



Nevada Site Specific Advisory Board (NSSAB)

Full Board Meeting

**Frank H. Rogers Science and Technology Building
755 East Flamingo, Las Vegas, NV
4:00 p.m. – September 18, 2019**

Members Present: Amina Anderson, Frank Bonesteel (Chair), Bill DeWitt, Pennie Edmond, Charles Fullen (phone), Dick Gardner, Anthony Graham, Steve Rosenbaum (Vice-Chair), Richard Stephans, Dina Williamson-Erdag, CJ Wissmiller (phone)

Members Absent: Karen Eastman, Tanya Henderson, Donald Neill, Janice Six, Richard Twiddy

Liaisons Present: Chris Andres (State of Nevada Division of Environmental Protection [NDEP]), Richard Arnold (Consolidated Group of Tribes and Organizations [CGTO]), Richard Friesse (U.S. National Park Service [NPS]), Darrell Lacy (Nye County Nuclear Waste Repository Project Office [NWRPO]), Delon Winsor (Esmeralda County Commission)

Liaisons Absent: Leo Blundo (Nye County Commission), Jared Brackenbury (Lincoln County Commission), Carl Gregory, (White Pine County Commission), Phil Klevorick (Clark County), Scott Lewis (Nye County Emergency Management [NCEM])

Department of Energy (DOE): David Bowman, Kathryn Knapp, and Darwin Morgan (National Nuclear Security Administration [NNSA], Jhon Carilli, Tiffany Gamero, John Myers, Kelly Snyder (Deputy Designated Federal Officer [DDFO]), Bill Wilborn

Facilitator: Barb Ulmer (Navarro)

Contractors: Patty Neese and Ken Rehfeldt (Navarro), Leo Drozdoff and Patty Hardesty (Mission Support and Test Services, Inc. [MSTS])

Public Signed In: John Kivett

Open Meeting/Chair's Opening Remarks

Chair Frank Bonesteel welcomed everyone to the meeting. Following the Chair's opening remarks, Member William DeWitt moved to approve the agenda as presented. The motion was seconded and passed unanimously.

Public Comment

There was no public comment.

U.S. DOE Update (*Bill Wilborn, DOE*)

Mr. Bill Wilborn introduced David Bowman, the NNSA Deputy Manager for the Nevada Field Office (NFO), who was available for the discussion and to answer any questions.

Mr. Wilborn continued that the Environmental Management (EM) Nevada Program is preparing for a continuing resolution in the event that the Energy and Water bill is not signed by October 1, 2019. The funding request for fiscal year (FY) 2020 is \$60.7 million, which is adequate to accomplish all scheduled activities at the Nevada National Security Site (NNSS).

Mr. Wilborn reminded the Board that DOE issued the final Request for Proposals (RFP) for the Environmental Program Services (EPS) contract in July 2019. The final RFP is 100% set-aside for small business with a total estimated value of \$350 million over a ten-year ordering period. The proposal due date was extended to September 20, 2019. The current EPS contract expires in January 2020.

Mr. Wilborn updated that final shipments of waste from Clean Slate III were delivered to the Area 3 Radioactive Waste Management Site (RWMS) on August 29, 2019. A total of 457 shipments transported 916 packages containing approximately 225,000 cubic feet of waste that included soil, concrete, and rebar. Once the final Closure Report is approved (anticipated by the end of the calendar year), environmental corrective actions at historically-contaminated soils sites on the NNSS and Nevada Test and Training Range (NTTR) will be complete.

Regarding the Underground Test Area (UGTA) Activity, Mr. Wilborn shared the following: the final Yucca Flat/Climax Mine Model Evaluation Report was approved, the Yucca Flat/Climax Mine transition to the Closure Report stage was approved, the draft Closure Report for Rainier Mesa/Shoshone Mountain was submitted for review, and five (5) wells located on the NTTR south of Pahute Mesa were sampled.

Mr. Wilborn reported on a new item regarding a waste profile for Classified Gaseous Diffusion Plant converters that originated from decommissioning activities at the Portsmouth, OH plant and the K-25 plant in Oak Ridge, TN. The converters were shipped to Paducah to be used as spares. The preliminary planning indicates the estimated volume is 1.27 million cubic feet with an over-dimensional size of 13 x 24.5 feet and an overweight of 66,000 – 72,000 pounds per shipment. The shipments will occur in two different phases. The first phase is nonfissile waste that will be transported in 12 shipments over a year or about one shipment per month. The second phase will consist of approximately 500 shipments, 120 are fissile waste, which will occur over multiple years until completed. (Note: the second phase is in the planning stages only. No profile has been submitted and shipments have not been authorized.)

Mr. Wilborn updated on the expansion for the western section of the Area 5 Radioactive Waste Management Complex (RWMC) that the berm and channel construction is continuing on the southern portion with the northern portion completed. The subcontract for the Resource Conservation Recovery Act (RCRA) well #4 was awarded in September 2019 with construction planned for completion by the end of calendar year (CY) 2019. The last container of mixed low-level waste (MLLW) was disposed in Cell 18 on August 29, 2019. An additional 125,000 cubic feet of waste was disposed through the use of specialized rigging equipment that improved waste placement efficiency. Closure activities will begin in October 2019.

Mr. Wilborn updated on the Supplemental Environmental Project. The visual verification task is ongoing with 46 low-level waste (LLW) visual verifications at 14 sites performed to date in FY 2019. The real-time radiography task was completed several months ahead of schedule with 103 containers examined through September 10, 2019 with the commitment of 100 containers. The Radioactive Waste Acceptance Program (RWAP) continues working the peer review task of 22 waste profiles as part of the deep dive of the Profile Assessment Task Review.

