



Nevada Site Specific Advisory Board (NSSAB)

Full Board Meeting Las Vegas, Nevada

4:00 p.m. – March 16, 2022

Members Present:

Gail Alexander, Frank Bonesteel (Chair), William DeWitt, William Dolan, Karen Eastman, Gary Elgort, Charles Fullen, Mark Hilton, Dan Peterson, Janice Six, Richard Stephans, Favil West, Dina Williamson-Erdag

Members Absent:

Anthony Graham (Vice-Chair), Bruce Jabbour, Ronald Korner

Liaisons Present:

Chris Andres (State of Nevada Division of Environmental Protection [NDEP]), Richard Arnold (Consolidated Group of Tribes and Organizations [CGTO]), Richard Friese (National Park Service [NPS]), Phil Klevorick (Clark County), John Klenke (Nye County Natural Resources and Federal Facilities Office [NRFFO]), Patrick Lazenby (Nye County Emergency Management [NCEM])

Liaisons Absent:

Leo Blundo (Nye County Commission), Jared Brackenbury (Lincoln County Commission), Delon Winsor (Esmeralda County Commission)

Department of Energy (DOE):

Environmental Management (EM) Nevada Program:

Robert Boehlecke (Deputy Designated Federal Officer [DDFO]), Tiffany Gamero, Catherine Hampton, Bill Wilborn (alternate DDFO), Andrew Worker

National Nuclear Security Administration/Nevada Field Office (NNSA/NFO):

Dr. David Bowman, Kathryn Gladden

Government Contractors:

Navarro:

Kevin Knapp, Patty Neese, Ari Rosenberg, Jesse Sleezer, Lee Stevens, Barbara Ulmer

Mission Support and Test Services:

Reed Poderis

Public and Media:

Joycelyn Austin-Mabe, Kelsey Shank (theEdge)

Open Meeting/Chair's Opening Remarks

Chair Frank Bonesteel welcomed and thanked everyone for attending the NSSAB meeting. Member William Dolan moved to approve the draft agenda as presented. The motion was seconded and passed unanimously.

Public Comment

There was no public comment.

Liaison Updates

Clark County (Phil Klevorick)

Liaison Phil Klevorick reported that he attended the Waste Management Symposia 2022 (WMS) in Phoenix, AZ last week with approximately 2,300 other attendees. He participated in a panel session for the Energy Communities Alliance (ECA) on *Consent-Based Siting of Nuclear Waste Facilities*. In April 2022, Liaison Klevorick will attend an ECA meeting that will be held in New Mexico, including a site tour of the Waste Isolation Pilot Plant (WIPP).

CGTO (Richard Arnold)

Liaison Richard Arnold noted that he also attended the WMS and hosted a session on the *Tribal Revegetation of Low-Level Waste (LLW) Radioactive Waste Disposal Site*, along with the scientists involved with the Tribal Revegetation Project (TRP) conducted at the Area 5 Radioactive Waste Management Complex (RWMC). The session provided an overview and cultural insights with traditional ecological knowledge integrated with western scientific methods. During the session, TRP results were shared that there has been a seventy percent success rate for revegetation on the test plots. The TRP is an example of a successful collaboration between the Tribes, EM Nevada Program, DOE Headquarters (HQ), and NDEP. He attended another session on the *Indigenous Perspectives on Risk Assessment* that shared cultural and Tribal perspectives and emphasized the importance and uniqueness of integrating Tribal actions and beliefs into the process. There were many exhibitors at the WMS, including the EM Nevada Program and the Office of Legacy Management (LM), that hosted booths that share the EM mission story.

Liaison Arnold commented that the Tribal Planning Committee is reviewing its activities in preparation for the Tribal Update Meeting that will be held August 12-14, 2022. This meeting provides an opportunity for the Tribes of the CGTO to interface with NNSA/NFO, with an EM Nevada Program presence, to share information and insights, including an update on the TRP. On June 6-9, 2022, in Philadelphia, PA, Liaison Arnold concluded that he will be attending the National Transportation Stakeholders Forum that focuses on the transportation of radioactive shipments across the DOE Complex.

NCEM (Patrick Lazenby)

Liaison Patrick Lazenby had nothing new to report.

NRFFO (John Klenke)

Liaison John Klenke stated that accommodations have been made by the EM Nevada Program for his office to attend the upcoming Pahute Mesa External Peer Review.

NDEP (Christine Andres)

Liaison Christine Andres noted that she also attended WMS and it was good to be back in-person this year. She announced that she just returned from a visit to the Idaho National Laboratory to ask questions and receive invaluable information on a waste stream that was profiled to be disposed at the NNSS. Liaison Andres noted that she will be attending the spring meetings of the Federal Facilities Task Force at the end of April 2022 in New Mexico and the State and Tribal Governments Working Group tentatively scheduled for the beginning of May 2022 in St. Louis, MO.

