



Northern New Mexico Citizens' Advisory Board Meeting

July 28, 2010

1:00 p.m. to 7:00 p.m.

**Meeting Location: Holiday Inn Express and Suites
60 Entrada Drive, Los Alamos, New Mexico**

MINUTES

Attending:

NNMCAB Members-

- 1. Ralph Phelps, NNMCAB Chair**
- 2. Pam Henline, EMSR Committee Chair**
- 3. Deb Shaw, EMSR Committee Vice Chair**
- 4. Gerry Maestas, WM Committee Chair**
- 5. Nicole Castellano**
- 6. Lawrence Garcia**
- 7. Pamela Gilchrist**
- 8. Deborah Gill**
- 9. Jacqueline Gutierrez**
- 10. Lawrence Longacre**
- 11. Caroline Mason**
- 12. Manuel Pacheco**
- 13. Carlos Valdez**
- 14. Bob Villarreal**

Excused Absences-

- 1. Robert Gallegos, NNMCAB Vice Chair**
- 2. Michelle Medinsky**
- 3. Mike Loya**
- 4. John Lujan**

NNMCAB Staff-

Menice Santistevan, Executive Director
Lorelei Novak, Technical Programs and Outreach
Grace Roybal, Office Administrator
Edward Roybal, Sound Technician

Also in Attendance-

Lee Bishop, Co-Deputy Designated Federal Officer (DDFO)
Ed Worth, Co- Deputy Designated Federal Officer (DDFO)

Guests-

Stephen Schmelling, Public

Toni Chiri, LASO

Fred DeSousa, LANL

Paul Huber, LANL

Bill Criswell, LANL

Bruce Wedgeworth, LANL

H. L. 'Jody' Plum

Kay Birdsell, LANL

J. D. Campbell, Public

Danny Katzman, LANL Environmental Programs

Bob Gilkeson, Public

Joseph J. Johnson, LANL

Pat Nakagawa, LANL

David S. Rhodes, DOE-EM/LASO

Lisa Aldridge, Portage, Inc.

AGENDA

- I. Call to Order**
 - II. Welcome and Introductions**
 - III. Establishment of Quorum (10 needed)**
 - a. Roll Call**
 - b. Excused Absences**
 - IV. Approval of Agenda**
 - V. Approval of Minutes of May 13, 2010**
 - VI. Public Comment Period**
 - VII. Old Business**
 - a. Written Reports**
 - b. Update on Fall Chairs Meeting (Review Preliminary Agenda)**
 - VIII. New Business**
 - a. Chairs' Recommendation on Baseline Funding Support**
 - b. Report from Nominating Committee**
 - c. Approve "Top Three Issues" for Fall Chairs' Meeting**
 - d. Invitation to Decisionmakers' Forum (October 12-15, 2010)**
 - IX. Status of Groundwater at Technical Area 54 and Technical Area 21**
 - X. Presentation Material Disposal Area T Background and Status Update**
 - XI. Consideration and Action on Draft Recommendation to the Department of Energy**
 - a. Draft Recommendation 2010-07, "Recommendation for Use of DOE ARRA Monies by End of Calendar Year 2011" (withdrawn)**
 - XII. Public Comment Period**
 - XIII. Open Forum for Board Members**
 - XIV. Items from Deputy Designated federal Officers**
 - XV. Discuss Tasks for Hosting Fall Chairs Meeting**
 - XVI. Adjournment**
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MINUTES

I. Call to Order, DDFO Introductions

The regular bi-monthly meeting of the Northern New Mexico Citizens' Advisory Board (NNMCAB or CAB) meeting was held on July 28, 2010, at the Holiday Inn Express, Los Alamos, New Mexico. Mr. Worth, Co-Deputy Designated Federal Officer (DDFO) stated that on behalf of the Department of Energy (DOE), the regular bi-monthly meeting of the NNMCAB was called to order at 1:00 p.m. Mr. Worth introduced guest Mr. David Rhodes, Federal Project Director for Environmental Clean-up at LANL. Mr. Worth recognized Mr. Phelps as NNMCAB Chair. The Chair p resided. The regular meeting of the NNMCAB was open to the public and posted in **The Federal Register** in accordance with **The Federal Advisory Committee Act**.

II. Welcome and Introductions

Mr. Phelps welcomed everyone to the meeting. He stated his appreciation for everyone's attendance. Mr. Phelps asked for round robin introductions from the members and guests in attendance. Mr. Phelps went over the public comment process and he mentioned there were two public comment periods scheduled for the meeting. The board would hear three presentations from Subject Mater Experts (SMEs), (1) Status Update for Material Disposal Area T, (2) a Status of Groundwater at Technical Area 54 and (3) an Update on the Closure process at Technical Area 21. Additionally, the Board would hold an open forum for member discussion; plan for the upcoming SSAB Chairs meeting and discuss draft recommendations to the Department of Energy (DOE).

III. Establishment of Quorum (10 needed)

a. Roll Call

Ms. Novak conducted roll call as the members arrived. Fourteen members were present at the start of the meeting, which made a quorum for conducting business.

b. Excused Absences

Mr. Worth and Mr. Bishop, Co-DDFOs, had previously approved excused absences for Robert Gallegos, Michelle Medinsky, Mike Loya and John Lujan.

