



Nevada Site Specific Advisory Board

Full Board Meeting

**Frank Rogers Auditorium
755 E. Flamingo Road, Las Vegas, NV
5:00 p.m. – May 16, 2012**

- Members Present:** Kathleen Bienenstein (Chair), Daniel Coss, Thomas Fisher, Donna Hruska, Robert Johnson, Barry LiMarzi, John McGrail, Gregory Minden, Michael Moore, James Weeks, Walt Wegst (Vice-Chair)
- Members Absent:** Matthew Clapp, Arthur Goldsmith
- Liaisons Present:** Cielomina Gumabon (West Career and Technical Academy [WCTA]), John Klenke (Nye County), Phil Klevorick (Clark County), Justine Leavitt (WCTA), Tim Murphy (State of Nevada Division of Environmental Protection [NDEP]), Genne Nelson (U.S. National Park Service), Scott Wade (Department of Energy [DOE])
- U.S. Dept. of Energy (DOE):** Rob Boehlecke, Tiffany Lantow, Kelly Snyder (DDFO), Bill Wilborn
- Staff:** Irene Farnham, (Navarro-Intera [N-I]), Greg Ruskauff, N-I, Barbara Ulmer (Stoller)
- Public Present:** Christine Andres (NDEP), Jon Barth (Boulder City), David Bender (Las Vegas), Michael Cipra (U.S. National Park Service), Michael Cronin (Las Vegas), Gary Hollis (Nye County), Janice Keiserman (Henderson), Dr. Leonard Kreisler (Las Vegas), Darrell Lacy (Nye County), John Pollet, Catherine Schell (Las Vegas), William Sears (Henderson)

Agenda Review

An addition was made to the agenda under "Other NSSAB Business" to include "Environmental Management Site-Specific Advisory Board (EM SSAB) Recommendation." Member Daniel Coss moved to accept the agenda as amended. The motion was seconded and passed unanimously.

Liaison Updates

Clark County (*Phil Klevorick*)

The regular DOE EM updates provide helpful information to Clark County. Specifically, the Emergency Planning Committee is assured the DOE is monitoring road shipments to the Nevada National Security Site (NNSS) to ensure safety.

Nye County (*John Klenke*)

Nye County has submitted a proposal to DOE for its own study of the groundwater at southwest Pahute Mesa on the northwest corner of the NNSS. Modeled after a Nye County program previously done at Yucca Mountain, the study would afford Nye County greater involvement in the process and a better understanding of the hydrology and potential migration of contaminants into the county.

State of Nevada Division of Environmental Protection (*Tim Murphy*)

Nothing new to report since last meeting

U.S. National Park Service (*Genne Nelson*)

- Death Valley National Park operations are not currently affected by any current activities on the NNSS or transportation of waste to and from the site
- The U.S. National Park Service is interested in model development to track groundwater contamination and migration
- Mr. Mike Cipra, Environmental Protection Specialist, is the alternate liaison for the U.S. National Park Service

U.S. Department of Energy (*Scott Wade*)

- U-233 Waste Disposition
 - John Krueger, Project Manager, Oak Ridge National Laboratory, is working the safety and security measures
 - Earliest shipments to NNSS are tentatively expected in the April/May 2013 timeframe
 - DOE's response to the NSSAB's U-233 disposition recommendation is included in the meeting packet
- EM Budget
 - DOE's response to the NSSAB's fiscal year 2014 Budget Prioritization recommendation is included in meeting packet
 - A fiscal year 2013 Continuing Resolution is expected may be in place for the entire fiscal year
 - The Budget Control Act requires Congressional action by January; otherwise there will be an automatic 10% reduction in government funding across the board
- Waste Management Open House
 - Similar to past Groundwater Open Houses, the DOE will conduct a Waste Management Open House from 5 to 8 p.m. on June 19 at the Bob Ruud Community Center in Pahrump
- Groundwater Open House
 - DOE will conduct a Groundwater Open House September 18 in Amargosa, Nevada

- Site-Wide Environmental Impact Statement (SWEIS) Update

- Comments received during the public comment period are currently being addressed
- The SWEIS document is tentatively scheduled to be issued in the fall and no later than the end of the calendar year
- Paul Seidler was appointed Director of the Office of External Affairs for EM Headquarters reporting to Senior Advisor David Huizenga

Member Recognition

Outgoing Board members (Robert Johnson, Gregory Minden, John McGrail, and Walter Wegst) were recognized. Their years of service are greatly appreciated.

