To: West Valley Citizen Task Force
From: Cindy Cook and Bill Logue, Citizen Task force Facilitators
Date: November 9, 2007
Subject: **Summary of the October 24, 2007 Meeting**

Next Meeting

The next Citizen Task Force Meeting will be held as follows:

Time & Date: 7:00 – 9:30 PM, November 28, 2007
Location: **Ashford Office Complex**
9030 Route 219
West Valley, NY

Note: All participants must be United States citizens and must bring photo identification.

If you have questions or comments regarding the upcoming meeting or about this summary, please contact Bill Logue (860-521-9122, bill@loguegroup.com) or Cindy Cook (802-223-1330, ccook@adamantaccord.com).

CTF Attendees

CTF members attending: Michael Brisky, Rob Dallas, Mark Jamison, Lee Lambert, Pete Scherer, Tim Siepel, Ray Vaughan.

CTF Members not attending (nor represented by an alternate): Mike Hutchinson, Bill King, Stephen Kowlaski, Joe Patti, John Pfeffer, Bill Snyder, Eric Wohlers.

CTF Alternates Attending

CTF alternates attending: Judy Einach, Chris Pawenski, Warren Schmidt.

Agency and Other Attendees

Department of Energy (DOE): Paul Beam, Bryan Bower, Craig Rieman, Ben Underwood.

New York State Energy Research and Development Authority (NYSERDA): Tom Attridge, Paul Bembia, Ted Sonntag.

West Valley Environmental Services, LLC (WVES): Sonja Allen, John Chamberlain.

New York Office of the Attorney General: Linda White.

Observers: Bill Dibble, Shirley Dibble, Christian Eshelman, Diane Eshelman, Don Giardini, Jeff Peterson.

Meeting Summary

Cindy Cook and Bill Logue welcomed the group and reviewed the meeting documents and the meeting agenda.[1] They noted that the website would be revised in the coming months to make information more accessible and the website easier to update. CTF members will be contacted for their input.

Core Team Update

Bryan Bower of DOE stated that the Core Team had held a two-day erosion workshop. Paul Bembia of NYSERDA noted that its agency asked three erosion modeling experts to attend (Sean Bennett, Dr. Robert Fakundiny, and Dr. Mike Wilson) and that their interactions with the SAIC modelers had been productive. These experts will provide a report to NYSERDA within the next few weeks. The current model has been refined with a new calibration. The NYSERDA experts have asked for details concerning assumptions and parameters. The model is being refined further and will be made available to NYSERDA in February 2008. The Core Team will meet again on November 8 and 9 and Mr. Bower hopes that the Core Team's preferred alternative and the other alternatives to be analyzed will be finalized at that meeting. The Core Team will also discuss receptor location to be analyzed in the EIS.

A CTF member raised several concerns. One question was how a preferred alternative could be selected if the erosion information was not complete. Mr. Bower noted that a phased approach was being envisioned for decommissioning. Questions were raised about the opportunity for independent data runs with changed parameters to test the model assumptions. Mr. Bembia noted that NYSERDA would wait to hear from their experts before assessing if an independent run of data is warranted and that the CHILD Model code is the next evolution of SIBERIA, allowing for different timeframes and scales. Mr. Bower stated that the SIBERIA Model code was proprietary and he would inquire about the availability and system requirements for the CHILD Model code. He also stated that the glacial retreat of 14,000 years ago provided a good baseline to assist the SAIC modelers regarding input parameters for the landscape evolution models.

WVES Presentation

John Chamberlain of West Valley Environmental Services, LLC, presented an overview of the company's four-year work plan for September 2007 through June 2011. Work currently planned for Phase I (Interim End State activities) includes:

- management and disposal with shipment of drums of cemented waste being completed within the week;
- complete processing and shipping of approximately 87,000 ft^3 of stored low-level waste and the approximately 54,000 ft^3 newly generated waste;
- complete preparations and shipment of the vitrification melter and two process vessels; and
- prepare and package transuranic waste for shipment.

[1] The documents are listed at the end of this summary and may be found at www.westvalleyctf.org

Other planned work includes:

- preparation and operation of the vitrification facility to process and package remote-handled waste, operation of the Remote Handled Waste Facility (RHWF);
- after waste processing is completed in the vitrification and RHWF, prepare the facilities for demolition; and
- remove other facilities not planned for future use. The Main Plant Processing Building (MPPB) will be prepared for future demolition by removing contamination, conducting modeling, and obtaining permits and addressing regulatory requirements.

Additional work currently being planned for Phase II (Enhanced Interim End State activities) includes:

- drying of the high level waste tanks;
- taking mitigation measures for the Strontium-90 plume; and
- relocating the high-level canisters.