IV. Approval of Agenda

The Board reviewed the July 28, 2010 CAB meeting agenda. Mr. Phelps called for any comments or additions to the agenda. Mr. Bishop stated there would be a change in the order of presentations. **Ms. Henline made a motion to approve the agenda as amended and Mr. Pacheco seconded the motion. The amended meeting agenda was approved.**

V. Approval of Minutes of May 13, 2010

The Board reviewed the minutes from the May 13, 2010 CAB meeting. By ongoing instructions from DOE Headquarters, the minutes were previously reviewed and certified by the NNMCAB Chair, Mr. Ralph Phelps. The minutes were distributed in the mailed meeting packets and were presented at the meeting for Board approval.

Ms. Castellano made a motion to approve the minutes as presented.
Mr. Garcia seconded the motion. The minutes were unanimously approved.

VI. Public Comment Period

Mr. Phelps opened the floor for public comment. No one signed up to speak.

VII. Old Business

a. Written Reports

➤ **NNMCAB Chair's Report**

A printed copy of the Chair's Report was included in the meeting packet and a copy may be obtained by request from the CAB office at (505) 989-1662. Mr. Phelps asked for questions or comments on the written reports; the intent was for the reports to be submitted in writing but questions could be brought up in this section or later.

Mr. Phelps briefly reviewed the main points in the Chair's report.

Routine Chair Activities since last NNMCAB meeting on May 13, 2010

- I. Executive Committee meetings on June 9, 2010 and July 14, 2010:
 - a. Sent a letter on June 15, 2010 to San Ildefonso Governor Perry Martinez to request time on a future meeting of the Eight Northern Pueblos Council to exchange input with the pueblos on CAB participation. Awaiting response.
 - b. Reviewed the agenda for the July 28, 2010 meeting in Los Alamos. DDFOs reminded the members that travel reimbursement was for CAB members only.
 - c. Announced Kevin Smith was the new LASO manager effective end of July 2010.
 - d. Invited to speak and participate in a panel discussion with other CAB **Chairs at the annual Decisionmakers' Forum** conference on DOE cleanup programs on October 10-15, 2010 in Florida. This meeting was sponsored by the *Weapons Complex Monitor*, a newspaper following environmental issues at DOE. The Executive Committee and the Co-DDFOs have approved Mr. Phelps attendance.
 - e. Supported combined EMSR and WM Committee meetings on June 9, 2010 and July 14, 2010.

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- II. SSAB Related Chair Activities since last NNMCAB meeting on May 13, 2010:
- a. NNMCAB to host SSAB Chairs Meeting on Sept. 14-16, 2010 in Santa Fe.
 - b. Planning committee conference calls were held on May 17, June 3, June 17 and July 15, 2010.
 - c. Discussed the proposed agenda for the Sept 14-16, 2010 SSAB Chairs Meeting to be held at the La Fonda hotel in Santa Fe. The agenda has been prepared for final approval by DOE/HQ. Mr. Phelps encouraged attendance by as many of the NNMCAB members as could make it, and for the Board to act as hosts/advisors to the other chairs and attendees. He asked the members who planned to attend the meeting to register on the website: www.ssabregister.info.
 - d. Participated in the Chairs bimonthly conference call on May 19, 2010 with updates from HQ and other sites.

III. Other Activities:

- a. Participated in an Energy Communities Alliance Workshop on Energy Parks in Las Vegas, Nevada on June 10-11, 2010. There was a lot of interest in Energy Parks for restored Environmental Management (EM) waste sites.
- b. Attended the May 22, 2010 Material Disposal Area B (MDA-B) Technical Area 21 (TA-21) Open House to observe LANS excavation plans. He thanked Ms. Novak for hosting an information table about the NNMCAB at the event.
- c. Met with Ines Triay (EM-1) and the Los Alamos Council to present Ms. Triay the "Key to Los Alamos" for her support on June 4, 2010.
- d. Invited to attend the Intergovernmental Summit 2010 hosted by Santa Fe County on July 28, 2010. Many environmental topics were planned for discussion with local municipalities and Pueblos.

➤ **NNMCAB Executive Director's Report**

A printed copy of Ms. Santistevan's report was included in the meeting packet and a copy may be obtained by request from the CAB office at (505) 989-1662.

Ms. Santistevan's report included:

Information about Board Membership:

- The NNMCAB currently consisted of 18 members. The next nomination package for new appointments and reappointments was scheduled to be submitted late 2010.
- The updated CAB Directory was included in meeting packets; asked members to be sure that their contact information was correct.

Next CAB Meeting:

- Ms. Santistevan reminded the board that the next regular CAB meeting was scheduled for September 29, 2010 to be held at the SageBrush Inn and Conference Center, Taos, New Mexico.

Board Meeting Preparations:

- Ms. Santistevan prepared and submitted Draft Agendas for this meeting and

the notice to **The Federal Register** on June 9, 2010, in compliance with
The Federal Advisory Committee Act.