Mr. Wilborn mentioned recent events/stakeholders meetings (time period is July 17, 2019 - present) conducted by EM Nevada Program staff:

- July 24 – NSSAB chairs visit to observe Northern New Mexico Advisory Board meeting
- July 31-August 2 – Clark County School District New Teacher Orientation outreach event
- August 1 – NNSS tour for Secretary Perry, Governor Sisolak, and the Governor's staff, including an extended visit to the Area 5 RWMC
- August 7 – LLW Stakeholders Forum meeting in Pahrump, NV
- August 21 – NSSAB observation of RWAP LLW visual verification at Los Alamos National Laboratory (LANL)
- September 3-5 – RadWaste Summit in Las Vegas, NV
- September 9-13 – National Cleanup Workshop in Arlington, VA

Mr. Wilborn continued with upcoming presentations/meetings/conferences (time period is September 18 – December 31, 2019) of interest to be conducted by the EM Nevada Program:

- October 3 – NSSAB FY 2020 work plan tour
- October 10 – “Ant farm” groundwater demonstration for students at Beatty High School
- October 17 – Groundwater Open House at the community center in Beatty, NV
- October 28-30 – EM Site-Specific Advisory Board (SSAB) National Chairs meeting in Sun Valley, ID
- November 6 – LLW Stakeholders Forum meeting in Las Vegas, NV
- November 13 – Intergovernmental Liaison meeting
- November 13 – Full Board NSSAB meeting
- November 19-21 – 2019 Intergovernmental Meeting in Nashville, TN

Mr. Wilborn ended with an update regarding the Y-12 waste issue. A recently completed safety evaluation conducted on the NNSS radioactive waste disposal facility concluded that the disposed waste poses no risk to the public, personnel, environment, or facilities. A determination has not been made whether the waste will be moved or remain in place.

Consolidated Nuclear Services, LLC (CNS), the contractor to Y-12, prepared a waste characterization analysis of the Y-12 waste and concluded that it is not a hazardous waste regulated by RCRA. Although, there is an issue with noncompliance with the NNSS Waste

Acceptance Criteria (WAC) as the 33 containers of waste from Y-12 contain small volumes of pressurized gas in the squibs that violates NNSSWAC Section 3.1.7, Gases. In response to the NNSSWAC noncompliance, CNS submitted a corrective action plan (CAP) to RWAP on September 9, 2019, that is currently under review by the NNSS RWAP Team and NDEP. Shipments from CNS Y-12 to the NNSS will not resume until the CAP is accepted and the required actions are completed and validated by RWAP that demonstrates that the waste characterization program is strengthened for preventing recurrence of this issue.

In regard to the Y-12 waste issue, Mr. Wilborn reported on the following stakeholder activities:

- A tour of the Area 5 RWMC was provided to Governor Steve Sisolak and his staff on August 1, 2019 with Secretary Rick Perry, Deputy Secretary Dan Brouillette, and NNSA Administrator Lisa Gordon-Hagerty in attendance.
- NDEP visited Y-12 on August 15 and September 10, 2019 during which time pertinent classified access was provided and information discussed.
- NNSA Administrator Gordon-Hagerty called Governor Sisolak and the Nevada Congressional Delegation on August 23, 2019 to share follow-up information.
- Formal responses to technical information requests from NDEP were provided on August 23 and 30, 2019. This is in addition to the ongoing exchange of information as weekly meetings with NDEP have been formally established.
- Darwin Morgan, NNSA/NFO Public Affairs Director, provided an update to local intergovernmental stakeholders (CGTO, Clark and Nye counties, City of Las Vegas, and NSSAB chairs) via phone calls on August 26 and 28, 2019.

Mr. Wilborn commented that follow-on actions for lessons learned through completion and evaluation of the CNS investigation and CAP, along with the results of assessments that have been and continue to be performed, will be shared across the DOE and NNSA complex (including the NNSS) to strengthen waste characterization and disposition processes and prevent recurrence of similar events. RWAP has implemented enhanced verification lines of inquiry for onsite waste profile reviews during facility evaluations for profiles with classified components at multiple generators.

In conclusion, Mr. Wilborn noted that CNS also manages the Pantex waste certification program, and Pantex shipments are also suspended as a precautionary measure. CNS Pantex provided a report documenting its internal program review to support proposed restart of shipments that RWAP is currently reviewing. RWAP is tentatively planning to visit Pantex in October 2019 to verify acceptability to restart shipments and to conduct the annual onsite review.

NNSA Update (*Darwin Morgan, NNSA*)

Mr. Darwin Morgan updated that experimental programs at the NNSS are coming to a close for FY 2019. The JASPER facility conducted 23 subcritical experiments in FY 2019. Twenty of these experiments were preparatory with the remaining three utilizing nuclear material. Planning for preparatory events at JASPER for the next experiment to be conducted in FY 2020 is currently underway. More information on the JASPER facility will be provided to the NSSAB during its annual work plan tour on October 3, 2019. Expanding on the tour for Governor Sisolak, Mr. Morgan added that the Governor also toured the Device Assembly Facility and the U1a Facility in

order to gain a better understanding of the national security mission work at the NNSS. He noted the challenge of hiring skilled laborers at the NNSS due to the increased construction in Las Vegas. MSTs, the management and operating contractor for the NNSS, is considering development of a program to provide apprenticeships at the NNSS. Mr. Morgan concluded that there will be increased security at the NNSS for the Storm Area 51 Event as a precaution.