NPS (Richard Friese)

Liaison Richard Friese had nothing new to report.

NNSA/NFO Update (Kathryn Gladden, NNSA/NFO)

Ms. Kathryn Gladden, NNSA/NFO Program Liaison for EM, reported that she was not able to attend WMS, although she participated virtually during a concurrent meeting of the Waste Coordination Leadership Group (WCLG) with representatives from the State of Nevada, DOE and NNSA HQ, and the EM Nevada Program. In collaboration with NDEP, MSTS, Navarro, and the EM Nevada Program, NNSA/NFO is developing an Appendix 7 for the Federal Facility Agreement and Consent Order (FFACO) to address the long-term stewardship of NNSS closed sites. Upon the closure of the EM Nevada Program mission, it is anticipated that the responsibility for long-term stewardship will be transferred to the NNSA/NFO, the NNSS landlord. Ms. Gladden concluded that the update of the NNSS Waste Acceptance Criteria (WAC) has completed final review by the NNSA/NFO and MSTS and will be submitted to Dr. David Bowman, NNSA/NFO Manager, for his signature. This is a significant milestone and accomplishment resulting from a collaboration between NNSA/NFO and the EM Nevada Program. Dr. Bowman added that the mask mandate for NNSS personnel has recently been lifted.

U.S. DOE Update (Robert Boehlecke, DOE)

DDFO Robert Boehlecke provided the NSSAB with an update on the current COVID posture. On March 14, 2022, the Department completed its reentry process following the period of adjusted operations driven by the COVID-19 pandemic. All federal and contractor employees are eligible to return to the workplace across the DOE Complex; however, the Department will continue to promote a flexible, hybrid workforce with partial telework or remote schedules available for many employees.

DDFO Boehlecke continued that last week the Biden Administration's Safer Federal Workforce Task Force (SFWTF) issued new guidance for Federal agencies on mask-wearing and screening testing requirements in Federal workplaces. The new guidance is tied to Centers for Disease Control and Prevention (CDC) county-level COVID data. Based on this data, it is currently optional for staff and visitors to wear a mask while inside EM Nevada Program offices at the Molasky Corporate Center, as well as at the NNSS. The county-level data that underpins the SFWTF guidance is subject to change, so the Program will continue to monitor CDC reporting closely. DDFO Boehlecke thanked the dedicated federal and contractor professionals who worked diligently over the past two years to advance the EM mission in Nevada in unprecedented and unpredictable circumstances.

DDFO Boehlecke reported on a Program visit this week from Nicole Nelson-Jean, Associate Principal Deputy Assistant Secretary for Field Operations for the Office of EM (EM-3). The visit included the opportunity to tour the National Atomic Testing Museum (NATM) with discussion on an exciting project in which the Department and the NATM are partnering to develop a new EM cleanup-focused exhibit, which is scheduled to be unveiled this year. EM-3 received briefings on EM Nevada's overall mission at the NNSS and on contractor quality assurance programs. Discussions also included near-term key decisions and opportunities, including the upcoming demolition and closure work at the Engine Maintenance, Assembly, and Disassembly (EMAD) and Test Cell C facilities. The visit ended with a sit-down with Dr. Bowman to discuss cooperation and coordination at the NNSS between NNSA/NFO and the Office of EM. EM-3 was also scheduled to participate in a NNSS field visit but had to cancel due to travel reasons.

In early 2022, DDFO Boehlecke noted that Navarro Program Manager Dave Taylor retired from his position with over 16 years of service on the Environmental Program Services contract in Nevada. In February 2022, Navarro appointed Stephen Browning as his successor. Mr. Browning has experience with DOE, having previously served as Program Manager for Navarro's Office of LM Support Contract, a position he held from 2018 to 2021. In addition, he brings over 30 years of high-level federal project management, including more than a decade of service with the U.S. Army Corps of Engineers. During his time with the Army Corps, Mr. Browning managed some significant projects, including disaster management in the immediate aftermath of Hurricane Katrina and the reconstruction and restoration of Iraqi public infrastructure during the war in Iraq. Mr. Browning was unable to join the meeting due to a conflict, but he plans to attend a future meeting to introduce himself.

As part of the Department's continued commitment to proactive, transparent communications with stakeholders, DDFO Boehlecke reported on an upcoming series of shipments of an approved waste that will occur in the next few months. The waste consists of five Abrams M-1 Battle Tanks that no longer have a mission need for the U.S. Department of Defense. The tanks contain solid depleted uranium in various forms. As is the case for all wastes disposed at NNSS, the profile for this waste stream was reviewed by the Waste Acceptance Review Panel and approved in January 2022. Originating from Sierra Army Depot in Herlong, CA, it is anticipated that the tanks will be transported in five shipments in the May to June 2022 timeframe. The shipments will require overweight/oversize permits, with no placards and no tarps; therefore, the visibility of the tanks could draw possible public interest. Upon arrival at the NNSS, the tanks will be safely offloaded for secure disposal.