Groundwater Briefings

Frenchman Flat – Response Plan

(Greg Ruskauuff, Navarro-Intera, LLC)

- 828 underground nuclear tests were conducted at the Nevada National Security Site (NNSS), with one-third in, near, or below the water table and resulting in some groundwater contamination
- The Underground Test Area (UGTA) activity evaluates impacts on groundwater resources and studies contaminant migration
- The Frenchman Flat Corrective Action Unit is the first UGTA Corrective Action Unit to complete the Corrective Action Decision Document/Correction Action Plan, and receive approval from the State of Nevada Division of Environmental Protection
- Establishing boundaries
 - Contaminant boundary represents the maximum extent of groundwater contaminated above Safe Drinking Water Act standards
 - Subsurface use restriction boundaries prevent deep subsurface excavation for other than environmental investigations
 - Regulatory boundary identifies where corrective actions are required to ensure public and environmental protection from contaminated groundwater exposure
- Two model evaluation wells will be drilled in 2012 to collect additional data to test and refine models
- The Frenchmen Flat basin drains off the Nevada National Security Site through the Rock Valley fault system
- The Frenchman Flat regulatory boundary will be negotiated with the State of Nevada Division of Environmental Protection
- If radionuclides reach the regulatory boundary, the Department of Energy must submit a Response Plan to the State of Nevada Division of Environmental Protection to meet the specific regulatory boundary objectives
- A formal response plan documents how the Department of Energy would respond in the event of a specific condition in order to streamline decision making
- Potential UGTA response plans would be Corrective Action Unit specific
- Examples were shared of response plans for contamination of public water supply wells (Weldon Spring, Missouri), offsite soil contamination migration (Rocky Flats, Colorado), and a conceptual plan (Fernald, Ohio)

- A Frenchman Flat response plan would...
 - Identify steps to be taken if contamination goes beyond the regulatory boundary
 - Is unlikely to be invoked due to the limited transport distance relative to the regulatory objective
 - Would require periodic revision as more data is collected
- Before the Department of Energy can develop a response plan, monitoring wells must be drilled and data collected and a regulatory boundary determined
As part of the NSSAB Work Plan, the Department of Energy is requesting a Board recommendation on what should be included in a Frenchman Flat response plan

In response to NSSAB member questions, the following clarifications were provided:

- The Rock Valley Fault Zone appears to be the most natural pathway for water flow in the Frenchman Flat basin
- DOE would determine model evaluation well sites based on the interconnectivity of the flows for a response plan
- In general, water is migrating through Amargosa to Death Valley
- The water supply for Area 23 is at Mercury
- Data collected from the model evaluation wells will be used to determine location of long-term monitoring wells in the future
- The water table is at 700 feet in Frenchman Flat
- A contaminant transport model is developed specifically for each Corrective Action Unit, and each model has undergone a peer review
- Nevada Test and Training Range model evaluation well data is available; however, these wells are not in close proximity to Frenchman Flat

Chair Bienenstein suggested three options for a path forward: 1) brainstorm ideas for response to the plan immediately, 2) have Members submit comments to the NSSAB Office by June 22 for consolidation and distribution to the Full Board for discussion at the July meeting, or 3) table any discussion until the July meeting. Member Coss moved to table discussion of the Frenchman Flat Response Plan (Work Plan Item #7) until the July meeting. The motion was seconded and passed unanimously.

Frenchman Flat – Response Plan

(Irene Farnham, PhD, Navarro-Intera, LLC)

- Outline
 - Evaluation of Selected Remedial Alternatives document, DOE/NV (1997)
 - UGTA Strategy
 - Remediation at other DOE sites
- 43 radionuclides were produced during nuclear tests sufficient to be considered a potential risk
- DOE/NV (1997) alternatives were evaluated on short-term effectiveness, technical feasibility, and cost