Liaison Updates

CGTO (*Richard Arnold*)

Liaison Richard Arnold updated on the Tribal Revegetation Project at the Area 5 RWMC that monthly monitoring of the test plots continued, and there has been considerable progress. In August 2019, a monthly meeting with NDEP and EM Nevada Program staff was held to discuss metrics and a consensus on a path forward. Additional discussions will be held with NDEP, and a formal letter from NDEP to DOE providing additional guidance is forthcoming. The Tribal Revegetation Committee will continue the revegetation process for another year. Three different treatments have been conducted on the soil. Soil samples have been taken and preliminary results indicate the presence of microbes not normally found in one particular area. A lessons learned is to conduct soil sampling at the beginning of future revegetation efforts. Some of the cages for protecting the plants from animals have been removed as the plants have outgrown them. There have been positive results from both the broadcast seeds and the transplants. Liaison Arnold reported that he attended the RadWaste Summit and facilitated a roundtable discussion on tribal perspectives regarding interactions with the Department. During the discussion, it was learned from the Canadian Nuclear Society that several First Nation Tribes viewed the YouTube video on the revegetation project, and he received comments that the tribes were very intrigued with the project and the positive collaboration between the tribes and DOE. Mr. Arnold noted that a CGTO planning committee comprised of six tribal representatives meet to interface with DOE and NNSA on activities at the NNSS. A core group of the CGTO is also involved with DOE's Office of Nuclear Energy regarding radioactive waste transportation. Mr. Arnold noted that the CGTO is also involved with a Rail Routing Working Group. He will be attending the Tribal Energy Summit on September 24-26, 2019 in Washington, DC, and participating and facilitating meetings of the State and Tribal Working Group at the Intergovernmental Meeting in Nashville, TN in November 2019.

Esmeralda County Commission (*Delon Winsor*)

Liaison Delon Winsor reported that the Albemarle Lithium Mine is undergoing a drilling program. The Gemfield Mine outside of Goldfield, NV has secured permits. They are in the process of moving about 2.5 miles of road, including power and water lines and fiber optics. This construction is expected to be completed in six months and will not impede traffic as the road will go around Goldfield, NV. There a couple of other mines in Esmeralda County that are currently going through the process to become operational.

Lincoln County Commission (*Jared Brackenbury*)

Liaison Jared Brackenbury has been in contact with the NSSAB Office and Lincoln County resources are currently focused on the Storm Area 51 Event.

NCEM (*Scott Lewis*)

The Nye County Public Information Officer submitted a written report that the Storm Area 51 Event has necessitated the need to activate Nye County's Emergency Operations Center. Lincoln County and the State Emergency Operations Center also has been activated. The operational

period is from September 18 - 22, 2019. For more information, please follow your choice of media outlets.

NWRPO (*Darrell Lacy*)

Liaison Darrell Lacy stated that the Storm Area 51 Event has received considerable attention at the county level by both the commission and emergency responders who are currently involved with the State Emergency Operations Center. He noted that NWRPO staff attended the RadWaste Summit and the EM National Cleanup Workshop in Washington, DC. Liaison Lacy reported that John Klenke is making preparations to conduct sampling of 20 wells under the Tritium Sampling and Monitoring Program (TSaMP). The TSaMP is a cooperative agreement with the DOE to conduct water sampling for tritium downgradient of the NNSS. Results are published annually in the NNSS Environmental Report:

www.nnss.gov/pages/resources/library/NNSSER.html .

NDEP (*Christine Andres*)

Liaison Christine Andres provided perspectives from the State of Nevada on the Y-12 waste issue. There have been a number of different requests for information since the Y-12 incident with information received almost daily or at least weekly. NDEP is not ready to provide any conclusions until all the information is reviewed, and she will update the NSSAB as the review progresses. Liaison Andres reported that NDEP provided comments on the draft Closure Report for Rainier Mesa and will be meeting next week with EM Nevada Program staff for comment resolution. NDEP will also meet with EM Nevada Program staff on Yucca Flat that is scheduled for closure early next fiscal year. Pahute Mesa will be the last UGTA corrective action unit undergoing remediation. For Clean Slate III, NDEP anticipates receiving the draft Closure Report for review. Liaison Andres met with the director for DOE's Office of Legacy Management (OLM) regarding the transfer of the Tonopah Test Range sites to OLM by September 2020. She is in the process of formalizing a letter to extend the deadline for the revegetation effort to March 31, 2021, in order to provide the Tribal Revegetation Committee the opportunity to conduct monitoring of the progress of the project for three years and for the Desert Research Institute and the Portland State University sufficient time to analyze the data and document the results that includes recommendations for revegetation on the remainder of the 92-Acre Area at the Area 5 RWMC.

NPS (*Richard Friese*)

Liaison Richard Friese noted that two more serious accidents have occurred on California State Route 190 in the last six months. He thanked Robert Boehlecke, EM Nevada Program Manager, for his response to a letter of concern from the NPS regarding truck drivers using this route as a shortcut to the NNSS. Liaison Friese related that the NPS appreciated him relaying these concerns to the waste generators. Scotty's Castle and Bonnie Claire Road is projected to open in September 2021. Liaison Friese concluded that this is his last meeting as a full liaison, but he looks forward to continuing involvement with the NSSAB as a limited liaison.

LLW Visual Verification (Work Plan #5) (*Frank Bonesteel, Chair*)

For this work plan item, NSSAB members observed the RWAP Team conducting LLW visual verifications in order to provide recommendations on how these visual verifications could be enhanced. Member Anthony Graham and Vice-Chair Steve Rosenbaum observed a visual verification at a NNSS generator in July 2019, and Chair Bonesteel and Vice-Chair Rosenbaum observed visual verifications at a Los Alamos National Laboratory (LANL) generator in August 2019.

Member Graham reported that he observed a visual verification at the NNSS involving a transfer of tritium emergency exit signs from a temporary storage container inside a warehouse to a permanent container later to be disposed at the Area 5 RWMC. A full list of the items including serial numbers were included, and manufacturing details were provided with each sign inspected to ensure that it matched the description. Member Graham continued that the process moved quickly and efficiently, although personnel had to retrieve signs from the bottom of the temporary container. From a lifting perspective, this could potentially result in injuries. The exit signs were stored in a locked warehouse behind a rope with warning sign, although his preference would be that these items be secured in locked cages within the warehouse. Vice-Chair Rosenbaum agreed that the process was very comprehensive and went smoothly. The rad-control program was thorough with the use of rad wipes and meter swipes.