DDFO Boehlecke followed-up with topics reported during liaisons and NNSA/NFO updates. First, Ms. Gladden mentioned the revision to the NNSSWAC that is very close to issuance, and he added that the NSSAB will be updated at a future meeting. He also attended the WMS and participated in several meetings during the conference. One of these meetings was with the Portsmouth/Paducah Program Office, an NNSS generator, to discuss a timeline for a waste stream and future decisions for one of the following disposal options: onsite disposal facility, the NNSS, or a commercial facility. DDFO Boehlecke also touched on the WCLG meeting that is held semi-annually to discuss ongoing and upcoming activities and any areas of concern. Lastly, DDFO Boehlecke noted that Todd Shraeder, DOE Principal Deputy Assistant Secretary for the Office of EM (EM-2), has taken a position with the Office of Clean Energy Demonstrations that will be focused on clean energy initiatives. EM-2 will be leaving in the April 2022 timeframe and Candace Robertson has been named acting until the position is filled permanently. Ms. Robertson has spent time working in Nevada and has held several positions in EM and DOE.

Mr. Jesse Sleezer, Navarro Strategic Communications Manager, provided additional information on the EM cleanup-focused exhibit at the NATM. Last fiscal year, the NSSAB recommended that the EM Nevada Program establish dialogue with the NATM to expand EM information in the museum. During the same timeframe, EM-2 appeared as part of a NATM Distinguished Lecture Series and presented on the history, cleanup mission, and accomplishments of the EM Program across the DOE Complex. He fielded an audience question about the possibility of a partnership with EM and the NATM regarding expanding EM information exhibited at the museum. This opened the opportunity for the EM Nevada Program to partner with the NATM to develop a concept for a new exhibit that would tell the story of EM across the country, starting with an explanation of the standup of the Office of EM and why the Program came to exist.

Mr. Sleezer continued that the exhibit would include accomplishments by key sites that have reached closure across the country, along with EM history in Nevada and the cleanup that remains to be completed at the NNS. The exhibit would also include the EM's commitment to public and stakeholder outreach and how the community is involved with cleanup decisions, including the partnerships with the EM advisory boards, the Tribes, and other key stakeholders. Also under consideration for the new exhibit is an interactive educational component for youth organizations. There has been progress on the new EM exhibit, namely with the identification of potential artifacts from various EM sites and work on the narrative content for the exhibit. The NSSAB will be kept apprised of the progress and future announcement of the exhibit opening.

Other NSSAB Business (Frank Bonesteel, Chair)

Round Robin Development:

On April 20 - 21, 2022, Chair Bonesteel reported that he and Vice-Chair Anthony Graham will be representing the NSSAB during the EM Site-Specific Advisory Board (SSAB) National Chairs Meeting via virtual format, along with the leadership from the other seven local advisory boards across the nation. (**UPDATE:** EM SSAB announced on 3/25/2022 that a hybrid-format meeting will be held May 3-5, 2022).

During the EM SSAB National Chairs Meeting, Chair Bonesteel highlighted that this is the Board's opportunity to present to EM HQ Senior Management a round robin that highlights key topics of importance to the NSSAB. In preparation, the NSSAB was provided with guidelines for the round robin in advance of the meeting to give some thought to potential topics and be prepared to discuss during the meeting.

Chair Bonesteel entertained discussion for the round robin with the following topics suggested by the Board:

Board Interests/Concerns:

- Some EM-chartered advisory boards will soon sunset when the EM programs they advise reach mission end-state. This includes the NSSAB. Has there been any discussion at the EM Headquarters level regarding the future of similarly situated boards and potential impacts on continued public involvement in those communities? (proposed by Member Mark Hilton)
- The safe transportation of offsite waste to the NNS is always a top priority for the NSSAB. As such, the NSSAB asks that the Department of Energy consider engaging the

Department of Transportation to discuss optimizing inbound route selection to further promote the safe transportation of waste to the NNSS. (proposed by Member Dina Williamson-Erdag)

Board Accomplishments:

- The NSSAB utilized new and innovative approaches in its recent new member recruitment campaign to support a diverse, inclusive, and well-balanced Board membership. (proposed by Member Richard Stephans)
- Use of hybrid meetings helped the NSSAB remain a strong and cohesive board through COVID. (proposed by Member Gary Elgort)

Member Chuck Fullen made a motion that the topics above be approved for the round robin presentation to EM HQ Senior Management during the EM SSAB National Chairs Meeting. The motion was seconded and passed unanimously. NSSAB members and liaisons were encouraged to observe the virtual meeting, and the NSSAB Office will provide the agenda and link to the livestream closer to the date. Chair Bonesteel thanked the members for their dedication, participation, and hard work in proposing round robin topics.

