

TO: Citizen Task Force
FROM: Melinda Holland, Clean Sites
SUBJECT: Summary of August 6, 1997 CTF Meeting - **Revised**
DATE: August 13, 1997

Next Meeting:

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

Date: Tuesday, August 19, 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:

Attending were: Pete Scherer, Joe Patti, Ray Vaughan, Nevella McNeil, John Pfeffer, Elaine Belt, Paul Piciulo, Tom Rowland, Bill King, Blake Reeves, Warren Schmidt, Lana Rosler, Larry Smith, Pete Cooney, Eric Wohlers, and Lou Brehm (for Rich Tobe). Not attending was Tim Siepel.

Agency Attendees:

Jack Krajewski and Bill Tetley, New York State Department of Environmental Conservation (NYSDEC)

Attending via video conference were:

Jack Parrott, Tim Johnson, Rick Weller, Jennifer Davis, John Greeves, Margaret Federline, Bill Reamer, NRC; Andy Wallo, DOE; Jim Hammelman and Patti Swain, SAIC.

August 6th Meeting Summary

Tom Attridge began the meeting by addressing administrative issues. Melinda Holland reviewed the agenda and requested comments on the summary of the July 15th meeting. Errors in the attendees list and meeting date were pointed out, a revised summary will be mailed which includes those corrections.

Waste Management Area #3

Dan Westcott, WVNS, gave a presentation on Waste Management Area (WMA) #3 which includes the high level waste tanks and the vitrification facility.¹ The responses to questions and issues raised by CTF members on WMA #3 are summarized below.

The liquid high-level radioactive waste in the four tanks are being incorporated into glass through the vitrification program. Mr. Westcott explained the process of mixing and removing waste from the tanks and feeding it to the vitrification facility. The vitrification facility was constructed by DOE in a manner to allow decontamination. Nuclear Fuel Services, the original operator, did not have a system for waste treatment, only storage.

The bottoms of tanks 8D-1 and 8D-2 contain a steel grid structure which was attached to the bottom of the tank with continuous welds. Dan Westcott used a full-scale model of a portion of the grid structure to show how difficult it will be to remove waste from the bottom of the tanks. A system for flushing wastes from this grid structure is being developed.

The DEIS assumed that three percent of the activity in the tanks would remain after vitrification was complete. Using improved techniques and technology it is hoped that more of the tank heel can be removed and vitrified, however the impact estimates are based on the three percent assumption.

Alternatives IV and V for WMA #3 in the DEIS are both considered "no action" alternatives as Alternative IV assumes continuing current maintenance (e. g., no change) and Alternative V assumes total abandonment of the site. (For purposes of complying with NEPA, Alternative IV was presented in the DEIS as the "No Action" alternative.) Assumptions used in Alternative IV as presented in the DEIS resulted in underestimates of risk and cost, thus the site is currently recalculating those numbers to develop more accurate estimates. That information will be provided to the CTF as soon as it is available.

The DEIS information showed that Alternative III for WMA #3, as designed, would not meet regulatory requirements. To evaluate this further, the closure designs for Alternatives IIIA and IIIB were improved to significantly reduce the potential for future releases of contamination. Those improvements were factored into a new performance assessment which showed greatly reduced dose numbers which are reflected in the graphs presented during the meeting. Those revised numbers and the new design will be reviewed by NRC. A CTF member noted that the estimated peak dose to the North Plateau Intruder had gone down by six orders of magnitude from the DEIS. Based on the re-engineered designs, Alternatives I and III have peak intruder does of less than 500 mrem/yr, but Alternative II exceeds the 500 mrem/yr NRC standard.