Vice-Chair Rosenbaum reported that he observed two LLW visual verifications at a LANL generator. During the first visual verification, waste from a temporary container was transferred to a permanent container that remained at the transfer point until filled. He had a question of process as the lid was placed on the temporary container without knowledge if any rad checks had been conducted. Vice-Chair Rosenbaum explained that he was informed that swipes were conducted when he was not present. The second visual verification was an open, secured yard with controlled entry that contained waste and usage of hazardous materials. Gaskets used for sealing the containers have a one-year lifecycle, and the expiration date was hand-written informally on one of the forms. He had a question of process for why this was not a formal procedure. Vice-Chair Rosenbaum continued that new staff were present. Experienced staff demonstrated the specifications for torqueing and ensuring the covers were tight, then new staff repeated the process for training purposes. He also observed that all the waste was contained in bags that received a rad-control check. There were no identifying numbers on the bags to indicate where the waste originated, although it was explained that it was an approved waste practice. Chair Bonesteel added that the gaskets were not fitted to the container lids. Technicians were required to size and install the gaskets on the lid. He noted that manufacturer pre-cut gaskets and modern equipment to install would make the process more efficient.

After all Board questions were answered, the following suggestions for this work plan item were discussed:

- Continue performing visual verifications by the RWAP to ensure that engineering and physical work is done properly at generator site.
- Consider using modern equipment to assist with sealing containers at all generator sites as a best management practice.

Member Dick Gardner made a motion to include the preceding items in a recommendation letter to the DOE. The motion was seconded and passed unanimously.

Release of Radiological Control at the Operation Roller Coaster Sites (*Bill Wilborn, DOE*)

- **Background**
 - In May/June of 1963, the United Kingdom, the U.S. Department of Defense, and the Atomic Energy Commission conducted tests at four (4) locations on the Nevada Test and Training Range as part of Operation Roller Coaster:
 - Double Tracks

- Clean Slate I
- Clean Slate II
- Clean Slate III
- **Current Use**
 - The U.S. Air Force (USAF) and others perform work in the area as it is an active test and training range
 - Remote desert environment
 - No public access
 - Access to sites will be restricted for the foreseeable future
- **Current Conditions**
 - Remote from the NNSS (more than 210 miles from Mercury via public roads)
 - Undergone extensive remediation to a level less than the 25 millirem/year (mrem/yr) dose for clean closure under the current Federal Facility Agreement and Consent Order (FFACO)
 - Requires monitoring to demonstrate compliance with 10 Code of Federal Regulations (CFR) 835 Occupational Radiation Protection Program (inspection and maintenance)
 - DOE proposes to release Operation Roller Coaster sites from radiological control
- **Purpose and Benefits of Radiological Release**
 - Removes impediments to use of the area by the USAF or other national security activities
 - Reduces long-term Federal liability
- **DOE Order 458.1**
 - This order defines DOE's process for the release of radiological controls
 - Ensures exposures are as low as reasonably achievable (ALARA) and the environment is protected
 - Requires notification of the public
 - No action by the public is required
- **Approach**
 - DOE Order 458.1 requires that residual radioactivity is not present in a dose greater than 25 mrem/yr
 - Site-specific conservative assumption for dose is that the potential receptor is a resident farmer
 - Past characterizations show that Americium-241 and Plutonium-239/240 account for over 95 percent of the dose
 - Compliance is accomplished by a final status survey with verification by an independent organization that concentrations do not exceed authorized limits
- **Implementation Strategy**
 - Conduct final status survey
 - Perform independent verification
 - Approval by DOE of authorized limits and final status survey report
 - Removal of radiological controls
 - Approval by DOE of real property clearance

NOTE: Even after the radiological release process, the Operation Roller Coaster sites will remain in government control

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

- After the radiological release process is complete, there will not be any land use restrictions on USAF activities.

- Soils samples that are representative of the area will be taken to ensure that the dose is not great than 25 mrem/yr.
- The area will be graded over and will not be revegetated.
- There are no issues with tritium with the Operation Roller Coaster sites.
- The Operation Roller Coaster sites have been clean closed under the FFACO; therefore these sites will not be actively monitored and managed, although the responsibility for the records will be turned over to the OLM.

FY 2020 Chair/Vice-Chair Election

Chair Bonesteel noted that leadership is an important component of the Board. During the interview process, each member was informed that there could be opportunities to move up to a leadership role in the NSSAB. Chair Bonesteel asked members if they would consider serving as the Vice-Chair. Member Dick Gardner volunteered to serve as Vice-Chair and Chair Bonesteel volunteered to serve as Chair for FY 2020. As both candidates were unopposed, Frank Bonesteel will be Chair and Dick Gardner will be Vice-Chair for FY 2020. DDFO Snyder thanked Chair Bonesteel and Vice-Chair Rosenbaum for their leadership during the last fiscal year.

