



Nevada Site Specific Advisory Board (NSSAB)

Full Board Meeting Molasky Corporate Center Las Vegas, Nevada

4:00 p.m. – February 15, 2023

- Members Present:** Erik Anderson, Joycelyn Austin-Mabe, Lisa Blandi, John Cole, William DeWitt, Gary Elgort, Anthony Graham (Chair), Mark Hilton (Vice-Chair), Dan Peterson Janice Six, Favil West, Eddie Williams
- Members Absent:** William Dolan, Bruce Jabbour, Kevin Trainor
- Liaisons Present:** Christine Andres (State of Nevada Division of Environmental Protection [NDEP]), Frank Carbone (Nye County Commission) John Klenke (Nye County Natural Resources and Federal Facilities Office [NRFFO]), Scott Lewis, Frank Bonesteel, and Patrick Lazenby (Nye County Emergency Management [NCEM])
- Liaisons Absent:** Richard Arnold (Consolidated Group of Tribes and Organizations [CGTO]), Jared Brackenbury (Lincoln County Commission), Phil Klevorick (Clark County)
- Department of Energy (DOE):** **Environmental Management (EM) Nevada Program:** Tiffany Gamero (Deputy Designated Federal Officer [DDFO]), Jhon Carilli, John Myers, Andrew Weber
National Nuclear Security Administration/Nevada Field Office (NNSA/NFO): Dr. David Bowman, John Daniels, Kathryn Gladden
- Government Contractors:** **Navarro Research and Engineering, Inc. (Navarro):** Grant Johnson, Kevin Knapp, Glenn Puit, Ari Rosenberg, Barbara Ulmer
Mission Support and Test Services, LLC (MSTS): Patrick Hillyard, G. Kris Brienza-Larsen, Ken Moy
Desert Research Institute (DRI) Chuck Russell
U.S. Geological Survey (USGS): Wayne Belcher, Jeffrey Sanders
- Members of the Public:** Mary DeWitt

Open Meeting/Chair's Opening Remarks

Chair Anthony Graham welcomed and thanked everyone for attending the NSSAB meeting. He noted that it is a full agenda tonight including the development of round robin topics for the upcoming EM Site-Specific Advisory Board (SSAB) National Chairs' Meeting and the briefing and NSSAB recommendation for the Fiscal Year (FY) 2025 Prioritization work plan item. Chair Graham encouraged everyone to participate and share opinions and bring ideas to the table. Member William DeWitt 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, Program Manager for the Clark County Nuclear Waste Division, was not available to attend the meeting but provided the following written report: Liaison Klevorick attended last week's Low-Level Waste (LLW) Stakeholders Forum. He will be attending the Waste Management Symposia 2023 (WMS) in Phoenix, AZ at the end of the month. In May 2023, Liaison Klevorick will attend the Energy Communities Alliance Forum in Paducah, KY, and the National Transportation Stakeholders Forum in St. Louis, MO.

Nye County Commission (*Frank Carbone*)

Liaison Frank Carbone had nothing new to report.

NCEM (*Scott Lewis*)

Liaison Scott Lewis introduced himself as the Director of Emergency Management in Nye County. NCEM hosted the Local Emergency Planning Committee meeting on February 2nd and DOE's LLW Stakeholders Forum on February 8th. Planning is underway for upcoming trainings, including HAZMAT Awareness at the end of this month and HAZMAT Operations from March – May 2023. NCEM is participating in a Nevada National Security Site (NNSS) full-scale exercise next month. He will be participating in a hazardous mitigation planning kickoff meeting on March 10, 2023. The Nye County team met yesterday, and he extended their sincerest gratitude for DOE's funding assistance that has been instrumental in purchasing the necessary equipment for training, communications, and other emergency management items essential to a county with a vast geographical footprint. Liaison Lewis concluded that they look forward to upcoming projects and the continued support.

NRFFO (*John Klenke*)

Liaison John Klenke had nothing new to report.