- DOE/NV (1997) considered the following alternatives (details are provided in the presentation copy which can be found at www.nv.energy.gov/NSSAB):
 - No further action
 - Institutional controls
 - Intrinsic remediation
 - Pump and in situ treatment
 - Excavation and onsite disposal
- In 2001, a technical peer review evaluated DOE/NV (1997) alternatives and found:
 - Selection of alternatives is comprehensive
 - Intrinsic remediation and institutional controls were clearly supported
 - There was no new remediation technology since the evaluation
 - There is a recurrent need for further evaluation of alternatives as new methods are discovered
- Containment/remediation examples were provided from the Hanford, Savannah River, Idaho, Los Alamos, Oak Ridge, and Paducah sites
- As part of the NSSAB Work Plan, the Department of Energy is requesting a Board recommendation whether to:
 - Accept the DOE/NV (1997) evaluation/results with the option to revisit the decision later
 - Re-evaluate the DOE/NV (1997) remedial alternatives and approach
 - Perform a new evaluation of remediation alternatives

In response to NSSAB member questions, the following clarifications were provided:

- Most DOE sites have waste disposal facilities
- Since the DOE/NV (1997) study, there are no new methods of remediation appropriate for use at the NNSS and EM continues to research applicable technologies
- Mr. Bill Wilborn clarified that the current strategy is risk-based and is focusing on characterization. While this strategy is being implemented the Nevada Site Office works with other DOE sites to learn about new technologies.

Vice Chair Wegst moved to recommend DOE accept the evaluation/results of DOE/NV (1997) with the option to revisit decision as more data on groundwater contamination flow becomes available. The motion was seconded and passed unanimously. The NSSAB Office will prepare a draft recommendation based on the motion for review and vote at the July 18, 2012 Full Board meeting.

Public Comment

- Dr. Leonard Kreisler
 - Two minutes is not appropriate time for comment given the length of the meeting
 - Many of the solutions discussed in the presentations from other sites are not germane to the NNSS
 - The general public and professionals in southern Nevada are not knowledgeable about radioactive contamination of groundwater
 - Tritium in the drinking water has no health effects
 - If contaminated groundwater reaches Indian Springs, that water does not come to Las Vegas
 - DOE has never done public relations and needs to increase these activities to educate the public and to advertise NSSAB meetings
 - Groundwater wells should be monitored with no additional activities or expenditures on characterization

- Janice Keiserman
The Sierra Club's Water Watch has a similar situation regarding the water pipeline from the Great Basin. If the Great Basin is emptied of water, certain precious species of life that do not exist anywhere else on the planet will be affected. All these things are connected.
- David Bender
Once Congress appropriates funding for a program, it has to be spent on that program. In regards to \$25 billion now in the Yucca Mountain Project, Congress regards that as general revenue, it does not go to the state that accepts the nuclear repository, it goes to Congress. Except Nye County - there is a provision for \$5 million toward the county that actually has the repository - \$24.9 billion goes to Washington.
- Jon Barth
In the last presentation, it would be more meaningful for plume depths to be measured in acre feet. Also, water should be measured to determine how dangerous it is by giving it to rats. This would be a good idea before making decisions and spending any more money on something that is very expensive.

WCTA Student Project Presentation – Survey Results
(Cielomina Gumabon/Justine Leavitt)

Liaisons Gumabon and Leavitt presented results of a survey conducted with the WCTA student population. To date, 253 responses had been tabulated, which is approximately one-third of the student population. The survey was designed to measure how aware, knowledgeable, and interested the students are in the NSSAB, the NNSS, and the EM Program.

The project includes three phases:

1. Measure the students knowledge base with a series of questions
2. Create an educational tool to educate the students at WCTA
3. Conduct an additional survey to measure the impact of the educational tool on student knowledge

Student Survey results included:

- Personal information (student number, zip code, school program, grade)
- Knowledge of the existence of the DOE and the NNSS was at approximately 50%
- less than 5% were very knowledgeable of Site activities
- 7% have family/friends involved with the Site
- 45% expressed interest in learning about environmental management at the Site
- 58% believe public knowledge of cleanup activities would decrease community concerns
- 53% are interested in environmental issues/solutions at the Site
- 10% have heard of the NSSAB
- 9% have concerns they would like brought to the NSSAB
- 93% of students had some knowledge of radiation, nuclear weapons history, or atomic science
- Students preferred an assembly/audience interaction (36%), a short documentary (24%), or a comic book series (11%) as a means of providing information to them about the NSSAB and the Site

- Based on the survey results, the Student Liaisons will formulate three educational project proposals for presentation to the NSSAB Membership Committee
- Over the next year, the selected proposal will be developed, launched to WCTA students, and evaluated utilizing a post-launch survey

Kelly Snyder outlined DOE's ongoing relationship with WCTA including the Student Liaison positions and project, DOE participation in Career Day, and classroom briefings. Internships are also being discussed. The educational tool developed by the Student Liaisons may be used as part of DOE's public involvement throughout southern Nevada.