Other NSSAB Business (*Frank Bonesteel, Chair*)

Member DeWitt reported on the RadWaste Summit 2019 that he attended on September 3-5, 2019 in Henderson, Nevada. He reported that approximately 95% of the attendees were current contractors or contractors interested in procuring contracts with DOE, U.S. Nuclear Regulatory Commission (NRC), and/or other Federal agencies. His overall synopsis is that the cleanup at the NNSS is relatively small compared to other DOE sites (such as Hanford, Oak Ridge, and Idaho), because of the materials manufactured at these sites for the Manhattan Project. Member DeWitt continued that the tone of the conference was that nothing new regarding Yucca Mountain was expected until after the presidential election in November 2020. The financial aspect of the DOE seemed to be on sound footing for the current and next fiscal year. An item that seems to delay some cleanup efforts across the country are the differences in regulations and rules established by different governmental entities, such as, local, state, and federal (DOE, NRC, U.S. Department of Defense, U.S. Army Corps of Engineers). He noted that the State of Nevada is opposed to Yucca Mountain for storage of high-level waste while other states, such as Texas and New Mexico, are expressing interest. Member DeWitt reported that he attended a presentation on Tribal Strategies and Opportunities in Radioactive Waste by Liaison Arnold. DDFO Snyder asked whether future attendance at the RadWaste Summit was beneficial for NSSAB members if funding was available. Members DeWitt, Richard Stephans, and Rosenbaum all agreed that the RadWaste Summit is a beneficial conference for members to attend in the future.

On October 28-30, 2019, Mr. Rosenbaum and Member Donald Neill will be attending the EM SSAB National Chairs' Meeting in Sun Valley, Idaho as Chair Bonesteel has a prior commitment. During the meeting, there will be an opportunity for Mr. Rosenbaum to make a five-minute round robin presentation to the Assistant Secretary of EM's designee, Todd Schrader who currently serves as EM-2, highlighting the board's top interest/concern and/or the board's accomplishments.

Chair Bonesteel initiated discussion on Nevada's round robin slide from the following topics suggested by members:

- Transportation – concern with encroachment of population along I-15; review current routing; look at census to see if rerouting needed
- Infrastructure improvement – establish a working group (U.S. Department of Transportation, DOE, Homeland Security, etc.); there was discussion of the lack of cell phone service for about 30 miles on State Route 127, as an example
- Brain drain – lack of qualified/quantified employees at the NNSS because of competing construction in the area; emphasis on completion with EM Nevada Program in order to have enough employees to complete its mission
- Groundwater issues – ongoing concern, continue monitoring, additional wells with continuing budget
- NNSS only site to receive LLW from entire DOE complex

Member Graham made a motion to focus on the issues for brain drain and transportation/ infrastructure combined. The motion was seconded by Vice-Chair Gardner and passed by a majority vote. Members Rosenbaum and Stephans volunteered to develop the round robin slide and narrative for the round robin by Monday, October 7, 2019. After NSSAB Office review, the slide and narrative will be emailed to the NSSAB for comment in order to submit to the EM SSAB Office by Thursday, October 17, 2019.

An opening for a member to represent the NSSAB at the LLW Stakeholder Forum was discussed for FY 2020. The LLW Stakeholders Forum is a group that meets on a quarterly basis that provides attendees an opportunity to share and discuss information related to the shipment and disposal of LLW at the NNSS. DDFO Snyder reminded that there is DOE travel reimbursement available for one member to attend each LLW Stakeholder Forum meeting. The NSSAB representative is tasked with attending, taking notes, and providing a written report to be distributed to the NSSAB. Member Stephans expressed interest in the position for the Las Vegas meetings and Member DeWitt expressed interest in the position for the Pahrump meetings with Members Dina Williamson-Erdag, Rosenbaum, and Chair Bonesteel as alternates.

Chair Bonesteel reported on the EM Cleanup Workshop that he attended in Alexandria, VA on September 10-12, 2019. As part of his presentation, he showed a video titled, *The Office of Environmental Management Story*, developed for EM's 30th Anniversary that can be viewed at https://www.youtube.com/watch?v=D7U_w9YmbQ0&feature=youtu.be

Six letters were provided to Board members for informational purposes:

- NSSAB Recommendation for Approach for Pahute Mesa Completion (Work Plan Item #2) – dated April 24, 2019
- DOE Response to NSSAB Recommendation for Approach for Pahute Mesa Completion (Work Plan Item #2) – dated July 18, 2019
- NSSAB Recommendation for Liaison Participation – dated July 17, 2019
- DOE Response to NSSAB Recommendation for Liaison Participation – dated August 14, 2019
- NSSAB Recommendation for Pahute Mesa Groundwater Sampling Well Prioritization (Work Plan Item #1) – dated July 17, 2019
- DOE Response to NSSAB Recommendation for Pahute Mesa Groundwater Sampling Well Prioritization (Work Plan Item #1) – dated August 21, 2019

Facilitator Ulmer informed the Board that Hepburn Klemm recently submitted his resignation as a member of the NSSAB.

Long-Term Monitoring FY 2019 Wrap Up and FY 2020 Planned Activities (*Tiffany Gamero, DOE*)

- **Background**
 - Long-Term Monitoring sites include Corrective Action Sites that are now closed under the FFACO and require some form of reporting, maintenance, monitoring, or inspections
 - Closed Soils Sites
 - Closed Industrial Sites
 - Closed UGTA Sites
- **Long-Term Monitoring FY 2019 Wrap Up**
 - Planned: Submit RCRA, Non-RCRA, and TTR Post-Closure Reports to NDEP
 - Status – no significant items were identified:
 - RCRA Post-Closure Report - submitted May 2019
 - TTR Post-Closure Report - submitted June 2019
 - Non-RCRA Post-Closure Report - submitted June 2019
 - Planned: Conduct quarterly, biannual, and annual monitoring at closed sites
 - Status: All required monitoring was conducted in FY 2019
 - NNSS and RCRA sites in first quarter
 - RCRA sites in second quarter
 - TTR and RCRA sites in third quarter
 - RCRA sites in fourth quarter
 - Frenchman Flat:
 - Planned: Conduct annual closure sampling
 - Status: Completed throughout FY 2019; results consistent with modeling no concerns identified
 - Planned: Submit calendar year (CY) 2018 monitoring report
 - Status: Submitted June 2019; monitoring did not identify any concerns
 - Planned: Continue tribal evaluation of Corrective Action Unit (CAU) 111 revegetation test plots through end of FY 2019; EM Nevada Program and NDEP will then discuss path forward
 - Status: Monthly monitoring completed throughout FY 2019
- **Long-Term Monitoring FY 2020 Planned Activities**
 - Submit RCRA, Non-RCRA, and TTR Post-Closure Reports to NDEP
 - Conduct quarterly, bi-annual, and annual monitoring at closed sites
 - Determine path forward for CAU 111 revegetation
 - Conduct Frenchman Flat annual CY 2020 closure monitoring
 - Submit Frenchman Flat CY 2019 closure monitoring report
 - Conduct Rainier Mesa annual CY 2020 closure monitoring

There were no questions regarding the Long-term Monitoring FY 2019 Wrap Up and FY 2020 Planned Activities briefing.