- Meeting materials were copied and collated by Ms. Roybal and meeting packets were mailed out on July 21, 2010.
- An advertisement for the meeting was placed in the *Los Alamos Monitor* by Ms. Roybal and on the NNMCAB website by Ms. Novak.

EM Site-Specific Advisory Board Chairs Meetings:

- **The NNMCAB will be hosting the Fall 2010 Chairs' meeting on September 14** through 16, 2010 at Hotel La Fonda. Ms. Santistevan executed the contract with Hotel La Fonda as the venue for this meeting. She has also contracted with the **Palace of the Governors for the "Welcome to Santa Fe" Reception.**
- Ms. Santistevan, Mr. Bishop and Mr. Worth have made arrangements with the LANL staff to finalize the LANL site tour on September 14, 2010. Ms. Santistevan and Mr. Garcia met with Santa Fe Mayor, Mr. David Coss, to ask him to give the welcome at the reception; he has agreed. Two additional planning committee conference calls have been scheduled and the group has developed the Preliminary Agenda for the Fall meeting. The draft SSAB agenda was included in the mailed meeting packets.
- To support the meeting preparations, Ms. Novak created the registration website: www.ssabregister.info and Ms. Roybal has been ordering office materials and other items needed for the meeting. She welcomed any NNMCAB members who would like to help with this major project.

Office Management:

- Ms. Santistevan has been working at the Los Alamos Site office on Tuesdays, which gives her more direct access to the Co-DDFOs, Mr. Bishop and Mr. Worth, along with other EM and LANS staff. This arrangement has improved communications between the offices.
- The staff supported all committee meetings with preparation of notices, agendas and committee minutes.
- Ms. Novak updates the NNMCAB public web site on a weekly basis. She has **been working with Headquarters staff to transfer the site from ".org" to a ".gov", which is now required** and has been a continuing project. Ms. Novak will continue to work with HQ in the months ahead to make requested changes to the website.
- Federal Register Notice for August 11, 2010 Combined Committee meeting was submitted on July 16, 2010.
- Federal Register Notice for September 29, 2010 meeting Board Meeting to be submitted by August 27, 2010.

➤ **EMSR Committee Chair Report**

Ms. Henline, Environmental Monitoring, Surveillance and Remediation (EMSR) Committee Chair, provided a written report, which was included in the meeting packet.

A copy of Ms. Henline's report may be obtained by request from the CAB office at (505) 989-1662.

The EMSR Committee met jointly with the Waste Management Committee on June 9, 2010 where the committees heard a presentation on Technical Area-49 with Suzanne Schulman, Deputy Federal Project Director, DOE/LASO and on July 14, 2010 where the **committees heard a presentation, "Vadose Zone Monitoring at Technical Area 54" with Jarrett Rice, LANS Subject Matter Expert (SME).** Both committees continue to **develop their work plans for FY'11.**

Announced meeting date and time for the next regular committee meeting:

Next EMSR Committee meeting will be held on August 11, 2010, from 2 p.m. to 4 p.m. at the LANL Foundation in Espanola, New Mexico.

➤ **WM Committee Chair Report**

Mr. Maestas, Waste Management (WM) Committee Chair provided a written report, which was included in the meeting packet. A copy may be obtained by request from the CAB office at (505) 989-1662.

The WM committee met jointly with the EMSR Committee on June 9, 2010 where the committees heard a presentation on Technical Area-49 with Suzanne Schulman, Deputy Federal Project Director, DOE/LASO and on July 14, 2010 where the committees **heard a presentation, "Vadose Zone Monitoring at Technical Area 54" with Jarrett Rice, LANS Subject Matter Expert (SME).** Both committees continue to develop their work **plans for FY'11.**

Announced meeting date and time for the next regular committee meeting:

Next EMSR Committee meeting will be held on August 11, 2010, from 2 p.m. to 4 p.m. at the LANL Foundation in Espanola, New Mexico.

Board Comments on the Written Reports-

Performance Assessment and Composite Analysis (PA/CA) CD

- Performance Assessment and Composite Analysis (PA/CA) CD was now available for review at the CAB office.
- It was suggested the CAB members become familiar with the PA/CA, discussed the concept of real or perceived risk, reiterated recommendations be based on the result of the study of issues.

Member Attendance at SSAB Chairs Meetings

- Suggestions were made for various ways to allow more/different members to attend offsite meetings, specifically, varying the attendance at the semi-annual Site-Specific Advisory Board Meetings.
- Mr. Phelps restated DOE attendance requirements for the SSAB Chairs meetings included the attendance of the DDFOs and staff from the Boards. As a matter of policy, Chair and Vice Chair from each Board are requested by the DOE to attend the SSAB meetings.

