To: Citizen Task Force

From: Melinda Holland, Clean Sites

Subject: Summary of May 7, 1997, Meeting

Date: May 14, 1997

Next Meeting:

The next Citizen Task Force (CTF) meeting will be on:

Date:	Tuesday May 20, 1997
Time:	7:00 p.m. - 9:30 p.m.
Location:	Ashford Office Complex 9030 Route 219, West Valley, NY

If you have questions or comments regarding the upcoming meeting or about this summary, please contact Melinda Holland at (864) 457-4202, or Tom Attridge at (716) 942-2453.

CTF Attendees:

Pete Scherer, Joe Patti, Tim Siepel, Larry Smith, Ray Vaughan, Nevella McNeil, John Pfeffer, Elaine Belt, Paul Piciulo, Tom Rowland, Rich Tobe, Bill King, Eric Wohlers, Warren Schmidt, Pete Cooney.

Not attending were: Lana Rosler, Dick Timm, and Blake Reeves.

Regulatory Agency Attendees:

NYS Department of Environmental Conservation (NYSDEC):

Jack Krajewski

Attendees via Video Conference:

U.S. Nuclear Regulatory Commission (NRC):

Jack Parrott, John Greeves, Mike Weber, Boby Eid, Tim Johnson, Heather Astwood

Science Applications International Corp. (SAIC):

Jim Hammelman, Joe Price

May 7th Issues Meeting Summary:

Tom Attridge began the meeting by addressing administrative issues. A letter responding to Ray Vaughan's letters dated March 10 and 15 was distributed to the CTF. Ray Vaughan's fifth letter to Tom Attridge and Melinda Holland was also distributed. A field trip to tour the erosion-prone areas around the site was scheduled for Saturday, June 21st , 9:00 am - 12:00 pm. Melinda Holland reviewed the agenda with the CTF.

Waste Management Area 4 and the North Plateau Groundwater Plume

The meeting began with an overview presentation of Waste Management Area 4 (WMA 4), more commonly referred to as the Construction and Demolition Debris Landfill (CDDL), and the North Plateau Groundwater Plume given by Craig Repp of West Valley Nuclear Services. After a question and answer period, Craig Repp summarized the alternatives and analysis from the Draft Environmental Impact Statement (DEIS) for WMA 4 and the North Plateau groundwater plume.[1] During the discussions which followed these presentations, a number of issues were raised.

In response to a number of questions about the source, content, and fate of the North Plateau groundwater plume, Craig Repp explained that the plume likely originated from an accidental release of radioactive liquid in a process line in the Process Building during Nuclear Fuel Services reprocessing operations at the site during the late 1960s. The liquid flowed down a wall through an expansion joint in the floor and into the soil under the building. An additional source of the plume is a closed Lagoon (Lagoon 1) which has much lower levels of contamination. The plume has migrated slowly over a 30-year period in a northeasterly direction with the primary contaminant of concern being Strontium-90. The liquid also contained equal amounts of Cesium-137, however the Cesium remains primarily bound to the soil immediately under the building and does not appear to be migrating.

After the installation of groundwater monitoring wells in 1989-90, Strontium-90 was discovered in the groundwater around the Process Building. In December of 1993, elevated levels of Gross Beta were detected at the surface water monitoring point (DMPNE) at the northern edge of the north plateau. In 1994, a comprehensive groundwater sampling program was conducted using the "Geoprobe" technology, a less invasive and expensive method of collecting groundwater samples than installation of groundwater wells. The results of the Geoprobe sampling program showed the Strontium-90 contamination to be moving downgradient of the Process Building. To address the preferential pathway of groundwater contamination, a pump and treat system was installed in September of 1995 to mitigate the movement of contaminants near the leading edge of the plume, upgradient of the CDDL. The pump and treat system "groundwater capture area" is periodically assessed and is currently capturing over 95 percent of the Strontium-90 in the groundwater. It was noted during the presentation that portions of the CDDL are now radiologically contaminated due to groundwater flow into the CDDL that occurred prior to installation of the pump and treat system.

---

[1] For copies of the materials distributed at the meeting please call Sonja Allen at [716] 942-2152.

Concerns were raised by several CTF members as to (1) why a pump and treat system was not installed to remove the high concentrations of contamination near the source (estimated in excess of 1,000,000 picocuries per liter) and (2) why it took so long to install a mitigative measure. DOE responded that many factors were considered as part of the decision making on how to mitigate the contamination of the plume and to ensure that public health and safety is maintained. First, it was mentioned that the DEIS analysis shows that the plume is not a threat to public health and safety. DOE also noted that considering the time it takes to appropriately investigate the nature and extent of contamination and install the appropriate treatment equipment, actions to mitigate off-site releases have been responsive. In addition, DOE is concerned about taking any additional actions until a remedy is reviewed and selected for the entire site. To decide on a cleanup approach for one portion of the site could limit or prejudice later decisions on how to deal with the remainder of the site. Therefore, the Project has been focused on determining more efficient, cost-effective methods for addressing the plume, and methods that would generate less waste (than using the conventional pump and treat technology for the entire plume). DOE's preference is to use the ongoing EIS decision-making process to determine the best final solution for this contamination, however, if the Record of Decision is significantly delayed, or there is cause for concern in terms of potential off-site releases, this may need to be reconsidered. DOE therefore added that the CTF's comments would be taken under advisement.