NDEP (*Christine Andres*)

Liaison Christine Andres introduced herself as the Chief of NDEP's Bureau of Federal Facilities. She will also be attending the WMS, an informative international conference held annually in Phoenix, AZ. The first week in May 2023, the State and Tribal Government Working Group will be hosting its spring meeting in Las Vegas, NV that will include a tour of the NNSS. As a Nevada

representative on the Federal Facilities Task Force, she will also be attending the National Governors Association spring meeting in Hanford, WA in May 2023.

Liaison Andres reminded the NSSAB that NDEP has issued a public comment period on the renewal of a groundwater pollution discharge permit for the NNSS E-tunnel that closes tomorrow if members are interested in providing comments. She added that NDEP has also issued a 45-day public comment period on the Resource Conservation and Recovery Act hazardous waste renewal permit at the NNSS that can be accessed [here](#). NDEP staff will be attending the Devils Hole Workshop in April 2023. She thanked Tiffany Gamero and Navarro for setting up a tour for her new supervisor to visit a new corrective action unit on the NNSS next Wednesday. Liaison Andres concluded that NDEP, in collaboration with the EM Nevada Program, Navarro, MSTs, and NNSA/NFO, accomplish a lot of work with the number of staff, which reflects a good working relationship and a commitment by all the organizations involved.

NNSA/NFO Update (*John Daniels, NNSA/NFO*)

Ms. Kathryn Gladden, NNSA/NFO Program Liaison for EM, reported that the NNSA Administrator has requested that NNSA Headquarters waste management staff conduct performance reviews at NNSA sites to assess the performance of the management of LLW and hazardous waste. The document review includes the NNSS and begins in March 2023 with field activities in April 2023. This review indicates the importance that the NNSA Administrator places on the management of waste generator sites as well as the final disposition of waste at the NNSS, ensuring good stewardship and compliance with all the regulations to safeguard public health and safety.

Mr. John Daniels, Federal Public Affairs Officer, introduced Kris Larsen, Project Manager for the NNSS, who supports the National Ignition Facility (NIF) at Lawrence Livermore National Laboratory in Livermore, CA. Mr. Larsen provided a brief overview of the work that NNSS staff is contributing at the NIF, the largest and most energetic laser system in the world built on decades of research. NIF is used to support maintaining the safety and security of the U.S., exploring new areas of science, and laying the groundwork for clean, sustainable energy. The NNSS has played a critical role in supporting NIF research and development since the early 2000s. The NNSS has provided resources for diagnostic development, fielding and characterizations, and has deployed full-time employees to support target area operations, safety systems, diagnostic fielding, control room operations, design fabrication, assembly installation, operational testing, data acquisition, maintenance and troubleshooting repair.

On December 5, 2022, NIF conducted the first controlled fusion experiment in history to achieve ignition, meaning it produced more energy from fusion than the laser energy to produce it. The achievement of ignition is a big step toward the goal of creating commercially viable power. While there are significant technical challenges to overcome, the recent ignition milestone provides a proof of concept for the feasibility for fusion energy production and unlocks new avenues of research and development. Mr. Larsen concluded that compared to other forms of energy production, nuclear fusion has benefits, including that it is virtually unlimited fuel, no greenhouse gas emission or long-lived radioactive waste.

U.S. DOE Update (*Tiffany Gamero, DOE*)

DDFO Tiffany Gamero provided updates on the following topics:

- The EM Nevada Program has wrapped up perlite removal at the NNSS's Test Cell C (TCC) complex as of today. Additional prep work for demolition at TCC and the Engine Maintenance Assembly and Disassembly (EMAD) complexes is continuing. The Industrial Sites team continues to work on characterization and hazard reduction activities for upcoming demolition/closure of the two legacy facilities.
- Last week, the revegetation effort at the NNSS Area 5 Radioactive Waste Management Complex (RWMC) continued with more seeding and mulching. This is part of the ongoing effort to revegetate portions of the NNSS terrain. The mulching and seeding were performed without any issues.
- The Underground Test Area (UGTA) team recently made a Pahute Mesa Corrective Action Unit Groundwater Models presentation to the U.S. National Park Service in Death Valley. The presentation was a success with more than 40 people attending, including representatives of several other federal agencies. In addition, in response to the recently completed peer review, the UGTA team is in ongoing dialogue with DOE and NDEP regarding data needs for the Pahute Mesa region for possible future model evaluations.
- On February 8, 2023, the EM Nevada Program successfully held the LLW Stakeholder Forum in Pahrump, NV. DDFO Gamero thanked Nye County and all the emergency management personnel, county representatives, and community members who attended. The highlight of the meeting was a comprehensive presentation by NCEM Director Scott Lewis. Chief Lewis presented on the challenges of providing services to a large county and about all the work that goes into preparing for emergency management threats.
- The WMS will be held in Phoenix, AZ from February 27 to March 2, 2023. Several members of the EM Nevada team and representatives from Navarro will be attending. EM Nevada will also be staffing an informational booth at the conference, and three Navarro staffers are participating in conference presentations.
- During last month's meeting, the EM Nevada Program promised more information on Navarro's awarding of grants to further education in science, technology, engineering, and math (STEM). The STEM grant program, in its second year, was created to support educational activities near the NNSS. The schools receiving funding for the 2023 school year are Amplus Academy, which had two applications chosen, and Walter Bracken STEAM Academy, both in Las Vegas, NV. Walter Bracken STEAM Academy will use its funding to purchase a class set of Spheros educational robots. Students will learn coding and problem-solving techniques and gain hands-on experience with the new equipment.

Amplus Academy will use its grant to fund a new school garden in support of a Garden Club open to students' grades K-12. Students will cultivate and grow a variety of foods and flowers by installing raised garden beds and working alongside the Garden Farms Foundation, an urban farming company based in North Las Vegas, NV. Amplus Academy had a second application selected as well for a proposal to enhance the Health Sciences Program for 7th and 10th graders. Currently, the school's laboratory does not have proper

supplies for many labs and the Health Science curriculum is very outdated. With help from the grant, the school will provide a new digital laboratory platform, offer an updated 7th and 10th grade Health curriculum that reflects changes in today's healthcare system, and increase the number of cardiopulmonary resuscitation (CPR) certified students with additional CPR training equipment and the opportunity for college credit.

Other NSSAB Business (*Anthony Graham, Chair*)

The EM SSAB National Chairs' Meeting will be held on March 21-22, 2023, at the DOE Forrestal Building in Washington, D.C. The meeting on March 21 will be a full day and includes the round robin from each of the eight EM advisory boards to present topics to EM Headquarters Senior Management that highlight the top interest/concerns and accomplishments of each of the boards. On March 22, the meeting will be held in the afternoon with a tour in the morning. The NSSAB is encouraged to observe the meeting and will be provided a livestream link. Representing the NSSAB, Vice-Chair Mark Hilton and Member Eddie Williams will participate with the other EM SSAB leadership.

Chair Graham facilitated brainstorming of potential topics for the round robin:

1. Emphasizing community engagement: Meetings held in multiple counties across southern Nevada, including hybrid format (Board accomplishment).
2. Ongoing training/educating members: Members learned about mission work and history; site visits upon availability (Board accomplishment).
3. Strong collaborative relationship with EM Nevada: Past EM Nevada initiatives such as the Tribal Revegetation Project resulted from Board recommendations (Board accomplishment).
4. Long-term security of the NNSS: Looking generations in the future as it relates to the public (Board interest/concern).
5. Waste inspection: Improving inspection capability at the Area 5 RWMC at the NNSS. (Board interest/concern).