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- It was mentioned that the next SSAB Chairs meeting would to be held in Santa Fe and all members from the NNMCAB were invited to attend.
- Mr. Bishop informed the group that requests for member travel for educational, board mission related reasons would be reviewed by the Executive Committee and the DOE for possible approval. Mr. Bishop noted that the DOE was willing to consider member travel to conferences and other mission related events if **approved by the CAB's Executive Committee.**

CAB Coffee and Flower Fund

- Comments were made regarding making donations to the coffee fund. Some members would prefer not to donate to a coffee fund as other members did not seem to mind donating approximately five dollars a month to the fund.
- Mr. Bishop explained that the board has a voluntary fund to help pay for coffee, meeting refreshments and occasional condolence flowers because of specific guidelines regarding how federal funding can be used.
- The topic would be discussed further at the next Executive Committee meeting.

b. Update on Fall Chairs Meeting (Reviewed Preliminary Agenda)

The draft agenda for the SSAB Chairs meeting was included in the mailed meeting packets. Mr. Bishop explained the upcoming Fall 2010 Environmental Management Site-Specific Advisory Board (EM-SSAB) Chairs Meeting was scheduled for Wednesday and Thursday, September 15-16, 2010 at Hotel La Fonda in Santa Fe, New Mexico, to include a planned tour of Los Alamos National Laboratory (LANL) on Tuesday, September 14, 2010. The LANL site tour would begin at the Bradbury Science Museum, tour Technical Area 21 (TA-21) and Material Disposal Area G (MDA-G) among other sites. A "Welcome to Santa Fe Reception" has also been planned for the evening of September 14, 2010 beginning at 6 p.m. to be held at the Palace of the Governors, which is located one block from Hotel La Fonda.

The meeting will be hosted by the NNMCAB. The event occurs simultaneously with the 400th anniversary of the City of Santa Fe. Mr. Bishop has been working with the CAB staff and CAB members to develop a brochure with information about Santa Fe and provide restaurant recommendations for other SSAB attendees. The Environmental Management Advisory Board (EMAB) will hold its semi-annual meeting concurrently, also at La Fonda.

The NNMCAB was welcome to attend the meeting in Santa Fe. Two members of this board, generally the Chair and Vice Chair, would actually sit at the table and participate in the meeting. He explained the schedule included one day of site tours, with is the first day ending in a social reception type of event and the second and third days were for meetings and presentations from DOE Headquarters on site wide issues and the top three issues generated from each site.

Mr. Phelps thanked the CAB staff and Co-DDFOs their hard work in planning this meeting. Mr. Phelps asked if the members had any comments on suggestions regarding the meeting agenda.

1 Member comments on the SSAB Meeting Agenda

2 Members suggested adding the following Agenda items:

- 3 • Consider adding American Reinvestment and Recovery Act Funding (ARRA
4 Funding) issues of using appropriated budget within ARRA time constraints and
5 what to do with workers hired with ARRA Funding when projects were
6 completed.
- 7 • Suggested a discussion of the risk of transporting waste on the highways verses
8 leaving waste in place at sites.
- 9 • Land use, i.e. what happens after land use transfer, Long Term Stewardship
10 discussion requested to clarify responsibility of the long term modeling. Mr.
11 Bishop noted that Mr. Frank Marcinowski, DOE, would be touching on this topic
12 during his presentation at the meeting.
- 13 • Clarification was requested on final disposition of Yucca Mountain High Level
14 Waste storage project and explanation of what happened to the staff from Yucca
15 Mountain.

17 **VIII. New Business**

18 **a. Chairs' Recommendation Letter on Baseline Funding Support**

19 Mr. Phelps made reference to the draft May 6, 2010 SSAB Chair's product letter
20 regarding "Recommendation on Baseline Funding Support." He asked if the board had
21 a chance to read the letter? Since it was a Chairs product from the Spring 2010 SSAB
22 meeting, no substantive changes would be allowed by the board. Mr. Phelps asked for
23 an up-or-down vote from this board to approve his signature along with the other SSAB
24 Chairs to approve the letter be sent to Dr. Ines Triay.

25 The board discussed the letter. Discussion comments included:

- 26 • Accelerated clean-up had received favorable feedback from the New Mexico
27 Environment Department, ARRA Funded Projects were helping LANL and DOE to
28 further their efforts at meeting the deadlines set out in the New Mexico Order on
29 Consent (the Order).
- 30 • Comments were made questioning why it took ARRA Funding to get clean-up at
31 TA-21 facilitated.
- 32 • Regardless of ARRA Funding support, the board needed to advocate for full
33 funding of the baseline budget for clean-up at Los Alamos.
- 34 • Comments about clean-up priorities were made, with many different agencies
35 and projects needing funding, it was asked who determined the priorities for
36 funding.
- 37 • Suggestions were made to bold certain sections of the letter for emphasis. Ms.
38 Santistevan agreed to recommend but generally no changes were allowed by the
39 individual sites.
- 40 • It was noted that sites with a lot of political and community support for clean-up
41 seemed better positioned for funding of remediation projects.