In response to other questions, the following responses were provided:

Thus far, the pump and treat efforts focus only on mitigating a preferential pathway near the leading edge of the plume, upgradient of the CDDL. The current pump and treat system costs approximately $600,000 to $1,000,000 a year to operate depending upon weather conditions. A State Pollution Discharge Elimination System permit modification for treating and discharging groundwater has been applied for and will be issued by NYSDEC shortly.

It was also noted that DOE is self regulating for most radiological issues at the site. DOE assumed operational control over the central, 200-acre portion of the site per the West Valley Demonstration Project Act. The NRC license for the site has been put in abeyance to conduct the West Valley Demonstration Project. Because DOE is self regulating, it follows the guidelines contained in DOE regulations and orders in determining action levels for containing and treating the plume to assure the protection of public health and safety. DOE's Discharge Criteria Guide for Strontium-90 is 1,000 picocuries/liter, at which point action is required to perform analyses to determine if appropriate action is necessary to maintain the off-site exposures "As Low As Reasonable Achievable" (ALARA). NYSDEC added that it does not have jurisdiction over radiological issues for the Project premises.

There was also considerable discussion regarding ways to mitigate the north plateau groundwater plume. It was noted that the contamination is contained within an upper sand and gravel unit (which is 15-30 feet deep) and moves downhill toward Franks Creek, exiting the plateau as surface water. Several CTF members suggested diverting groundwater upgradient from the source of the contamination (Process Building) in addition to capping the entire area to reduce the groundwater flowing to the plume area.

In response to a question by a CTF member on the differences between rail and truck transportation costs, it was noted by SAIC that the total cost of shipping waste by truck under Alternative I amounts to only two percent of the total cost of the remedy, thus any savings achieved by rail shipment would be very small in relation to the clean-up costs. To implement Alternative I, the Process Building would require removal to get at the contaminated soil underneath the building. It was also noted that plume remediation TO the 1,000 picocurie per liter level under Alternatives III and IV by pump and treat would take in excess of 40 years and require additional wells.

To completely exhume the contaminated soil and CDDL material, which the plume has contaminated, would take approximately six to 10 years. Based on Strontium 90's half-life of 28 years, it would take about 250 years for the Strontium-90 in the plume to decay to a point where the plume would no longer represent a health and safety threat on the plateau.

In terms of current field studies, a second lobe of the leading edge of the plume, not contained by the existing pump and treat system, is being characterized this summer using the Geoprobe sampling equipment.

Next Steps

CTF Schedule

Tom Rowland, DOE, explained that the pressure to speed up the CTF schedule, which he expressed at an earlier CTF meeting, has been alleviated in part by a change in the way DOE is doing its budget planning and that the site is more likely to have adequate funding in the budget for the next several years. Mr. Rowland, nevertheless, encouraged the group to move along in a professional manner. Paul Piciulo, NYSERDA, added that he wants the CTF to take the time it needs to develop its recommendations. Several CTF members stated that they wanted adequate time to accomplish their mission, but also need a deadline to drive the process to completion before people lose interest.

A CTF member requested that time be set aside at the May 20th meeting for CTF members to hold a separate caucus session at the end of the meeting. The first part of the May 20th meeting will be a discussion with NRC officials. The schedule will be changed to accommodate this by moving the discussion of WMA # 3 to a later meeting.

Next, CTF members discussed how they are to proceed after the WMA presentations are complete. Melinda Holland and Tom Attridge reminded the CTF that the process of developing recommendations is theirs to design with the help and support of the facilitator and site resources. DOE indicated that the CTF could request site resources to develop one or more "strawman" approaches for closing the site. It was also suggested that the CTF could work with DOE and NYSERDA to develop an iterative process to come up with recommendations on a preferred alternative for the site. Further discussion will be held on this subject during the CTF member caucus at the next meeting. A CTF member raised a concern about waiting until July to have another issues meeting and suggested that the schedule be addressed at the May 20th caucus.

Observer Comments

An observer mentioned that levels of Strontium-90 in some of the monitoring wells were in excess of 100,000 times above background to remind people of how radioactive areas of this plume are.

Action Items

- Provide an estimate of the radioactive "source term" for the North Plateau plume
- Revise the schedule based on CTF input