Member Dan Person made a motion to adopt the round robin topic #1 listed above for the next EM SSAB National Chairs' Meeting. The motion was seconded and passed unanimously. Member Gary Elgort made a motion to adopt the round robin topics #2-5 listed above. The motion was seconded and passed unanimously with one abstention. Vice-Chair Hilton will work with members that suggested the round robin topics to develop a narrative to use for the presentation.

Chair Graham noted that after a three-year hiatus, the Devils Hole Workshop 2023 will be held on April 26-28, 2023, at the Longstreet Inn, Amargosa Valley, NV. It has been approved for up to four NSSAB members to attend as an educational opportunity. This workshop is groundwater-focused and of a technical nature. The final agenda is forthcoming. Responsibilities include attending the sessions and the field trip, taking notes, and providing a written report on items of interest for the rest of the NSSAB. Members Gary Elgort, Lisa Blandi, Kevin Trainor, Erik Anderson, and John Cole expressed interest in attending the Devils Hole Workshop. A secret ballot was held with Members Gary Elgort, Lisa Blandi, Erik Anderson, and John Cole chosen by the Board. Member Kevin Trainor is an alternate if any of the members cannot attend for any reason.

FY 2025 Prioritization ~ Work Plan Item #2

- **Tonight's Path Forward**
 - Overview
 - Ranking process explanation
 - Briefing of each task
 - Waste management disposal
 - Post-closure monitoring
 - Industrial Sites
 - Stakeholder support
 - Groundwater characterization
 - Group discussion
 - Individual rankings
 - Prioritization tallying
 - Vote on final recommendation

Overview, Andrew Weber, Lead Project Controls Specialist, EM Nevada Program

- **EM Nevada Program Baseline**

Utilized by EM Nevada Program to support life cycle planning to execute its mission

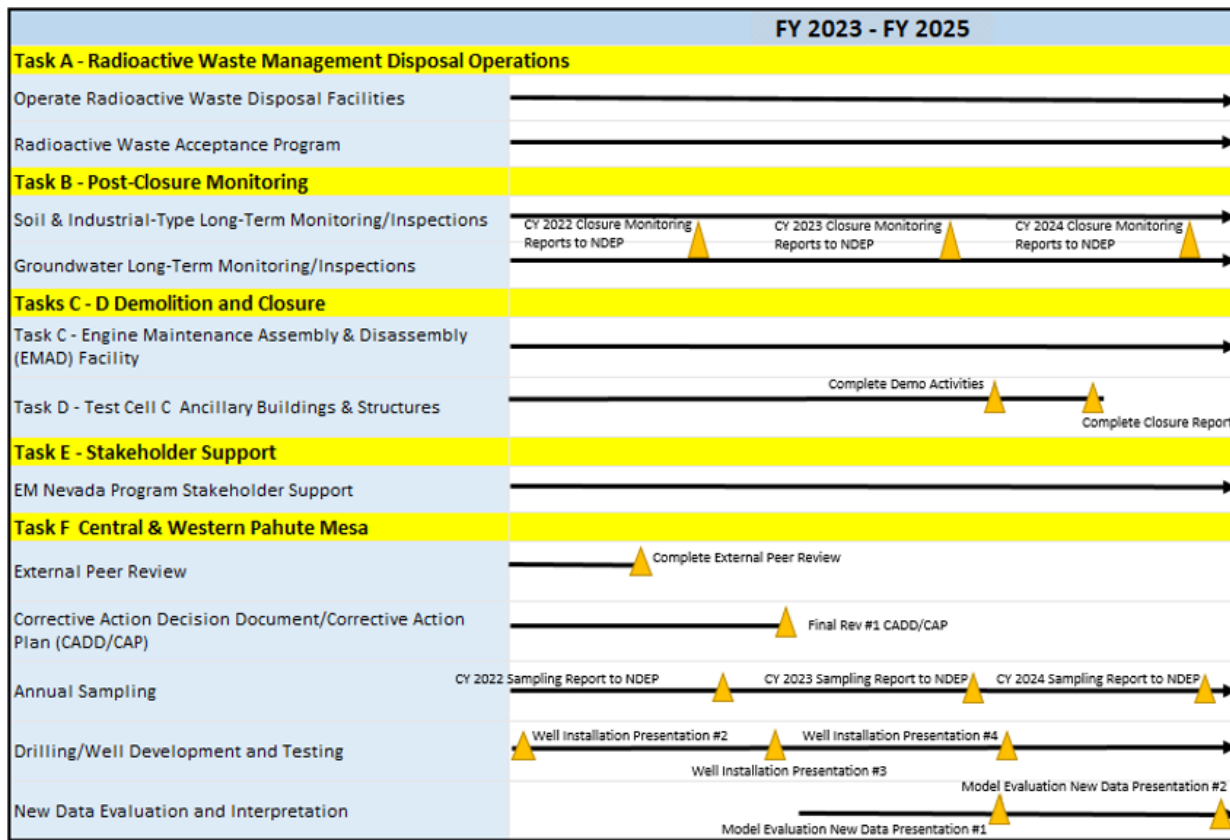
 - Three (3) major components make up the baseline
 - **Scope of Work:** Description of all work elements that need to be accomplished
 - **Budget:** Estimated cost to accomplish the scope of work
 - **Schedule:** Timeline and prioritization of the scope of work