Update on WMS:

Chair Bonesteel provided an update on his WMS attendance that included an engaging PowerPoint presentation with photos he had taken during the conference.

Transportation of Low-Level Waste to the Nevada National Security Site (NNSS)-Educational Session (Andrew Worker, Waste Management Activity Lead, EM Nevada Program)

- **Outline**
 - Background of Waste Disposal
 - Types of Waste Disposed at the NNSS
 - Reasons for NNSS Selection
 - Federal Regulations and Requirements
 - Oversight Activities
 - Preparing Shipments
 - Waste Packaging
 - Hazard Communication
 - Carrier Selection
 - Transportation Waste to the NNSS
 - Transit Communications
 - Waste Receipt at NNSS
 - Emergency Preparedness
- **Background of Waste Disposal**
 - Cold War-related activities and nuclear research generated waste at sites across the country
 - DOE is responsible for consolidating and disposing waste generated by DOE clean-up activities and ongoing national security and science missions
 - DOE, under the authority of the Atomic Energy Act of 1954, as amended, self-regulates all material (including waste) under DOE control (management)

- DOE Orders provide requirements that must be followed, such as DOE Order 435.1
- U.S. Nuclear Regulatory Commission (NRC) does not regulate DOE's radioactive materials and/or waste
- **NNSS Waste Acceptance and Disposal**
 - Manage the safe acceptance and disposal of classified, low-level radioactive waste (LLW), mixed LLW (MLLW), classified non-radioactive, and classified non-radioactive hazardous waste at the NNSS
 - No high-level, transuranic, or commercially generated waste is accepted
 - On-site waste has been compliantly disposed at the NNSS since 1961
 - Complies with rigorous NNSS Waste Acceptance Criteria (WAC) and applicable federal and state regulations
 - Protects the safety of the public
- **Types of Waste Disposed at the NNSS**
 - LLW is radioactive waste not categorized as high-level waste, transuranic waste, spent nuclear fuel, or by-product material
 - Typical waste includes contaminated metal, debris, soils, equipment, personal protective clothing, tools, etc.
 - MLLW contains LLW and a hazardous component as defined by the U.S. Environmental Protection Agency (EPA) under the Resource Conservation and Recovery Act (RCRA)
 - Classified Waste requires protection for national security reasons (facility secured 24/7)
 - May contain a hazardous component
 - May be radioactive
- **Reasons for NNSS Selection**
 - Favorable disposal location due to site remoteness, security, and arid environment
 - No groundwater pathways
 - Deep groundwater (~700 feet – 1,600 feet) at Frenchman and Yucca Flat
 - Low precipitation (5-7 inches per year) at lower elevations
- **FY 2019 – 2022 NNSS Disposal Volumes**

Waste Type Volumes in ft ³	FY 2019 Actuals	FY 2020 Actuals	FY 2021 Actuals	FY 2022 Forecasted
Low-Level Waste (LLW)	952,220	410,255	470,781	728,431
Mixed LLW (MLLW)	123,363	40,846	60,556	143,868
Classified Non-Radioactive Waste (CNR)	2,511	7,539	7,381	12,275
Classified Non-Radioactive Waste (CNRH)	94	1,010	704	2,153
VOLUMES TOTAL BY FY	1,078,188	459,650	539,422	886,727

Total Shipments	1,365*	685*	676*	232 (Q1)*
# Trucks on Southern Routes	730	536	474	201 (Q1)
# Trucks on Northern Routes	619**	131	170	27 (Q1)

*Total does not include onsite shipments
**Includes 458 shipments from Tonopah Test Range

- **Generator Locations and General Transportation Routes**



- **Federal Regulations (applies to DOE, its contractors, and commercial entities)**
 - 10 Code of Federal Regulations (CFR), Energy
 - Packaging of Type B and Fissile
 - 40 CFR, Protection of Environment
 - Documentation
 - Hazard Communication
 - 49 CFR, Transportation:
 - Identification and Characterization of HazMat
 - HazMat Training
 - Packaging
 - Documentation
 - Security
 - Emergency Response Information
 - Hazard Communication
 - Motor Carrier/Driver
- **DOE Requirements**
 - DOE Orders (O) and Manual (M)
 - DOE O 460.2A, Departmental Materials Transportation and Packaging Management, which requires a transportation logistics program that includes carrier evaluations
 - DOE O 435.1, Radioactive Waste Management and associated manual (DOE M 435.1-1)
 - NNSSWAC
 - Section 6, Waste Transportation and Receipt Information
- **Oversight Activities**
 - The following organizations perform oversight activities on generators and/or transporters:
 - U.S. Department of Transportation
 - U.S. Environmental Protection Agency
 - U.S. Department of Energy