Enhanced Interim End State Presentation

Bryan Bower presented on enhancements to the interim end state which addresses work being undertaken while the Decommissioning EIS is under development. In general terms, work will be conducted as follows:

- **Interim End State**
  - Decontaminate MPPB, RHWF, Vitrification Facility and 01-14 Building
  - Ship all legacy waste
  - Remove all ancillary facilities
- **Enhanced Interim End State**
  - Cover NRC Licensed Disposal Area (NDA)
  - Manage Liquids in High-Level Waste (HLW)Tanks
  - Mitigate North Plateau Groundwater Plume
  - Investigate relocation of the HLW canisters to dry storage
- **Environmental Impact Statement (EIS) Preferred Alternative**
  - Remove lagoons (near-term)
  - Demolish RHWF, Vitrification Facility, and MPPB (near term)
  - Manage Waste Tank Farm in place (near-term)
  - Complete canister shipments (long-term)
  - Complete Waste Tank Farm closure (long-term)

Phased Approach. Conceptually the items denoted as “near-term” would be in Phase I of the Decommissioning Plan and those denoted as “long-term” would be in Phase II. Phase II will address the burial ground disposal areas, tanks, the plume, and the cesium contamination from the HEPA filter event that occurred in the 1960’s. This work will be accomplished through multiple scopes of work. Both phases will be covered under the NEPA process. Supplemental analyses may be used to amend the EIS, resulting in a second Record of Decision (ROD) for Phase II work. Mr. Bower anticipates that the NRC

Decommissioning Plan will also be submitted in two phases – one for the near term (Main Plant), and a second for the log-term actions (tanks, other buildings and the disposal areas).

Several CTF members questioned whether removing the lagoons and the Remote Handled Waste Facility (RHWF) made sense if they might be needed for future activities such as tank removal. Mr. Bower indicated that exhuming the tanks might cost hundreds of millions of dollars and that the RHWF was not designed to support tank farm exhumation. If that decision is made in the future, appropriate facilities would need to be built.

Burial Grounds. Mr. Bower stated that work, on the NRC-Licensed Disposal Area (NDA) cap is underway – the design has been approved and test borings are complete. He noted that the NDA and SDA fall into two different regulatory schemes.

Liquid Waste Management. A liquid waste management plan for the 46,000 gallons on site is being undertaken to manage current inventories and develop methods to reduce and eliminate future liquid wastes. About 60 percent of this waste, or 25,000 gallons of retrievable mixed low-level liquid waste, are in carbon steel Tanks 8D-1 and 8D-2 and stainless steel Tank 8D-4. Twenty percent is in the Supernatant Treatment System in stainless steel Tank 8D-3 and 8D-1. The remaining 20 percent is in stainless steel tanks within shielded shells in the Main Plant. The liquid volumes in the tanks are decreasing due to evaporation. Installation of tank and vault drying systems could reduce or eliminate the need for ongoing management of groundwater that infiltrates the vaults. The liquid from Tank 8D-4 will be processed to remove 14,000 curies for off-site disposal. The liquids from 8D-4, the MPPB and Supernatant Treatment System, and 8D-2 will be evaporated. The tank drying system will use a recirculating HEPA filtered dry air to remove moisture. Paul Bembia noted that NYSERDA is concerned about transferring more liquids into Tank 8D-1. The Core Team discussed a number of options for tank drying and concurred with the DOE's tank and vault drying plan.

Several CTF members inquired about when the tank drying system became available and why it could not have been installed earlier if it has been available. The use of stripping and "no-bob" pumps such as those used to empty tanks on Great Lakes ships was suggested. These pumps are designed to remove fractions of an inch of water. Mr. Bower offered to have the Liquid Waste Management Plan manager, Dan Meess, available to answer these questions at a future CTF meeting.

North Plateau Strontium-90 Groundwater Plume. Mr. Bower noted that Strontium-90 is a mobile isotope with a half-life of 30 years, that is currently traveling in groundwater north-northeastward from the MPPB area at a depth of 10 to 30 feet. The plume has "day-lighted", coming to the surface in a swale. He stated that the plume is not a health or safety concern and does not exceed regulatory limits at the site border.

A report on mitigation of the groundwater plume prepared by Geomatrix Inc. was distributed at the meeting. A number of technologies to address the plume were considered and evaluated based on implementability; effectiveness; additional data requirements; compatibility with other decommissioning actions; and costs for implementation, operation, maintenance and monitoring. In its

report, Geomatrix recommends a passive in-ground permeable treatment wall located along the leading edge of the plume at the 10,000 picocuries/liter isopleths, along with the installation of an ion exchange media layer in the ditch/swale area where the plume is currently daylighting. Subject to additional tests and development, this project could cost in the order of $5-10 million. Dr. Vincent Adams and Geologist Paul Beam from DOE's Office of Groundwater and Soil Remediation have visited the site and reviewed the conceptual plans. Draft schedules, budgets for planning, design, installation and monitoring are being developed.