Elements identified in the EM Nevada Program baseline are fully integrated
- **EM Nevada Program Baseline Planning Considerations**
 - Annual fundings
 - Scope is prioritized to maximize amount of work that can be accomplished
 - Scope uncertainties
 - Risk analysis performed to account for cost and schedule impacts associated with unknowns, such as: extreme weather, subsurface conditions, extent of contamination, etc.
- **EM Nevada Program Baseline Maintenance**
 - Performance against the baseline
 - Contractors report monthly performance status to EM Nevada Program, where it is integrated and analyzed, then compared against baseline plan
 - Baseline changes
 - Changes to baseline are required periodically to account for addition or deletion of scope, scientific strategy changes, or contract modifications
- **Federal Budget Process**



Example of DOE budget planning timeline

- **EM Nevada Baseline Schedule**



Ranking Process, Barbara Ulmer, Facilitator

- **The Ranking Process**
 - Presentation of each of the six (6) tasks (designated by letters)
 - Group discussion with members and liaisons
 - Each member will rank the tasks with 1-6 points using their worksheet
 - NSSAB Office will tally the rankings and present the results to the Full Board tonight
 - Further discussion, if necessary
 - NSSAB will vote on final ranking recommendation

Waste Management Disposal Task, Jhon Carilli, LLW Activity Lead

- **Task A –Radioactive Waste Management Disposal Operations**
 - Maintain capability to safely receive and dispose approximately .8 to one million cubic feet per year of LLW, MLLW, and classified waste from on-site and off-site generators
 - Continue environmental monitoring activities
 - Construct and close waste cells in Area 5 RWMC, as necessary
 - Cells 8 and 16 – seeding and outplants
 - Maintain safe and compliant waste disposal in accordance with applicable regulations
 - Continue generator facility evaluations and waste verifications conducted by Radioactive Waste Acceptance Program (RWAP) per the NNSW Waste Acceptance Criteria
 - Risk/consequences of delay:
 - People and environment

- NNSS-specific: Potential for inability to dispose of NNSS wastes resulting in additional costs for off-site disposal
- Waste stored at other DOE sites may not have a safe and secure disposal path, potentially impacting the public and environment
- Project
 - DOE complex: additional costs; inability to dispose some wastes
- Regulatory
 - DOE agreements and schedules with NDEP could be impacted
- Milestone:
 - Could impact EM Nevada Program demolition and closure activities

Post-Closure Monitoring Task, Tiffany Gamero, Long-Term Monitoring Lead, EM Nevada Program