- Radioactive Waste Acceptance Program
- NNSS Radioactive Waste Management Complex
- Waste generators perform due diligence on transporters
- **Preparing Shipments**
 - U.S. Department of Transportation (DOT) Hazardous Materials Regulations, apply to both shippers and motor carriers
 - Hazardous materials shipping rules for Class 7 materials (and for all other hazardous materials) acknowledge package integrity as a fundamental control
 - Shipper must consider “activity,” dose rate, and contamination
 - Not everything that is radioactive is “radioactive for the purposes of transportation”
 - Non-regulated
 - Class 7
- **Waste Packaging**
 - NNSSWAC requires specific packaging requirements for types of waste or package types (weight limits, strength requirements, shielding, etc.)
 - Package types include boxes, drums, soft-sided Industrial Packaging, cargo containers, and Type B containers with Certificate of Compliance
- **Hazard Communication**
 - Hazard Communication
 - Marking
 - Labeling
 - Placarding
 - Required by DOT and EPA
 - **Provides handlers and first responders with information on hazards in the package and/or conveyance**
 - NNSSWAC requires additional informational markings for waste disposal
- **Motor Carrier Selection and Monitoring**
 - Waste generator selects the motor carrier
 - Per DOE Orders and NNSSWAC, **motor carriers transporting waste** to the NNSS must be listed on the DOE Motor Carrier Evaluation Program (MCEP) Quarterly Evaluated Carrier Performance List (ECPL)
 - The MCEP provides DOE/National Nuclear Security Administration (NNSA) management and its contractors with a consistent, systematic framework for evaluating commercial carriers' capability to safely conduct DOE/NNSA radioactive or hazardous materials shipments
 - MCEP ECPL
 - Routinely monitors motor carrier performance
 - Provides information quarterly for use by DOE contractors
 - Monthly Motor Carrier Due Diligence Reviews
 - As ECPL date could be up to four months old, Radioactive Waste Acceptance Program (RWAP) performs a monthly detailed review of motor carriers who have historically transported waste/material to the NNSS
 - Monthly review utilizes information from the Federal Motor Carrier Safety Administration Safety Measurement System website, as well as the DOE Automated Transportation Logistics and Analysis System
 - Individual reviews are documented on the *NNSS Monthly Motor Carrier Due Diligence Review* form and made available to generators via the RWAP SharePoint site
 - Generators Day of Shipment Review

- RWAP also provides generators with an option of providing objective evidence that a day of shipment review was performed (covering a minimum set of data points identified by RWAP), by making available the *Waste Generators Day of Shipment Due Diligence Review* form as part of the monthly review form

- **Summary of Due Diligence Process**



- **Carrier Route Selection**

- The selection of routes for radioactive material is governed by 49 CFR 397.101 that states that a **carrier** or any person operating a motor vehicle containing a Class 7 (radioactive) material (49 CFR 172.403) for which placarding is required (49 CFR part 172) shall:
 - Ensure that the motor vehicle is operated on routes that **minimize radiological risk**
 - Consider available information on **accident rates, transit time, population density and activities, and the time of day and the day of week during which transportation will occur** to determine the level of radiological risk

- **Transporting Waste to the NNSS**

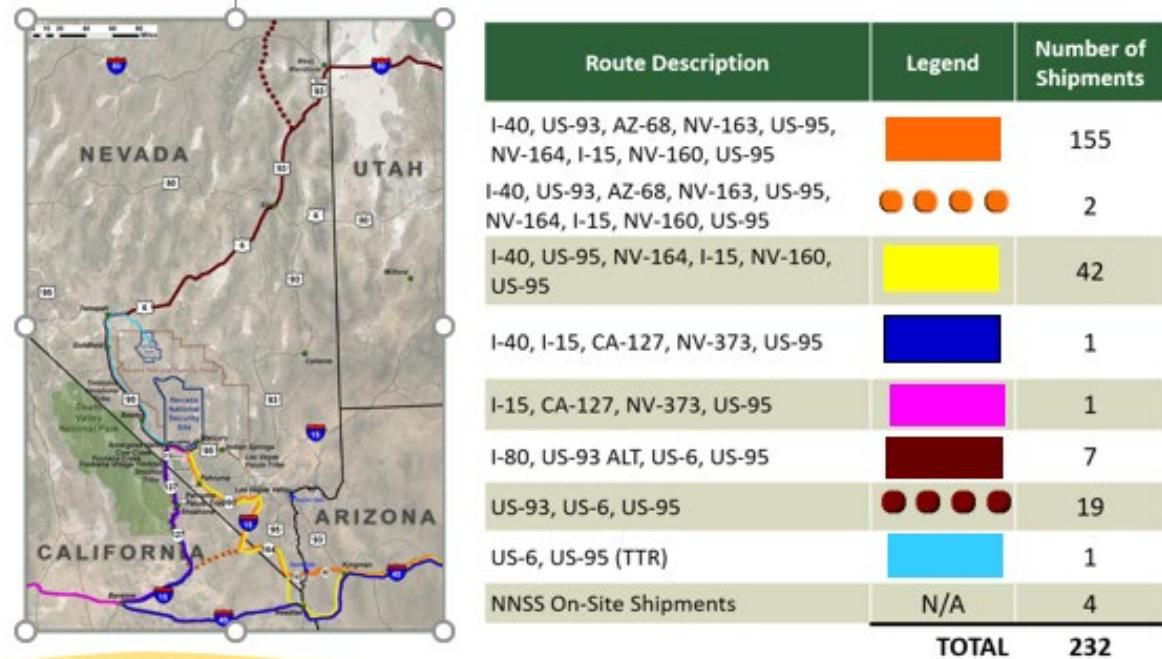
- Routing within Nevada region
 - Shipments prohibited over Hoover Dam, the O'Callaghan-Tillman Memorial Bridge and through Las Vegas I-15/US-95 interchange are 'off-limits' under the NNSSWAC
 - Preferences established for travel during summer and winter months
 - CA-127 blackout dates during specific holiday events
 - All highway, no direct rail access – surrounded by U.S. Air Force land