The DEIS analysis concluded that erosion did not impact WMA #3. A CTF member disagreed with this, stating that over time gully growth could be a significant threat to wastes left in the

¹ Copies of the presentation materials distributed at this meeting may be obtained by calling Sonja Allen at (716) 942-2152.

tanks or buildings. A discussion ensued over the nature of the improvements to the design for Alternative III and how they would prevent release of contaminants even over extended time frames. (the view graphs used during this part of the discussion are attached to this summary). The CTF member was also concerned about the possibility of voids in the grouting under the tanks which could allow ground water to move up and into the grouted tanks over time. A site representative responded that there are four layers of protection for the bottom of the tanks and that the grouting technology is greatly improved thus they do not anticipate void spaces. Concerns were also raised over oxidation of the grout encapsulated steel grid system within the tanks which could potentially create voids over time in the multiple-barrier waste form. Agreement was not reached on these issues, and the CTF member concluded that he would agree to disagree with site representatives for the time being.

The newly developed high-pH grout which would be used to fill the tanks and vitrification facility under Alternative III incorporates reducing agents and sorbents which will immobilize radionuclides and prevent or greatly inhibit their leaching if acid rainwater ever came in contact with the grout. The main concern is the longer half-life materials such as Neptunium-237 and Technetium-99, as the grout would not break down or leach during the period for shorter half-life materials such as Cesium-137 and Strontium-90. Consistent with NRC decommissioning requirements, Alternative III relies on indefinite institutional controls, however, no credit was taken for institutional controls beyond 100 years in the performance assessment.

Even if the majority of the estimated three percent heel in the tanks can be removed and vitrified, the site would use the improved Alternative III design if that alternative was selected for closure.

Under Alternatives I and II a containment structure would be built over the areas to be exhumed, that structure would become contaminated to some degree and would need to be decontaminated and/or disposed of as low level waste at the conclusion of the project.

A CTF member inquired whether it would be possible to reduce the footprint of the site by consolidating wastes from other WMAs into the tanks before they are grouted. It would not be practical to do so due to the fact that the tanks are forty feet underground and have very small openings. Glass produced by in-place vitrification could not be used instead of grout because it would require removal of the metal tank structures which if left in place would short circuit the high current needed to fuse the materials into glass.

The DEIS assumed for purposes of Alternative II that the glass logs remained at the site indefinitely. However, DOE is committed to removing the logs to a Federal repository when it becomes available.

Some of the techniques for closure in place of high level waste tanks discussed above (the re-engineered Alternative III) are currently being used at the Savannah River DOE facility, thus the cost estimates for Alternative III are believed to be fairly accurate. The cost estimates for Alternative I may be more uncertain; information from other sites shows the potential cost for a "remove-all-wastes" alternative to be as much as ten times higher than the "close-in-place" alternative.

Next Steps

The next meeting (August 19th) will cover WMAs 2 & 6. The September 3rd meeting will focus on WMA #1 thus concluding the WMA presentations.

CTF members were reminded to hand in their list of values or evaluation criteria which they would like to see used in developing a closure approach for the site. A process to categorize, consolidate, prioritize, and reach consensus on these values and criteria will be proposed at a future meeting.

Ms. Holland asked the CTF if they wanted to continue to pursue amending the CTF ground rules to allow addition of new members. The CTF members who had proposed at the last meeting to add a new member and a new ground rule withdrew their motions stating that they preferred that decisions on whether to add or replace members should be made by NYSERDA and DOE. No members of the CTF disagreed with these recommendations so the issue of amending the ground rules to provide a procedure for adding new members was dropped from consideration.

Observer Comments

A representative from the League of Women Voters (which had been proposed for membership at the prior meeting) stated that their primary concern at this time is that the CTF process be an open process and allow members of the public more opportunity to participate in the discussions. Ms. Holland responded that observer comments could be taken twice during each meeting to allow observers more opportunity to participate in discussions. A CTF member stressed that observers were encouraged to forward concerns and questions to CTF members for inclusion in the discussions.

Another observer requested that Jim Hammelman provide the DEIS numbers for WMA #3 and explain the basis for the significantly reduced numbers presented tonight. Mr. Hammelman agreed to work with site representatives to determine the best way to present this information.

Action Items

- Provide revised CTF schedule when available
- Provide information on the basis for the reduced numbers presented for Alternative III as compared to the DEIS numbers
- Recalculate the cost estimates for Alternative IV

Attachments

- View graphs showing re-engineering of tank closure for Alternative III