

To: West Valley Citizen Task Force
From: Bill Logue, Citizen Task Force Facilitator
Date: April 14, 2017
Subject: **Summary of the March 22, 2017 Meeting**

Next Meeting

Date & Time: **June 28, 2017, 6:30 – 9:00 PM**
Location: Ashford Office Complex
9030 Route 219
West Valley, NY

CTF Members and Alternates Attending

Rob Dallas, Clyde Drake, Barbara Frackiewicz, Heidi Hartley*, Paul Kranz*, Eric Lawton, Tony Memmo, Joe Patti, Ray Vaughan, Eric Wohlers.

Agency Participants and Observers

Department of Energy (DOE): Bryan Bower, Martin Krentz, Moira Maloney, Audrey Seeley, Zintars Zadins.

New York State Energy Research and Development Authority (NYSERDA): Paul Bembia*, Janice Dean*, Brad Frank, Lee Gordon, Andrea Mellon.

CH2M HILL BWXT West Valley, LLC. (CHBWV): Scott Anderson, Lynette Bennett, Jeff Bradford.

Nuclear Regulatory Commission (NRC): Mark Roberts*.

New York State Department of Environmental Conservation (NYSDEC): Pat Concannon, Ken Martin.

Public: Diane D'Arrigo*, Paul Siepierski, Barbara Warren*.

INTRODUCTIONS, ANNOUNCEMENTS, ADMINISTRATIVE BUSINESS

Bill Logue welcomed all present and reviewed the meeting agenda and materials¹. The group welcomed Tony Memmo who returns to the CTF as the representative of the Seneca Nation of Indians. Lee Gordon of NYSERDA led a brief discussion of the selection process for the CTF facilitation contract.

CHBWV PROJECT UPDATE

Scott Anderson of CHBWV presented a project update including the Vitrification (Vit) Facility Demolition Plan. Mr. Anderson noted that representatives of the agencies, CHBWV and the Seneca Nation had attended and participated in panel discussions at the 4-day Waste Management Conference in Phoenix, Arizona. He also expressed appreciation to the Town of Ashford for responding to a request that the access roads to the facility be prioritized in snow plowing to allow workers to reach the facility safely.

Safety. Mr. Anderson noted that the site had achieved more than 1,585 days without a lost time injury or accident.

2017 Goals include perform work safely and compliantly; complete relocation of legacy waste from the Main Plant Process Building (MPPB); contingent on funding, begin demolition of the Vit Facility and shipment of Vit debris; continue MPPB deactivation; and, contingent on funding, continue reconfiguration of water, natural gas, electric and communications infrastructure. The MPPB deactivation is 62% complete and Vit Facility deactivation is complete.

Vitrification Facility Demolition Plan. Building History. Mr. Anderson displayed images of the Vit Facility location and the Vitrification Cell prior to start and following equipment removal. He briefly summarized the history noting that it was constructed solely to vitrify the liquid High-Level Waste (HLW). Components were initially constructed in 1983 and the facility was completed in 1996 and the vitrification process was started at that time and completed in 2002. The vit components were removed and packaged in 2005. The components were disposed of in 2016. From 2006-2013 the facility was used for supplemental waste processing. In 2013

¹ Each is listed at the end of this summary and may be found at www.westvalleyctf.org

* Participated by telephone.

deactivation began and the facility is now ready for demolition.

Regulatory Requirements. Mr. Anderson reviewed the regulatory requirements from DOE, EPA and NRC. The DOE regulations set standards for management of radioactive wastes and for various levels of radiation exposure for workers and the public (5,000 mrem/year for radiation workers and 100 mrem/year for the public and non radiation workers; CHBWV has Administrative Controls of 500 mrem/year for the radiation workers and 1,000 mrem/year for a portion of this workforce). EPA sets emissions standards for radionuclides in the air, such as those released through the demolition process (10 mrem/year across the site with approval and 0.1 mrem/year without specific approval) and standards for buildings with asbestos. NRC sets decommissioning standards pursuant to the WVDP Act. A CTF member asked about exposure to the public through water. Mr. Anderson stated that the 0.1 mrem standard is applicable regardless of the exposure pathway.

NYSDEC establishes standards for interim status operations and closure of the hazardous waste management units and the discharge of waste water. The U.S. Department of Transportation regulates the packaging, labeling and transportation of hazardous materials including radioactive waste. The New York State Department of Labor establishes standards for removal of asbestos.