• **Task B – Post-Closure Monitoring**

- Description:
 - Conduct post-closure monitoring on the NNSS
 - Post-closure inspections and maintenance
 - Groundwater sampling and analysis
 - Water level monitoring
 - Groundwater monitoring network maintenance
 - Reporting
 - Continue seeding and outplants on the 92-Acre Area at the Area 5 RWMC
- Risk/consequences of delay:
 - People and environment
 - Potential delay in identification of changes to implemented controls at closed sites
 - Increased risk that potential contaminant movement and/or potential exposure pathways may not be immediately recognized
 - Project
 - Delayed ability to monitor radionuclide migration
 - Regulatory
 - DOE agreements and schedules with NDEP could be impacted
- Milestone:
 - Submit annual closure monitoring reports to NDEP

Industrial Sites Task, Tiffany Gamero, Industrial Sites Activity Lead, EM Nevada Program

• **Task C – EMAD Facility**

- Description:
 - Complete train shed building demolition
 - Complete disposition of rolling stock (rail cars and engines)
 - Complete demolition of water tower, electric substations, and ground level stacks

• **Task D – TCC Ancillary Buildings and Structures**

- Description:
 - Continue demolition and closure activities

• **Tasks C and D – EMAD and TCC**

- Risk/consequences of delay:
 - People and environment
 - Any corrective actions would be delayed
 - Project

- Delayed completion of Environmental Restoration mission
- Regulatory
 - DOE agreements and schedules with NDEP could be impacted
- Milestones:
 - Any FFACO milestones (TBD) could be impacted

Stakeholder Support Task, Glenn Puit, Strategic Communications Manager, Navarro

• **Task E – Stakeholder Support**

- Descriptions:
 - Develop and disseminate information on EM Nevada Program activities to diverse stakeholder groups
 - General public; NSSAB; intergovernmental liaisons; other local and regional government leaders; waste generator community; technical peers; and DOE headquarters
 - Outreach and related products planned and prepared in coordination with technical projects, such as: Underground Test Area (UGTA), RWAP, etc.
 - NSSAB, LLW Stakeholders Forum, and other intergovernmental meetings (local and national)
 - Community and educational outreach events
 - Website content, presentations, fact sheets, articles, videos, and social media posts

Groundwater Characterization Tasks, John Myers, Underground Test Area (UGTA) Activity Lead, EM Nevada Program

• **Task F – Central and Western Pahute Mesa**

- Descriptions:
 - Model Evaluation
 - Annual Sampling
 - ❖ Groundwater sampling
 - ❖ Water level measurements
 - ❖ Develop Annual Sampling Report
 - Data Collection
 - ❖ Complete design for future data collection
 - Continue New Data Evaluation and Interpretation
 - Risk/consequences of delay:
 - People and environment
 - Low risk that potential contaminant movement and/or exposure pathways may not be immediately recognized
 - Project
 - Delayed completion of Environmental Restoration mission
 - Regulatory
 - DOE agreements and schedules with NDEP could be impacted
 - Milestones:
 - Submit CY 2024 Annual Sampling Report to NDEP
 - Complete Status Presentation to NDEP
- Tonight's Path Forward
 - Overview
 - Ranking process explanation
 - Description of each task (six [6] tasks total)

- Group discussion
- Individual rankings
- Prioritization tallying
- Vote on final recommendation