*Quarterly Waste Volume and Transportation Reports accessible at:

nnss.gov/pages/programs/RWM/Reports.html

- The **driver and the generator** discuss and determine the best route (based on current weather and road conditions) and the driver acknowledges the route selected on the Drivers Route/Shipment Information (aka driver's questionnaire) prior to exiting the origin facility
- The document, among other things:
 - Identifies restricted routes
 - Collects information about stops in Nevada for fueling, DOE-required rest breaks, **load securement checks**, and layovers

- **1st Quarter FY 2022 Shipment Routes**



- **Shipper/Generator and Carrier Interface**

Shipper/Generator	Motor Carrier/Driver
<ul style="list-style-type: none"> • Identify and characterize the waste • Package the waste • Apply Hazard Communication • Prepare compliant shipping documents • Examine transportation equipment • Observe/assist load securement • Select route with driver • Communicate to the driver the shipments driver's instructions • Notify NNSS of shipments using HAZTRAK 	<ul style="list-style-type: none"> • Provide qualified driver and equipment • Inspect equipment (daily requirement) • Secure packages to conveyance • Follow rules of the road (FMCSR) • Follow driver's instructions and agreed upon route • Communicate to generator/NNSS any in-transit issues

- **Required In-Transit Notifications**

- The generator or motor carrier must notify the NNSS Operations Control Center within one hour if any of the following occur:
 - Delayed arrival greater than four hours
 - Accident
 - Breach or possible breach of packages
 - Any stop by law enforcement that results in a moving violation
 - Any rerouting or deviation from the agreed upon route while in Nevada

- **RWAP Transportation Subject Matter Experts**
 - Assess NNSS waste generators procedures and processes involving the preparation and shipment of NNSS bound waste against the requirements of the NNSSWAC and various regulations (NRC, DOT, EPA)
 - As part of the facility evaluation teams
 - During day of shipment surveillances of specific shipments
- **Proactive Communications to Generators**
 - RWAP provides generators with a daily report with national and regional weather maps, as well as current road conditions (including scheduled roadwork) in six regional states (CA, AZ, UT, ID, OR, WY) and Nevada along routes used to transport waste to the NNSS
 - RWAP provides e-mail alerts as needed to generators with shipments on routes affected by closures or restrictions due to natural disasters (earthquakes/flash flooding, etc.) or scheduled roadwork
- **Waste Receipt at NNSS**
 - Upon arrival at the NNSS, shipping documentation is verified against the waste information preapproved through the RWAP process
 - Any discrepancy in shipping documentation, packaging, or radiological surveys may result in rejection of the shipment
 - Discrepancies are logged and immediate actions taken, if needed
- **Transportation Events**
 - Transportation events defined as: truck damage while parked, traffic-related accident, load shift, or reported leaking/breached package
 - No transportation event occurred during the 1st Quarter of Fiscal Year 2022
 - Since January 1999, 32,955 radioactive and classified waste shipments have been safely transported to the NNSS
 - 20 transportation events occurred to include a load shift, paperwork discrepancies, and other vehicles impacting trucks while parked
 - Three of the 20 shipments involved a breached package but there was **NO** release of radioactive contamination
- **Emergency Preparedness Working Group (EPWG) Funding Update**
 - EM Nevada Program funds the grant based on \$.50 per cubic foot of classified, LLW and MLLW disposed at the NNSS
 - Nearly **\$15.6** million has been distributed through the State of Nevada Division of Emergency Management to Clark, Elko, Esmeralda, Lincoln, Nye, and White Pine counties
 - Funding provided in accordance with approved grant application and oversight of funding use
 - Priorities for grant funding include consideration for the needs of a county and the resource base available in that county
- **Training Coordination**
 - NNSS uses DOE's Transportation Emergency Preparedness Program (TEPP) to improve understanding of radiological hazardous material response
 - More than 1,433 students (representing 40 communities) trained during 92 classes conducted in Nevada since 2014
 - TEPP worked with Nye County emergency responders to film a new, nationwide training video involving a radioactive material