1 **Mr. Maestas made a motion to approve the Chairs' Recommendation**
2 **Letter on Baseline Funding Support with a non-substantive change of bolding**
3 **a few sentences for emphasis that was suggested by Ms. Henline. Mr. Valdez**
4 **seconded the motion to approve. The motion to approve the letter passed**
5 **unanimously.**
6

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8 **b. Report from Nominating Committee**

9 At the May CAB meeting, Mr. Phelps asked for volunteers to form an Ad Hoc
10 Committee for the annual elections to be held at the September 29, 2010 CAB meeting.
11 The following members volunteered:

- 12 1. Ms. Pam Henline
13 2. Dr. Deb Shaw
14 3. Mr. John Lujan

15 Dr. Shaw provided a report based on polling efforts of the nominating
16 committee. She reported all feedback the Ad Hoc Committee had received so far was in
17 favor of keeping the status quo—**Mr. Phelps for Chair and Mr. Gallegos for Vice**
18 **Chair.**
19

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21 **c. Approved "Top Three Issues" for Fall Chairs' Meeting**

22 The Board discussed the draft issues for the NNMCAB. Suggestions were made
23 regarding changing the wording for the Board's accomplishments. It was also
24 suggested to add the issue of removing the waste contained in the 33 shafts at Area G
25 to the top issues section. Mr. Phelps stated he would take the board's suggestions into
26 consideration and rework the document. Mr. Phelps asked for the Board's agreement
27 to allow him to incorporate the board's suggestions into the final output. **The board**
28 **agreed to let the Chair finalize the wording of the NNMCAB's Top Issues.**
29

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31 **d. Invitation to Decisionmakers' Forum (October 12-15, 2010)**

32 Mr. Phelps was invited to speak and participate in a panel discussion with other
33 CAB Chairs at the annual Decisionmakers' Forum on DOE cleanup programs to be held
34 on October 10-15, 2010 in Florida. This event has been sponsored by the *Weapons*
35 *Complex Monitor*, a newspaper following environmental issues at DOE. The Executive
36 Committee and the Co-DDFOs have approved Mr. Phelps attendance.
37

38
39 **IX. Status of Groundwater at Technical Area 54**
40 **and Technical Area 21**

- 41 **a. Mr. Danny Katzman, LANS, provided a Subject Matter Report**
42 **entitled, "Update on TA-54 Groundwater Monitoring," LA-UR**
43 **105024.**

Mr. Katzman's presentation provided an overview of hydrogeology and explained the guiding principles for establishing the groundwater monitoring network at LANL. Mr. Katzman discussed the iterative process for development of the groundwater monitoring network at TA-54, explained the current status of groundwater monitoring at TA-54 and described path forward. **Key points of Mr. Katzman's presentation are outlined below:**

Described Network Evaluation Objectives

- Exhibited a simplified depiction of groundwater zones at LANL.
- Explained guiding principles for establishing a groundwater monitoring network in which all applicable groundwater zones should be monitored including:
 - Alluvial groundwater
 - Perched-intermediate groundwater
 - Regional aquifer (Some board questions came up as to what constituted the "regional" aquifer, Mr. Katzman agreed to check on this and provide additional information to Mr. Worth.)
 - **Monitoring network requires an iterative "adaptive management" process** that was continually informed by new information
 - Key information that informs iterations includes:
 - Water-level data
 - Water-quality data
 - Geology
- Specifically discussed the development of phases for the Technical Area (TA-54) Monitoring Well Network.
 - **"Phase 1"** – Hydrogeological Work Plan (HWP)
 - **"Phase 2"** – TA-54 Monitoring Well Network evaluated in context of the following objectives (NMED letter of April 5, 2007):
 - Provide an understanding of the nature and extent of contamination
 - Meet Resource Conservation and Recovery Act (RCRA) monitoring objectives to detect releases
 - Protect water-supply wells and potential offsite migration at 95% detection confidence
 - **"Phase 3"** – Current Monitoring Well Installation Campaign
 - Refinement of the hydrogeologic conceptual model from Phase 2 wells
 - October 19, 2009 letter from the Laboratory recommended 7 additional regional aquifer wells (14 screens) – NMED approved
 - Refined conceptual model
 - Data gaps in the monitoring well network
 - Questions regarding reliability of existing wells
 - Ensure that a robust groundwater monitoring well network would be in place to support Consent Order and RCRA Permit groundwater characterization and monitoring requirements

Discussed Results of TA-54 Network Evaluation

- The following monitoring well network actions were implemented in 2008 – 2009 following LANL's recommendations and NMED's approval:
 - Six new regional aquifer wells (7 sampled screens)
 - Three perched-intermediate wells (3 sampled screens)
 - Rehabilitation and reconfiguration at existing wells

Described Contaminants Detected at TA-54

- No contaminants detected above MCLs at TA-54.
- Several ambiguous constituents have been detected in some monitoring wells.
- Typically organic compounds.
 - e.g., Toluene, Acetone, Benzene, bis(2-ethylhexyl)phthalate.
- Experience from LANL and other sites suggested possible sources associated with downhole equipment.
- Ongoing monitoring and special studies underway to identify source(s) or to discern if these are LANL contaminants.

Provided a TA-54 Monitoring Summary

- All wells are single- or two-screen wells.
 - All existing wells (except R-22) are equipped with purgeable sampling systems – final disposition/configuration at R-22 is pending.
 - Existing and new wells will be monitored quarterly for next 1-2 years to refine understanding of nature and extent of potential contamination beneath TA-54.
 - Groundwater data will support Corrective Measures Evaluations at TA-54.
- Mr. Katzman answered questions from the Board.

b. Ms. Kay Birdsell provided a Subject Matter Report entitled, "Update on TA-21 Groundwater Monitoring," LA-UR 105089.

