- Ms. Janairo and Mr. Arvidson will consider organizing a second tabletop exercise to follow up on the one held in Indianapolis, Indiana, in November 2019
- Mr. Arvidson will create a meeting summary and post it on the MRMTC webpage

Observers/Others:

- Ms. Snyder will share the Western Interstate Energy Board (WIEB) High-Level Radioactive Waste (HLRW) Committee's comments on the draft environmental impact statements (EIS) for Holtec's and Interim Storage Partner's (ISP) proposed consolidated interim storage facilities (CISF) with Ms. Drake

Prepared by Mitch Arvidson, December 17, 2020