- **Review**
 - Background of Waste Disposal
 - Types of Waste Disposed at the NNSS
 - Reasons for NNSS Selection
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 - Waste Receipt at NNSS
 - Emergency Preparedness
- **Questions**

In response to Board questions, the following clarifications were provided:

- Currently, the Department is not changing its requirements for routing of waste shipments to the NNSS. The routes are selected by the shipper who considers several factors, including safety of the public. The NNSSWAC prohibits routing over Hoover Dam, the O'Callaghan-Tillman Memorial Bridge, and through the Las Vegas I-15/US-95 interchange.
- The Department has conducted studies on its waste shipments for potential dose to the public. These studies have shown that there is very little risk to the public. All DOE shipments and packaging must meet DOT requirements, which are written to protect the health and safety of the public.
- Capital road improvements are under the purview of the DOT or the appropriate state or local agency responsible for the roadway and outside the purview of the DOE. The Department's ability to directly impact road projects is limited.
- Three of the transportation events included in the briefing involved a breached package but there was **NO** release of radioactive contamination, and none were caused by a truck or trailer accident.
- Transportation of waste to the NNSS must be conducted by a commercial motor carrier with most vehicles being 18-wheelers. There have been hot shot shipments, but again they are transported by commercial motor carriers that have the necessary equipment for the cargo. Hot shot shipments are transported using a dually truck with a commercial flatbed trailer. There have also been oversized shipments that have required a transport vehicle larger than an 18-wheeler. The Department does not mix loads with non-DOE shipments, as transporters with DOE shipments destined for the NNSS are required to be exclusive use or dedicated service.
- Typically, a transporter will route the shipment using the most direct course as it is the safest in most cases. The transporter will also strive to schedule its trucks to be on the roadways during times when it is least congested with fewer cars.
- TEPP videos: TEPP Full Length Videos | Teppinfo.com
- Federal Motor Carrier Safety Administration (FMCSA) website: [Federal Motor Carrier Safety Administration \(dot.gov\)](http://Federal Motor Carrier Safety Administration (dot.gov))
- The EM Nevada Program does not provide specific notifications on waste shipments to county emergency management agencies, although updates are regularly provided during LLW Stakeholders Forums meetings. The Program can provide access to emergency

management organizations to the HAZTRAK system upon request. There is standard emergency response information, along with the placards, available for each truck that is available to the drivers.

- The NNSS Site-Wide Environmental Impact Statement (SWEIS) addressed, reviewed, and studied the transportation routing of radioactive waste to the NNSS that was last published in February 2013 and accessible [here](#). The NNSS SWEIS is under the purview of the NNSA/NFO, although EM Nevada Program contributes when updates are needed. During future NNSS SWEIS updates, transportation routing will be reevaluated and reanalyzed.

Chair Bonesteel thanked the presenter and staff for answering questions and noted that the NSSAB will not be providing a recommendation at this time. He shared that the Board looks forward to future educational opportunities and discussions on the topic of transportation.

Optimization of Hybrid Meeting Approach – Work Plan Item #2, Jesse Sleezer, Strategic Communications Manager, Navarro

- **NSSAB – Work Plan Item #2**
 - From a community perspective, the NSSAB will provide recommendation(s) for ways the EM Nevada Program could:
 - Enhance or optimize hosting of hybrid-format public meetings
 - Improve public participation during NSSAB Full Board meetings
 - NSSAB recommendation is due in May 2022
- **Outline**
 - NSSAB Meetings: Recent History
 - What is a Hybrid Meeting?
 - Hybrid Meetings: Pros and Cons
 - Considerations for Recommendations
 - Related Request from EM HQ
 - NSSAB Meeting Public Outreach
- **NSSAB Meetings: Recent History**
 - Prior to March 2020, all NSSAB Full Board meetings were conducted in-person
 - Option to call-in via phone; members/liaisons followed along with handouts
 - Since March 2020, all NSSAB meetings have involved a virtual component
 - Hosted via Microsoft Teams
 - Option to call-in via phone remains
 - July 2021 and February 2022 meetings utilized “hybrid” format
- **What is a Hybrid Meeting?**
 - Generally, any meeting that allows for both remote and in-person attendance
 - For NSSAB meetings, those hosted in-person with the capability to participate via Microsoft Teams
 - At this time, primarily hosted in Molasky 15th Floor Multimedia Room
 - EM Nevada/Navarro exploring options for hosting hybrid meetings in off-site locations (i.e., community centers)
- **Hybrid Meetings: Pros and Cons**
 - Pros in our experience:
 - Increased participation in general
 - Broader participation by geography
 - Cons in our experience:
 - Quality of conversation
 - Ease of collaboration