Ms. Kay Birdsell, Engineering and Technology Division, LANS provided a Subject Matter Update on Technical Area 21 (TA-21) Groundwater Monitoring. Ms. Birdsell's presentation included an overview of network evaluation objectives, a description of the conceptual hydrogeologic model and network evaluation process with a summary of recommendations. The presentation showed the location of TA- 21 and current monitoring network, key source areas and discussed contaminants of potential concern by area. A TA-21 area cross section diagram with locations of contaminants of potential concern was also provided.

Ms. Birdsell's presentation is outlined below:

Described Network Evaluation Objectives

- Provide sentinel monitoring at water-supply wells for contaminants dispersed along DP Canyon.
- Effectively monitor the fate and transport of contaminants historically released from TA-21.
- Characterize and monitor groundwater in areas near TA-21 contaminant release sites.
- Ensure that vapor-phase monitoring is adequate.
- Characterize and monitor vadose-zone moisture content.

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Discussed Source Prioritization for Potential to Impact Groundwater

(High/Moderate – large liquid disposal volumes, observed migration, known leaks)

- High Priority:
 - SWMU 21-011(k) outfall
 - MDA T
- Moderate Priority:
 - MDA V
 - DP West
 - Waste Lines and Sumps

(Lower – solid waste disposal sites, scheduled source removal, administratively closed)

- Lower Priority:
 - MDA A
 - MDA B
 - MDA U
 - DP East
 - Diesel Fuel Spill

Discussed Contaminants in Groundwater

Alluvial Groundwater:

- Sr-90 > MCL in DP Canyon.
- Tritium, nitrate, perchlorate, Sr-90, Pu-238, Pu-239, Pu-240, and Am-241 elevated above background but below standards.

Perched-Intermediate Groundwater:

- Perchlorate > NM Standard.
- Tritium and nitrate are elevated above background but below standards. There are isolated occurrences of chloroform and 1,4 dioxane.
- These near-field contaminants probably originated at SWMU 21-011(k).

Regional Aquifer:

- No contaminants detected in vicinity of TA-21 except at TW-3.
- At TW-3, tritium slightly elevated above background but below standards (may be related to well construction).
- Tritium, nitrate, and perchlorate are slightly elevated above background but below standards at R-9, located over 4.5 km down canyon of TA-21. These far-field contaminants may have originated at SWMU 21-011(k).

Additionally, the presentation included discussion of groundwater chemistry, groundwater gradient, modeling and monitoring efficiencies. Ms. Birdsell concluded her presentation with the following recommendations and next action steps.

Recommendations

- Install a two-screen replacement well for TW-3, a specific location will be selected and presented in a well-specific work plan.
- Install a new single-screen regional groundwater monitoring well east of the group of moderate-to high-priority potential breakthrough locations at TA 21.
- Install a new single-screen regional groundwater monitoring well northeast of the group of moderate-to high-priority potential breakthrough locations at TA-21.
- Install moisture-monitoring wells near the disposal shaft field at MDA T.

- The number of wells, specific locations, slant vs. vertical boreholes, data collection approach, and number and depth of sampling ports in these wells will be presented in a well-specific work plan.

Next Actions were also discussed

- Review the response from NMED on the groundwater and vadose zone evaluation report.
- Implement the recommendations of the report as modified by NMED.
- Reassess the enhanced monitoring network with the new wells in place to incorporate results and make any appropriate network refinements.
- Appropriately incorporate the groundwater and vadose zone data with the waste sites as final clean up alternatives are considered and selected.

The Board agreed to skip questions with Ms. Birdsell in order to move directly to the next presentation, to remain on schedule.

X. Presentation Material Disposal Area T Background and Status Update

- **Mr. Bill Criswell, LANS, provided a Subject Matter Report entitled, "TA-21 MDA T, Balance of Plant Closure," LA-UR 105025.**

Mr. Bill Criswell provided a Subject Matter Presentation on Technical Area 21 (TA-21) focusing on the Balance of Closure. Key points of Mr. Criswell's presentation are outlined below:

Summary information provided for Material Disposal Area T (MDA-T)

- MDA-T is located within TA-21.
- Area of approx. 2 acres.
- MDA T components designated Solid Waste Management Unit (SWMU) 21-016 (a, b, c), contains:
 - Absorption beds
 - Disposal shafts
 - Retrievable waste storage area
- Investigation proceeding in accordance with NMED Consent Order.
- Radionuclides are regulated by DOE.
- Preparing for Transuranic (TRU) waste decision under DOE Orders.
- Material Disposal Areas (MDA) A, B, T, U and V, contains:
 - Absorption beds and landfills
 - Most radioactive liquid wastes from 1945-1952 was directed to absorption beds and canyon outfalls
 - 4 excavated trenches were filled with sand, gravel and cobbles – 140 ft long, 20 ft wide, 4-12 ft deep
 - 16 million gallons were discharged from 1945-1967 with treated and untreated plutonium wastewater from DP West (Mostly floor drains and decontamination water)
 - 2 million gallons was discharged from 1952-1967 untreated tritium wastewater from DP East
 - Treatment plant (21-35) built in 1952, too small for load

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- 21-257 treatment facility built in 1967 (used bed 4 only for overflow)
- Estimated to contain approx. 9.8 curies plutonium