Soils FY 2019 Wrap Up and FY 2020 Planned Activities (*Tiffany Gamero, DOE*)

- **Soils Background**
 - Atmospheric nuclear weapons tests, nuclear safety experiments, and evaluation tests for peaceful uses of nuclear explosives conducted at the NNSS and the Nevada Test and Training Range resulted in radioactive contamination of surface and near surface soils
 - Fenced and/or posted radiation/contamination area of the NNSS is less than one percent
 - 147 Soils sites have been closed in accordance with the FFACO
 - One Soils site remains
- **Soils FY 2019 Wrap Up**
 - Clean Slate III Plutonium Dispersion (CAU 414)
 - Planned: Complete soil removal; estimate 217,000 cubic feet (ft³)
 - Status: Over 224,000 ft³ of soil removal generated and packaged into 916 containers as of August 30, 2019
 - Planned: Complete waste shipments from Tonopah Test Range to NNSS; estimated 450 shipments
 - Status: 457 waste shipments completed and shipped to the Area 3 RWMS as of August 30, 2019
 - Planned: Submit the final Closure Report (CR) to NDEP
 - Status: Due to NDEP in December 2019
 - Miscellaneous Radiological Sites and Debris (CAU 576)
 - Planned: Submit the final Corrective Action Decision Document/CR to NDEP
 - Status: Approved by NDEP in February 2019
- **Soils FY 2020 Planned Activities**
 - Double Tracks (CAU 411) and Clean Slate I (CAU 412)
 - Planned: Conduct final confirmation radiological surveys ~November 2019
 - Clean Slate II (CAU 413) and Clean Slate III (CAU 414)
 - Planned: Revegetation of disturbed areas ~Fall 2019
 - Planned: Conduct final confirmation radiological surveys ~ Spring 2020

There were no questions regarding the Soils FY 2019 Wrap Up and FY 2020 Planned Activities briefing.

Industrial Sites FY 2020 Planned Activities (*Tiffany Gamero, DOE*)

- **Industrial Sites FY 2020 Planned Activities**
 - Test Cell C Ancillary Building and Structures – originally supported Nuclear Rocket Development Station activities on the NNSS
 - Complete cultural resources activities in conjunction with Nevada State Historic Preservation Office
- **Proposed FY 2020 NSSAB Work Plan Item**
 - Test Cell C Path Forward

In response to a Board question, the following clarification was provided:

- The Engine Maintenance Assembly and Disassembly (EMAD) facility is still one of the industrial sites that is remaining to be closed under the FFACO. Almost ten years ago, the

NSSAB recommended that the EMAD facility be demolished to slab. The EM Nevada Program does intend to demolish to slab, but it is not on the schedule for FY 2020.

UGTA (Groundwater) FY 2019 Wrap Up and FY 2020 Planned Activities (*John Myers, DOE*)

- **UGTA CAUs**

- There are five CAUs that make up the UGTA activity on the NNSS:
 - Frenchman Flat (CAU 98) – COMPLETE (in closure/long-term monitoring)
 - Yucca Flat/Climax Mine (CAU 97)
 - Rainier Mesa/Shoshone Mountain (CAU 99)
 - Central Pahute Mesa* (CAU 101)
 - Western Pahute Mesa * (CAU 102)

*Western and Central Pahute Mesa are managed as one entity

- **UGTA FY 2019 Wrap Up**

- Yucca Flat/Climax Mine (YF/CM)
 - Planned: Conduct final Internal Peer Reviews
 - Status: Completed in April 2019
 - Planned: Complete any needed flow and transport simulations
 - Status: Completed in February 2019
 - Planned: Complete Model Evaluation Report
 - Status: Approved by NDEP in August 2019
- Rainier Mesa/Shoshone Mountain (RM/SM)
 - Planned: Document supplemental analysis based on the External Peer Review report
 - Status: Approved by NDEP in June 2019
 - Planned: Complete the Closure Report
 - Status: Submitted to NDEP in August 2019 for approval
- Pahute Mesa
 - Planned: Document considerations to a more pragmatic closure approach and present to NDEP
 - Status: Submitted to NDEP in June 2019; currently addressing NDEP comments
 - Planned: Select potential drilling locations
 - Status: Identified draft criteria to select drilling locations

- **UGTA FY 2019 Additional Activities**

- As of July 13, 2019, collected groundwater samples from 23 zones in 19 wells on the NNSS and NTTR
- Continued funding and support for Nye County Tritium Sampling and Monitoring Program (TSaMP) and internal peer review membership
 - No detectable tritium in TSaMP samples to date

- **FY 2018 NSSAB Work Plan Items**

- Provide a recommendation on if the offsite groundwater communication plan is supported by the NSSAB and/or how it could be improved
 - NSSAB Recommendation – November 2018
 - EM Nevada Program Response – December 2018
- Provide a recommendation on if the more pragmatic approach is supported and how it could be improved
 - NSSAB Recommendation – April 2019
 - EM Nevada Program Response – July 2019