- Loss of “hallway” discussions
 - Technical issues by platform
 - Technical issues by user
- **Considerations for Recommendations**
 - This is a unique Work Plan item, because your feedback will have a direct impact on the Board’s own experience
 - As you consider recommendations, some key considerations:
 - Technical enhancements?
 - Process enhancements?
 - Expectations for participation?
 - Transferability to off-site meetings?
 - General preferences?
- **Related Request from EM HQ**
 - EM-2 recently requested that Site-Specific Advisory Boards (SSABs) discuss ways to improve public participation during Full Board meetings
 - Encouraged SSABs to consider community demographics and board logistics, such as meeting times, locations, etc.
 - Natural nexus with this Work Plan item; please keep this request in mind as you consider recommendations
- **NSSAB Meeting Public Outreach**
 - Notice published in the Federal Register
 - Newspaper ads (LV Review Journal, Pahrump Valley Times, Tonopah Times)
 - Social media (Facebook and Twitter)
 - Press release to local news outlets
 - NNSS News (33,875 subscribers)
 - Community calendars
 - NSSAB and NNSS websites
 - Bulletin Board flyers posted by NSSAB members
- **Review**
 - NSSAB Meetings: Recent History
 - What is a Hybrid Meeting?
 - Hybrid Meetings: Pros and Cons
 - Considerations for Recommendations
 - Related Request from EM HQ
 - NSSAB Meeting Public Outreach
- **Questions**
- **NSSAB Path Forward – Work Plan Item #2**
 - From a community perspective, the NSSAB will provide recommendation(s) for ways the EM Nevada Program could:
 - Enhance or optimize hosting of hybrid-format public meetings
 - Improve public participation during NSSAB Full Board meetings
 - NSSAB recommendation is due in May 2022

In response to Board questions, the following clarifications were provided:

- The commitments for both NSSAB members and liaisons are defined in the NSSAB By-Laws available [here](#). Liaisons are requested to provide a short report at each full Board meeting, and if unable to attend then the liaison can submit a written report to the NSSAB Office that will be read into the record on their behalf. Prior to the beginning of each fiscal

year, an annual confirmation letter is sent out to current and past liaison organizations to reconfirm their interest and availability in sponsoring a liaison position on the NSSAB. The liaison organization chooses the person who will fill that role.

- A liaison does not term out after a specific number of years as does a member. There are two liaison options: Full liaison and Limited liaison. A Full liaison allows for the organization to have a voice in Board discussion and input into recommendations and relies on the liaisons regularly attending NSSAB meetings. The other option is Limited that allows for liaison organizations to observe NSSAB activities by receiving meeting minutes, monthly reports, NSSAB recommendations, and DOE responses, and does not allow for a formal seat on the Board.
- The Department has not issued a directive or guidance on public hybrid meetings. There have been numerous discussions that the hybrid model tends to show promise for a broader participation from SSAB members and the public due to the ease of access to meetings. The most likely path forward is to have an option available to participate virtually. The NSSAB could give consideration for the Board's expectations for its member's attendance, for example: Would the Board's expectation be for in-person attendance as the primary prerogative with remote participation as the backup? Would the Board's expectation be for participation as an individual member deems most appropriate?
- In Microsoft Teams, remote speakers can be spotlighted and projected on the screen. In-person speakers can be spotlighted by using cameras in the meeting room. Microsoft Teams is beta-testing live screen transcription, and the Program will continue to consider using advancing technologies when available.

Chair Bonesteel requested that NSSAB members carefully consider the comments made by members during the discussion and to research other potential recommendations for work plan item #2 and come prepared to continue discussion and formulate and finalize a recommendation during the May 18th NSSAB meeting.

Meeting Wrap-Up and Adjournment

Upcoming calendar of events:

- EM SSAB National Chairs' Meeting – Virtual – April 20-21, 2022 (NSSAB Chair and Vice-Chair to attend and present round robin topics; remaining NSSAB encouraged to observe via livestream) **UPDATE:** EM SSAB announced on 3/25/2022 that a hybrid-format meeting will be held May 3-5, 2022.
- NSSAB Intergovernmental Liaisons meeting – May 18, 2022, at 3 p.m. (NSSAB Chair and Vice-Chair to attend)
- NSSAB Full Board meeting – May 18, 2022, at 4 p.m.

Any questions on the calendar of events, please contact the NSSAB Office at 702-523-0894.

Member William DeWitt made a motion to adjourn the meeting. The motion was seconded and passed with a majority. The meeting was adjourned at 8:22 p.m.