Paul Bembia noted that the Core Team had discussed the wall placement and the fact that that it would not be at the leading edge. Methods to address the remaining "orphan" curies downgradient to the wall are now under discussion by the Core Team. CTF members raised questions concerning the viability of directional drilling to gain access to the source of the source of the plume underneath the MPPB. Mr. Bower noted that directional drilling might remediate mobile contamination but would not address the immobile isotopes and Strontium-90 bound with the soil under the MPPB. Mr. Bower said that removal of the MPPB and exhumation of the soil would capture these materials.

A CTF member suggested that DOE consider requiring a performance bond for the plume wall work in case it does not perform as promised.

On-Site Storage of HLW Canisters. Two hundred seventy-five canisters of high level waste are now stored in a shielded cell within the Main Plant. These canisters will need to be moved before the MPPB can be demolished. The canisters will be stored on-site for the foreseeable future – until a federal repository is available. This is likely to be at least 30 years. Storage casks from a variety of commercial suppliers are now being evaluated. These systems can be adapted from those currently used for spent nuclear fuel at nuclear power plant sites. The HLW shares many of the same characteristics as that of spent fuel. The benefits of moving the canisters out of the MPPB is that the MPBB and support facilities can be decontaminated; the canisters are closer to being shipped; and no utilities will be needed to maintain the canisters. Other on-site storage options will continue to be evaluated. The goal in removing the MPPB is to remove the Main Plant and contaminated soil so that the long-term exposure contribution from that area would be well below the 25 millirem standard. This would leave open all options for future decisions on other facilities and no further removal of material from the Main Plant area would be required under any alternative.

With respect to this and other decontamination and decommissioning work, Mr. Bower noted that, whenever possible, the goal is to take a single action with regard to handling waste and contamination to reduce the risks to workers, the public and the environment.

A CTF member commented on the need to consider the size and weight of the HLW canister storage containers from both the perspective of the ability to move/transport and from the ability to withstand potential explosions/attacks.

Mr. Bower noted there are other passive system approaches (not shown on the slide) for storing HLW canisters, such as the one at the DOE Savannah River site. A CTF member asked about the possibility of shipping the West Valley HLW canisters off site for storage to another site such as Savannah River.

Mr. Bower explained that DOE had made a national policy decision to store HLW canisters where they are until they can be shipped to a repository. This eliminates having to ship them multiple times, which reduces the risk to employees of from multiple handling cycles, and the risk to the public of possible transportation accidents. Mr. Bower commented that it would take probably 275 truck shipments or 50-70 rail shipments to move the HLW canisters to another site.

CTF Response to NRC Letter

Ray Vaughan's draft response to the letter received from the NRC on July 19 will be circulated by email for suggestions and comment.

CTF Membership and Ground Rule Amendment

The CTF invited alternate Judy Einach to become a full member of the CTF, and the agencies concurred. After discussion the CTF reached consensus to amend the Ground Rules in Section II.A.2. second sentence from a maximum 17 members to read: "However, the maximum number of Task Force Members serving at any one time is ***eighteen (18)***." (Emphasis added.) Several CTF members and the agencies expressed the desire that no future increases in membership occur. The CTF asked the facilitators to confirm that Dr. Joseph Atkinson of the University of Buffalo and Director of the Great Lakes Program remains interested in serving on the CTF.

Observer Comments

A member of the public distributed some written materials to the CTF members regarding international experience in managing radioactive waste.

Adjournment

The CTF adjourned and held a caucus.

Action Items

Action	Assigned To	Due Date
Facilitator follow-up: Reminder email on RV response to NRC, timeline to comment	Logue/Cook	October 30, 2007

Facilitator follow-up: Dr. Atkinson concerning membership	Logue/Cook	November 15, 2007
Determine in CHILD modeling code is available for an independent data run	Bower-DOE	November 28, 2007

Documents Distributed

Document Description	**Date; Generated by (if applicable /known)**
Agenda	Cook/Logue; 10/24/07
WVES Presentation – "Project Work: September 1, 2007 – June 30, 2011"	WVES; 10/24/07
DOE Presentation – "Enhancements to the Interim End State"	DOE; 10/24/07
Report: *"Focused Analysis of Remediation Alternatives for Groundwater Plume Expansion and Seepage into Surface Water"*	Geomatrix Consultants, Inc.; May 2007
Judicial Ruling on Summary Judgment Motions In Re Coalition on West valley Nuclear Wastes, et al v. Department of Energy	US District Court; 9/28/07
Compilation of News Articles	NYSERDA