- Continue to work with NDEP toward implementation of pragmatic approach
- Provide a recommendation on prioritizing the factors used by the EM Nevada Program for proposed well locations in Pahute Mesa
 - NSSAB Recommendation – July 2019
 - EM Nevada Program Response – August 2019
- **UGTA FY 2020 Planned Activities**
 - YF/CM – the model evaluation phase is complete and EM has received approval to enter the closure state; FY 2020 activities will be:
 - Negotiate regulatory and use restriction boundaries
 - Submit Closure Report
 - RM/SM – Draft Closure Report has been submitted for NDEP review; FY 2020 activities will be:
 - Complete final Closure Report
 - Implement closure monitoring requirements
 - Pahute Mesa – Phase II data analysis and evaluation continues; FY 2020 activity will be:
 - Begin development of Phase II flow and transport models
 - Collect groundwater samples from nine (9) wells on the NNSS
 - Conduct Groundwater Open House in Beatty, NV on Thursday, October 17, 2019

There were no questions regarding the UGTA (Groundwater) FY 2019 Wrap Up and FY 2020 Planned Activities briefing.

Waste Management FY 2019 Wrap Up and FY 2020 Planned Activities (*Jhon Carilli, DOE*)

- **Waste Management FY 2019 Wrap Up**
 - Planned: Safely dispose ~ 1.4 million ft³ of forecasted waste at the NNSS
 - Status: As of June 30, 2019, the NNSS safely disposed of over 756,900 ft³ of waste and the total volume revised projections are ~ 1.1 million ft³ of waste by the end of FY 2019
 - Planned: Submit annual Performance Assessment Summary Report to the LLW Federal Review Group
 - Status: Submitted in March 2019; no significant changes from past trends
 - Planned: Prepare for new cell construction on western section of Area 5 Radioactive Waste Management Complex (RWMC) at the NNSS
 - Status: Flood control berm and channel construction on northern portion complete and continuing on the southern portion
 - Planned: Resume Area 3 RWMS operations to make use of existing capacity for Clean Slate III waste disposal
 - Status: Began waste disposal activities in October 2018 and completed in August 2019
 - Planned: Conduct Radioactive Waste Acceptance Program (RWAP) facility evaluations
 - Status: RWAP conducted 24 facility evaluations
 - NDEP participated in 19 of these facility evaluations
 - Planned: Review potential enhancements to waste verification strategy
 - Status: The EM Nevada Program is drafting a verification strategy report
 - Planned: Complete Supplemental Environmental Project (SEP) tasks related to NDEP's Notice of Violation

- Status: All physical work associated with the three (3) tasks included in the SEP will be completed by the end of FY 2019
 - Planned: Conduct visual and real-time radiography (RTR) verifications
 - Status: As of August 30, 2019, 100 RTR examinations (100 required by SEP) and 46 LLW visual verifications (40 required by SEP) have been performed
 - Planned: Continue funding and support for the Emergency Preparedness Working Group (EPWG) grant
 - Status: Provided over \$14.8 million in funding to Clark, Elko, Esmeralda, Lincoln, Nye, and White Pine counties since FY 2000
- **Waste Management FY 2019 Additional Activity**
 - Location of new monitoring well sited south of the Area 5 RWMC
 - NSSAB provided a recommendation in May 2018
- **FY 2019 NSSAB Work Plan Items**
 - Provide a recommendation for how RWAP's visual verifications could be enhanced
 - NSSAB members observed RWAP LLW Visual Verification of NNSS generator – July 2019
 - NSSAB members observed RWAP Visual Verification of Los Alamos generator – August 2019
 - NSSAB discussion and recommendation planned for tonight
 - Provide a recommendation regarding how the risk-informed audit determination selection could be improved
 - NSSAB Recommendation – March 2019
 - EM Nevada Program Response – June 2019
 - Update: RWAP is updating risk-informed audit determination selection criteria using NSSAB's recommendation
- **Waste Management FY 2020 Planned Activities**
 - Safely dispose over 1.4 million ft³ of forecasted waste at the NNSS
 - Submit annual Performance Assessment Summary Report to the LLW Federal Review Group
 - Conduct RWAP facility evaluations
 - Continue funding and support for the EPWG grant
 - Complete flood control berm and channel on western section of Area 5 RWMC
 - Complete design of new cell on western section of Area 5 RWMC and potentially begin construction
 - Begin closure of MLLW Cell 18 with a closure cap and initial revegetation
 - Complete construction of new monitoring well south of the Area 5 RWMC
- **Proposed FY 2020 NSSAB Work Plan Item**
 - Waste Verification Strategy

There were no questions regarding the Waste Management FY 2019 Wrap Up and FY 2020 Planned Activities briefing.

EM Work Plan Status FY 2019 Wrap Up and FY 2020 Planned Activities *(Bill Wilborn, DOE)*

- **FY 2019 NSSAB Work Plan Items**
 - Review FY 2021 baseline funding needs and provide a recommendation to the DOE prioritizing the work by activity
 - NSSAB Recommendation – April 2019
 - EM Nevada Program Response to NSSAB – April 2019

- EM Nevada Program Presented Draft Budget Briefing to EM HQ – June 2019
- Final DOE Budget to Office of Management and Budget– TBD ~ September 2019
- President’s Budget to Congress – TBD ~ February 2020
- **Proposed FY 2020 NSSAB Work Plan Items**
 - NSSAB Long-Term Strategy
 - FY 2020 Baseline Prioritization

There were no questions regarding the EM Work Plan Status FY 2019 Wrap Up and FY 2020 Planned Activities briefing.

DDFO Snyder asked the NSSAB whether the FY Wrap Up and FY Planned Activities briefings that were just presented were helpful. The overall opinion from those in attendance is that these briefings are useful in their roles as an NSSAB member. Member Williamson-Erdag requested that the work plan be included in the briefings for reference.