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

- In past fiscal years, the EM Nevada Program has received approximately \$60 million annually. At this time, any release of funding amounts moving forward has been embargoed by the U.S. Office of Management and Budget.
- The inflation factor used in budgeting by the EM Nevada Program is between two to four percent annually. In response to recent economic issues, the escalation factor has been increased for the next few fiscal years.
- Of the DOE Complex waste, the majority is disposed onsite at the location where it is generated. There are commercial facilities that accept and dispose of DOE waste. Annually, the NNSS accepts and disposes approximately five percent of the DOE Complex waste.
- As a government entity, the NNSS receives funding from Congress for the disposal of waste at the Area 5 RWMC and cannot generate revenue from activities.
- The EM Nevada Program funds the Emergency Preparedness Working Group (EPWG) grant based on \$.50 per cubic foot of waste disposed at the NNSS. EPWG funding is distributed through the State of Nevada Division of Emergency Management to six Nevada counties to support emergency management operations and equipment.
- Archeologists from the Desert Research Institute have conducted a separate cultural assessment on the EMAD and TCC Facilities that resulted in formal reports including research and photographs. The EM Nevada Program will undergo negotiations with the State of Nevada Historic Preservation Office to determine how to best mitigate any adverse effects to these culturally significant facilities. A major determination is to consider both cultural assessments for EMAD and TCC together in a historical landscape that includes the railroad that connected the facilities.
- Should work at TCC and EMAD be delayed, there is a possibility that key project personnel with process knowledge could leave the Program. Another impact for any delay would risk any subcontracts that are in place.
- The EMAD and TCC Facilities were in use in the 1960s, so over time the buildings have deteriorated resulting in safety issues. As examples, the cooling tower on the roof of EMAD is unsafe, doors have broken down and are open, and wildlife has entered the facilities. Ultimately, there is not a use for these facilities. The benefit for keeping the buildings for site tours is far outweighed by the costs incurred for maintenance to keep the buildings safe for people to enter.
- The EM Nevada Program is working with the Nevada State Railroad Museum to donate the two locomotives and manned control car if funding to move them is secured.
- The last time that the EMAD Facility was used for a project was the late 1990s.
- Once the facilities are taken down to slab, there are no current plans to build new structures.
- The main structure at TCC does have a use restriction due to contaminants of concern above action levels in the waste left onsite. Prior to any activities conducted at the facilities, radiological control technicians conduct scans of the area for the safety and protection of the workforce.

- Radioactive contamination has not been detected above the Safe Drinking Water Act (SDWA) maximum contaminant level (MCL) in groundwater beyond the NNSS. It is anticipated within the next few years that the SDWA MCL in groundwater will be exceeded, although contained on federally controlled lands and not reach public water supplies.

Chair Graham led a Board discussion to address any further thoughts, concerns, comments, suggestions, or questions related to the work plan item #2 for FY 2025 Prioritization. A break was taken to tally the individual prioritizations into a group ranking. After announcement of the group ranking results, Chair Graham led a final group discussion with the Board, and liaisons were asked to provide any perspectives from their organizations.

After further Board deliberation, Member DeWitt moved to approve the prioritization rankings listed below as a formal recommendation for submission to the EM Nevada Program for consideration during its budget process. The motion was seconded and passed unanimously.

Rank	Task	Title
1	B	Post-Closure Monitoring
2	A	Radioactive Waste Management Disposal Operations
3	F	Central and Western Pahute Mesa
4	E	Stakeholder Support
5	C	EMAD Facility
6	D	Test Cell C Ancillary Buildings and Structures

Meeting Wrap-Up and Adjournment

Upcoming calendar of events:

- Waste Management Symposia – Phoenix, AZ – February 27 – March 3, 2023 (NSSAB Member Elgort to attend)
- EM SSAB National Chairs’ Meeting – Washington, D.C. – March 20-21, 2022 (NSSAB Vice-Chair Hilton and Member Williams to attend)
- NSSAB Intergovernmental Liaisons meeting – Mesquite City Hall - April 19, 2023, at 3 p.m. (NSSAB Chair and Vice-Chair to attend)
- NSSAB Full Board meeting – Mesquite City Hall - April 19, 2023, at 4 p.m.
- Devils Hole Workshop – Amargosa Valley, NV – April 26-28, 2023 (four NSSAB members to attend)
- NSSAB Tour of EMAD and TCC at the NNSS – May 17, 2023

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

Member Janice Six made a motion to adjourn the meeting. The motion was seconded and passed with a majority. The meeting was adjourned at 7:58 p.m.