Discussed MDA T Site History

- Described contents of Waste disposal shafts:
 - Estimated to contain approximately 4,000 curies mixed americium, plutonium, uranium, and mixed fission products
 - Located between absorption beds 2 and 4
 - 64 shafts 2, 6- and 8-ft diameters, 15 to 69 ft deep, some with asphalt lining
 - Covered with 2 – 5 ft of concrete and 4 – 6 ft of soil
 - Used from 1968 to 1975 for TRU waste disposal, after 1975 only low-level waste placed in shafts
 - Mostly radioactive liquid waste mixed with Portland cement from 21-257 pugmill, some shafts used for rinse water only
 - Some waste debris
 - Retrievable Waste Storage Area:
 - Located between absorption beds 1 and 3
 - Originally 120 ft long, 24 ft wide, and 19 ft deep
 - Used from 1975 – 1983 for storage of corrugated metal pipes (CMP) filled with TRU waste from 21-257 pugmill
 - CMPs removed during 1984 - 1986 and transported to TA 54
 - Trench backfilled, no longer used

Explained MDA T Results of Investigations

Phase I 2005-2006:

- Completed 32 boreholes, 20-380 ft deep, retrieved core samples.
 - Plutonium-239 max. detected 230 nCi/g in bed 2 (10 ft deep), non-detect below 40 ft.
 - Americium-241 max. detected 210 nCi/g between beds (22 ft deep), non-detect below 120 ft.
 - Metals most near background – chromium 119 mg/kg (40 ft) (background 19.3 mg/kg)
 - Perchlorate max. detected 0.102 mg/kg (175 ft); 0.021 mg/kg (335 ft) (no background value)
 - Dioxins/furans not detected
 - VOC detections low and sporadic

Phase II 2007-2008:

- 3 vapor monitoring wells to 380 ft depth installed in existing boreholes
 - Concentrations of VOCs and tritium increased to total depth
 - Methylene chloride indicative of VOCs
 - Monthly sampling events 2009-2010

Phase III 2009-2010:

- 2 vapor monitoring wells to 695 and 966 ft
 - Concentrations of VOCs and tritium decreased to total depth
 - Methylene chloride indicative of VOCs

- 1 o Monthly sampling events from 2009-2010
- 2 Summary information provided for DP Site
- 3 • First new laboratory facility was built in 1945 as part of Manhattan Project.
- 4 • DP West - plutonium process (purification, fabrication and recovery).
- 5 • DP East - polonium process (fabrication) re-tooled in the 1950s for tritium.
- 6 • DP Aggregate – sumps, outfalls, leach fields, historic waste storage areas and
- 7 process waste lines.
-

8

9 **XI. Consideration and Action on Draft Recommendation to the**

10 **Department of Energy**

11 **a. Draft Recommendation 2010-07, "Recommendation for Use of**

12 **DOE ARRA Monies by End of Calendar Year 2011 Discussed Future**

13 **Draft Recommendation Topics to the Department of Energy**

14 Ms. Henline introduced the draft recommendation. Comments from the draft

15 explained "to date, the Environmental Management American Reinvestment and

16 Recovery Act (EM ARRA) program has been extremely successful. EM ARRA funds are

17 being used in 12 states at 17 sites. However, a large portion of the EM ARRA funding

18 has yet to be used. Some sites which have been awarded money may not be able to

19 mobilize the resources needed to actually spend the money allocated to them by the

20 specified deadline. On the other hand, some sites expect to use their allocated funds

21 before or by the December 2011 deadline. These sites are good candidates to receive

22 additional funding." The draft specifically recommended:

- 23 1. DOE EM review all ARRA awards, especially the very large dollar amounts,
- 24 to assess the potential that certain funds will be unused or underutilized
- 25 between now and end of CY 2011.
- 26 2. DOE EM consider reallocating potentially unused ARRA funds to sites with
- 27 projects where they may be effectively utilized.
- 28 3. Consideration be given to sites which have received a small amount of
- 29 funding, as transfer of funds to these sites can potentially help in the
- 30 completion of major projects at these sites.
- 31 4. DOE EM should transfer these identified funds as soon as possible.

32 Mr. Phelps stated that based on a recent conversation with Ms. Catherine

33 Brennan, DOE Designated Federal Officer (DFO) that some new information had been

34 brought forth regarding this draft recommendation. Ms. Brennan had discussed the

35 draft with Ms. Cynthia Anderson, Director, EM Recovery Act Program. Ms. Anderson

36 explained that the ARRA Funding was being used wisely and well by the various sites.

37 She had informed Ms. Brennan that unused ARRA Funding allotted to a particular site

38 would stay with that site. Ms. Henline still considered this draft to be a valuable

39 recommendation but, in light of this new information from HQ, she had agreed to

40 withdraw the recommendation from Board consideration at this time. Ms. Mason and

41 Dr. Shaw supported withdrawing the draft recommendation from consideration as well.

42 Mr. Phelps stated that just by having this conversation with HQ regarding the draft

43 recommendation, in which the concept had been brought to light; that alone may be

44 sufficient at this time.