Update on Evaluation Results for FY 2019 (Kelly Snyder, DDFO)

DDFO Snyder provided a synopsis of the evaluation results for FY 2019. She thanked the members that filled out the evaluation with 13 of the 17 members responding. DDFO Snyder noted that overwhelmingly the members wanted to keep the start time at 4 p.m. for Full Board meetings. She continued that 78 percent of the members prefer the current meeting format of completing all agenda items before adjournment. For the various information sources, members felt that the majority were useful. The least useful information sources were the websites and the travel and conference updates, but even those had 50 and 75 percent support, respectively. Regarding the comfort level for the type of information given during briefings, 70 percent of the members thought the information was at the right level with none responding that the information was too technical. The survey included an open-ended question for suggestions on how to improve the NSSAB experience. These suggestions will be reviewed by the NSSAB Office for implementation. One suggestion was to provide more takeaway materials for their communities. DDFO Snyder suggested that members review the fact sheets in the binder located at the welcome table or their orientation binder. These fact sheets are a good source of information on EM activities that can be taken back to their communities. DDFO Snyder touched on a suggestion for getting out the meeting information for review prior to the Full Board meetings. The final reviewers are from EM Headquarters that generally approve the briefings a day or two before the meeting, which are then emailed out for NSSAB preparation. The NSSAB Office will continue to strive to get briefings out earlier prior to NSSAB meetings in the future.

FY 2020 Work Plan Development

DOE FY 2020 Proposed NSSAB Work Plan Tasks:

The EM Nevada Program proposed the following four work plan items related to EM activities planned for FY 2020 for the NSSAB’s consideration. DOE staff explained and answered Board questions for each of the proposed work plan items and the recommendation associated with each task.

1. From a community perspective, the NSSAB will provide a recommendation on the potential verification strategies identified and/or how these strategies may be implemented.

2. From a community perspective, the NSSAB will provide a recommendation ranking the baseline activities for FY 2022.
3. From a community perspective, the NSSAB will provide a recommendation on the Department's planned end state for Test Cell C or how the plan could be improved.
4. From a community perspective, the NSSAB will develop a recommendation for how the NSSAB envisions its future role as the EM Nevada Program mission transitions to completion. This includes recommendations on the frequency of meetings, number of members, and overall community expectations.

Other NSSAB Task Input

Member Graham initiated discussion that a potential work plan item could be to provide a recommendation on the Department's planned end state for the EMAD facility or how the plan could be improved. Member Graham continued that the NSSAB provided a recommendation on the EMAD facility almost a decade ago, but communities change and that he would like to see a presentation with the current Board.

Member Williamson-Erdag brought forward a potential work plan item for the Board to continue review and receive updates on well testing results for Rainier Mesa and Pahute Mesa leading up to final closure on monitoring. DDFO Snyder reminded the Board that each work plan item needs to include the opportunity to provide a recommendation. Mr. Wilborn responded that the timing was not appropriate for Pahute Mesa as the CAU is still in early closure stages. Liaison Andres added that decisions have already been made for the Rainier Mesa CAU, although the Yucca Flat CAU could lend itself for a recommendation on the long-term monitoring network. After Board discussion, a potential work plan item was suggested regarding the Yucca Flat long-term monitoring network. DDFO Snyder stated that the UGTA subject matter experts (SMEs) would draft the verbiage for the recommendation and provide to the NSSAB.

After all Board discussion regarding potential work plan items was completed, the following were additional work plan items proposed by the NSSAB.

1. From a community perspective, the NSSAB will provide a recommendation to be determined by SMEs on the Yucca Flat Long-Term Monitoring Network.
2. From a community perspective, the NSSAB will provide a recommendation on the Department's planned end state for EMAD or how the plan could be improved.

Work plan item #2 is required by EM Headquarters; therefore, a vote was not taken on this item. After review, members voted on each task separately and the remaining five tasks received a majority vote.

After further Board dialogue, Member Stephans moved to approve the draft work plan recommendation letter to DOE with the preceding six work plan tasks. The motion was seconded and passed with a majority.

FY 2020 Meetings and Locations

Approval of Proposed Schedule

A proposed schedule was provided based on the timing of briefings and due dates for

recommendations included in the FY 2020 Work Plan. Member Rosenbaum made a motion that one of the meetings be held in Amargosa Valley, Nevada, subject to availability. The motion was seconded and passed with a majority.

The Full Board meeting schedule for FY 2020 as follows:

- Wednesday, November 13, 2019 – Las Vegas, Nevada starting at 4 p.m.
- Wednesday, January 15, 2020 – Pahrump, Nevada starting at 4 p.m.
- Wednesday, March 18, 2020 – Las Vegas, Nevada starting at 4 p.m.
- Wednesday, May 20, 2020 – Amargosa Valley, Nevada starting at 4 p.m.
- Wednesday, July 15, 2020 – Las Vegas, Nevada starting at 4 p.m.
- Wednesday, September 23, 2020 – Las Vegas, Nevada starting at 4 p.m.

Meeting Wrap-Up and Adjournment

Upcoming calendar of events:

- NSSAB Work Plan Tour of the NNSS – October 3, 2019
- Groundwater Open House in Beatty, Nevada – October 17, 2019 from 4-7 p.m.
- EM SSAB National Chairs Meeting in Sun Valley, Idaho – October 28-30, 2019
- LLW Stakeholder Forum in Las Vegas – November 6, 2019 from 1-3 p.m. (invite only)
- EM SSAB National Chairs Meeting in Las Vegas, NV – March 31 – April 2, 2020

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

Member Stephans moved that the meeting be adjourned. The motion was seconded and passed unanimously.

Meeting adjourned at 8:49 p.m.