Demolition Preparation. CHBWV will take a number of steps to ensure the safe and environmentally protective facility demolition pursuant to the regulations and in keeping with As Low As Reasonably Achievable (ALARA) principles. This will include characterization through radiological sampling and contamination surveys. He noted that at the start of preparation the Vit Cell had 1,900 curies and had not been entered by workers in decades. It now has less than one curie. Airborne dispersion modeling will identify the type, quantity and location of contamination in the structure during demolition and define exposure restrictions at the control boundaries for the workers and public. It will account for contamination levels, contaminant emission rate (based on rate of and method demolition) and the weather conditions based on WVDP data. The AERMOD model will be used for worker dose and CAP-88 for public dose. In response to a question Mr. Anderson committed to inform the CTF of the exposure pathways, particularly water, modeled in CAP-88.

Demolition will occur primarily by hammer and saw attached to large machinery (this is how the 01-14 Building was demolished). Dust control is by application of fixatives to surfaces during deactivation and fogging/misting of the facility and the waste pile during demolition. Storm and surface water will be managed and work stopped based on certain weather conditions or air monitoring controls. Deactivation and decontamination was accomplished through removal of hazardous equipment and materials, floor and wall washing, sealing of wall penetrations and floor grouting, de-energizing and isolation, and applying fixative to residual contamination. Cell walls are 2-4 feet thick and debris will be sized as large as possible while still fitting in the intermodal containers.

Demolition Approach and Safety. Demolition will occur from the exterior inward. The plan is reviewed and approved by DOE and reviewed and commented on by NRC. Workers will wear dosimeters, personal protective equipment and there will be air monitoring. A plan for each day will be reviewed before the start of work and will include a computer 3-D walkthrough. Access will be restricted and there are demolition “Hold Points” before the next step is undertaken. Air monitoring and modeling is approved by the EPA and will include real time monitoring in the demolition area and additional monitors at the demolition boundary and off-site perimeter. Mr. Anderson displayed images of the monitoring locations and equipment and access boundaries. In addition, water and dust will be managed, debris pile sizes limited, and fixatives applied. A detailed final survey will be conducted.

Waste Management and Disposal. The Vit demolition will produce about 6,700 tons of debris that will be loaded into 25-cubic yard intermodal containers. The debris is projected to be Class A LLW. The debris will be shipped by truck or truck and rail to the Nevada National Security Site, Energy Solutions in Utah or Waste Control Specialists in Texas. There will be 450 total shipments, 15 per week on average. The shipping cost is about \$15,000 per load. Demolition will start when funds are available, most likely in October 2017, and will take 8 months.

NYSERDA PERSPECTIVE ON WASTE RECLASSIFICATION

Brad Frank of NYSERDA presented the NYSERDA View on defense origin waste at the Western New York Nuclear Service Center (WNYNSC). In June 2016 NYSERDA submitted comments on DOE’s consent based siting process clarifying the agency’s perspective on the legal status of HLW based on records NYSERDA has from Nuclear Fuel Services (NFS). In October 2016 the New York Congressional delegation sent a letter

requesting that the HLW be classified as defense waste to correct a historical misclassification. In January 2017 DOE responded to Congress stating that there was merit to considering the disposal of West Valley HLW and defense HLW in the same repository. Discussions are ongoing.

Mr. Frank reviewed the history and effect of the DOE “commercial” designation for West Valley. He noted the facility was created as the only commercial spent nuclear fuel (SNF) reprocessing facility and that the records show significant ties to the defense industry. In 1986 the DOE Inspector General took the position that the facility was “commercial”, a term the Nuclear Waste Policy Act (NWPA) does not use for waste, instead referring to waste as civilian or defense. He went on to review how different interpretations impact where the HLW and TRU waste could be disposed and the fees to the State of New York.

He then presented the NYSERDA view that the NWPA lacks the term “commercial” and uses “civilian” and in defining “atomic energy defense activity” includes in part “... (C) verification and control technology; (D) defense nuclear materials production; (E) defense nuclear waste and materials by-products management...” Mr. Frank noted that these activities were performed at West Valley. He then reviewed the nuclear fuel cycle and stated that the facility was the result of federal policies and initiatives and the Atomic Energy Commission (AEC) included incentives such as making classified technology available and providing a guaranteed baseload of SNF for reprocessing until a sufficient number of commercial power reactors were online and providing SNF.

Approximately 60% of the SNF reprocessed came from the N-Reactor at Hanford that was producing both electricity and Plutonium for weapons, including shipments received before electricity was produced. Mr. Frank also cited other information NYSERDA believes supports their interpretation including shipment of Plutonium and Uranium to the AEC defense complex, management of defense waste and by-product, and contracts with the U.S. Air Force that appear to be related to intelligence support for assessing nuclear threats.