1
2 **Ms. Henline made a formal motion to withdraw draft NNMCAB**
3 **recommendation 2010-07 from consideration. Mr. Pacheco seconded the**
4 **motion. The motion to withdraw passed unanimously. The draft was**
5 **withdrawn.**
6

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8 **XII. Public Comment Period**

9 Mr. Phelps announced the board was prepared for public comment. No one
10 signed up for public comment.
11

12
13 **XIII. Open Forum for Members**

14 The members held an open discussion; comments are recorded in the taped
15 transcription of the minutes.

16 Open forum topics included:

- 17 ❖ Discussed what would be the appropriate number of presentations in one
18 meeting. Some thought three presentations in one meeting was a little too
19 much too digest. Also discussed was the appropriate level of technical detail to
20 include in the SME presentations. All agreed, however, that the presentations
21 and the cooperation from LANS and DOE was excellent and very much
22 appreciated by the board members.
- 23 ❖ Discussed well construction and data quality issues for monitoring wells, also
24 ways to annotate data in the data quality waterbase.
- 25 ❖ Facilitations at regular CAB meetings were no longer required by HQ. However,
26 for the SSAB Chairs meeting and for Board retreats and other similar functions,
27 the board would still retain a facilitator as needed.
- 28 ❖ Several comments on the meeting quality, very informative presentations and
29 good discussions were noted among the members.
- 30 ❖ Ms. Gutierrez extended an invitation to the board to attend the Santa Clara
31 Pueblo Feast Day to be held on August 12, 2010.
- 32 ❖ Mr. Phelps wanted to thank everyone for their quality participation in the
33 meeting. On a personal note, as they had held the meeting in Los Alamos, he
34 was a little disappointed that there were not more members of the public in
35 attendance. He noted the next committee meeting would be held on August 11,
36 2010 at the LANL Foundation in Espanola and he encouraged the members to
37 attend.
38

39
40 **XIV. Items from Deputy Designated Federal Officers**

41 Mr. Worth appreciated the Board's comments. He agreed that they needed to
42 find a balance with the presentations as to what was the right amount of information
43 needed by the Board to make informed recommendations to the DOE. Also, he agreed
44 to take the question of what constituted the "regional" aquifer back to the LANS Subject

Matter Experts for clarification. Mr. Worth noted the board's request for a 'primer' on what is a Corrective Measures Evaluation (CME). He also stated that they have begun the process of putting together ideas for a new series of groundwater workshops and he welcomed input from the board members on topics and frequency of workshops.

Mr. Bishop agreed they would look at the format of presentations and perhaps develop an outline of 6 to 10 slides that the SME presenters could follow that was tailored to the needs of this board. Mr. Bishop acknowledged the CAB staff for putting together a nice meeting in Los Alamos. He had enjoyed the food and the hospitality.

XV. Discussed Tasks for Hosting Fall Chairs Meeting

Mr. Bishop thanked members for providing their restaurant recommendations for the SSAB meeting brochure. To welcome the meeting participants, Ms. Novak was putting together a color brochure with visitor information about Santa Fe, the city's 400th birthday, the EMAB and SSAB meeting agendas, the LANL Site Tour agenda, board member, DDFO and CAB staff restaurant recommendations as well as quick contact information. He encouraged members to attend the meeting and act as hosts to the other SSAB meeting participants and help with the tour. Since the NNMCAB planned to host the reception and the meeting, members should be present to help welcome the guests. This event was an official CAB function and all Board members were invited to attend. The DOE would provide member reimbursement for mileage and parking.

XVI. Adjournment

Mr. Phelps thanked everyone for their participation. **With no further business to discuss, Mr. Bishop, Co-DDFO adjourned the meeting at 6:30 p.m.**

Respectfully submitted,




Ralph Phelps, Chair, NNMCAB


****Minutes prepared by Lorelei Novak, NNMCAB Technical Programs and Outreach***

Attachments:

1. **Final 7-28-10 CAB Meeting Agenda.**
2. **Report from Ralph Phelps, Chair, NNMCAB.**
3. **Report from Menice Santistevan, Executive Director.**
4. **Report from Gerry Maestas, Chair, WM Committee.**
5. **Report from Pam Henline, Chair, EMSR Committee.**
6. **NNMCAB Top Issues.**
7. **SSAB Chairs Letter to Dr. Ines Triay, subject: Recommendation on Baseline Funding Support.**
8. **Draft NNMCAB Recommendation 2010-07, withdrawn.**
9. **PowerPoint Presentation Material Disposal Area T Background and Status Update, LA-UR 105025.**
10. **PowerPoint Presentations Status of Groundwater at Technical Area 54, LA-UR 105024 and Technical Area 21, LA-UR 105089.**

Public Notice:

 ***All NNMCAB meetings are recorded in accordance with the Federal Advisory Committee Act. Audiotapes have been placed on file at the NNMCAB Office, 1660 Old Pecos Trail, Suite B, Santa Fe, New Mexico, 87505.**

 ***Reference documents listed in the Appendix section of these minutes may be requested for review at the CAB office in Santa Fe.**

***For more information regarding audio transcription or any information referenced to or contained here in these minutes, please call the CAB office at (505)-989-1662.**