Industrial Sites – Long-term Monitoring at Closed Sites (Work Plan Item #6)

(Chair Bienenstein)

The due date for Work Plan Item #6 had been moved from May 1 to July 31. DOE's response to the NSSAB's request for information is included in the meeting packet. Chair Bienenstein suggested two options for a path forward: 1) collect input during tonight's meeting and via email through June 22 for consolidation and recommendation draft by the NSSAB Office based upon guidance from the Board for vote at the July meeting, or 2) have Members provide comments via email to the NSSAB Office by June 22 for consolidation and distribution to the Full Board for discussion and recommendation at the July meeting.

Member Coss moved Members provide comments via email to the NSSAB Office by June 22 for consolidation and distribution to the Full Board for discussion and recommendation at the July meeting. The motion was seconded and passed unanimously.

Membership Committee

(Committee Chair Donna Hruska)

The Membership Committee participated in 14 applicant interviews. The Committee's draft recommendation included a slate of candidates by category.

Category One	highest priority
Category Two and Three	appointed as necessary to maximize Board balance/diversity
Category Four	declined

Vice Chair Wegst made a motion to approve the recommendation as written for DOE consideration in the development of the membership package to be submitted to EM Headquarters. The motion was seconded and passed unanimously.

Other NSSAB Business

(Chair Bienenstein)

- **EM SSAB Chairs Update**
 - Attendees toured the Gaseous Diffusion Plant in Paducah, KY. Of particular interest was a demolition project where an asbestos sealer was painted onto the structure, inside and out, to control asbestos dust during demolition. Rob Boehlecke added that Environmental Restoration has looked at this product and is considering a similar product for the Engine Maintenance Assembly and Disassembly facility demolition. Any such product would have to withstand high temperatures and Environmental

Restoration will work with the Environmental Protection Agency to determine the appropriate product.

- The Nevada update included the WCTA Student Liaisons and their student project. Senior Advisor Huizenga expressed an interest in the project and an article is being written for the Headquarters newsletter to share the information across the complex.
- Kelly Snyder provided a Headquarters chart illustrating the 150-day timeline for membership package approval. The chart includes the entities involved in review and the length of time for each step in the process.

- **EM SSAB Recommendation**

During the April 2012 EM SSAB Chairs Meeting, a recommendation was developed requesting Headquarters consider the value of the EM SSAB in light of impending budget cuts. The Board must vote whether or not to support the letter of recommendation as written.

Vice Chair Wegst moved to support the letter of recommendation. The motion was seconded and passed unanimously

- **Fall EM SSAB Meeting**

Funds are available to send two NSSAB members to the October EM SSAB Chairs meeting to be held in Washington DC. Travel will be from October 1 through October 4. Members should advise Ms. Snyder if they are interested in attending.

- **Vice Chair Vacancy**

Members were requested to advise the NSSAB Office if they are interested in the vacated Vice Chair position. A vote will be taken at the July meeting.

- **Waste Management Open House** (*Kelly Snyder, DDFO*)

Chair Bienenstein has offered to staff the NSSAB booth at the Waste Management Open House on June 19. Other Members are encouraged to assist in this event and to post event flyers in their communities.

Next Meeting

The next Full Board meeting is scheduled for 5:00 p.m., Wednesday, July 18, 2012, at the Bob Ruud Community Center, Pahrump, Nevada. Bus transportation will be available from Las Vegas to Pahrump. It was agreed Members would provide their own brown bag meal.

Meeting Assessment

(*Kelly Snyder, DDFO*)

- It was agreed to use microphones at meetings held at the Frank Rogers Auditorium to ensure all discussions are easily heard by attendees
- Methods of increasing NSSAB meeting awareness were suggested, including a letter to the editor and inclusion in the calendar of events in "The View" section of the Las Vegas Review Journal

Vice Chair Wegst moved the meeting be adjourned. The motion was seconded and passed unanimously.

Meeting adjourned at 8:21 p.m.