DOE has maintained that New York State would have to pay a disposal fee and turn over the “perpetual care fund” which DOE maintains is inadequate. In 2002 the disposal fee was estimated at \$228 million and is likely much higher now. The perpetual care fund contains about \$29.2 million which NYSERDA is prepared to release upon delivery of the HLW to a federal repository. Mr. Frank concluded by summarizing the NYSERDA perspective that the HLW waste at West Valley is defense in origin rather than civilian or commercial and should be disposed in a federal defense repository if one is developed and that the federal government be responsible for disposal costs under the NWPA and that the West Valley TRU waste is eligible for disposal at the Waste Isolation Pilot Plant under Land Withdrawal Act.

DOE UPDATES

Budget. Bryan Bower of DOE provided an update on the WVDP budget. The government is operating under a continuing resolution (CR) through April 28, 2017. The only current information available is the American First Blueprint, released by President Trump and available online. One and one-half pages of the Blueprint are devoted to DOE and the Office of Environmental Management, which includes West Valley, line item is \$6.5 billion. This amount is larger than budgets in recent years. The FY 2017 request for the WVDP was also higher than previous years; however, under the continuing resolution spending is at a lower FY 2016 level and considerable funds were expended on the shipping and disposal of the Vitrification Components and HLW relocation.

Supplemental EIS/Decommissioning Plan. The SEIS is in the procurement process, when an update is available it will be provided.

Probabilistic Performance Assessment (PPA). Zintars Zadins provided an update on the PPA. The Features, Events, Processes and Scenarios (FEPS) Report is complete and is available on the www.wv.doe.gov website. The Conceptual Site Model Report is being finalized with agency comment and should be available on the www.wv.doe.gov website in late April or May. The GoldSim Model is being developed and will include about 100 facilities and areas with radiation sources within the WNYNSC. Radionuclide and chemical inventories are being compiled for the facilities and areas to be evaluated in the GoldSim Model. Neptune, the PPA contractor, is coordinating with the Phase 1 Studies Erosion Working Group (EWG) on how to bring in information from the EWG Landscape Evolution Model at a simplified level. A CTF member, supported by several observers, reiterated their request for a workshop on how this is being done including the erodibility assumptions. Mr. Zadins noted that the 2010 FEHM Groundwater Model was outdated and a new 3-D FEHM Model is being developed that will have the capability of modeling subsurface barriers more effectively. The PPA website will be

a repository for white papers, reference materials and a GoldSim “player” where the public can view input parameters, model assumptions and results. The website will need to meet DOE cyber security requirements before it goes online.

PHASE 1 STUDIES UPDATE

Lee Gordon of NYSERDA provided a brief update on the Phase 1 Studies. He noted that the likely sequence for 2016 Quarterly Public Meetings (QPM) would include presentations by the EWG and Neptune on the PPA in May, the EWG and ExWG in August and perhaps Neptune and the EWG in November.

Erosion Working Group. Study 1 – past glacial history – field and lab work is complete and the draft final report will be submitted to the agencies within a month. It will then be posted online. Data is being fed into the Neptune PPA modeling for the Conceptual Site Model and GoldSim. Study 2 – recent and current erosion processes – the fieldwork is complete and the report is being finalized. Site specific data on erodibility is being provided to Neptune. Later this spring a report based on the 2015 LiDAR data will be released. Study 3 – modeling – the code is mostly complete for the Landscape Evolution Model and it is being tested, calibrated and the uncertainty analysis performed. Mr. Gordon committed to discussing with the EWG and Neptune how the “handshake” of data from one model to the other will be handled.

Exhumation Working Group (ExWG). Study 1 – inventory analysis – is complete and available online. The ExWG is now looking at selective exhumation scenarios based on the quantities, locations and benefits. This report should be complete this spring and presented at the August QPM. Study 2 – fieldwork to estimate inventories. The report on the SDA geophysical study via five different methods should be available soon and might be ready for a presentation at the April CTF or May QPM. Study 3 – exhumation technology – should be forthcoming for the August QPM.

A CTF member asked if the different estimates of Pu-238 in the burial grounds in the two EIS documents could be addressed probabilistically. Mr. Gordon stated that Neptune was aware of these two reports and comments and Mr. Zadins stated they will most likely be addressed probabilistically and that Ralph Wild will likely be involved.

OTHER CTF COMMENTS/QUESTIONS

In response to a question NYSERDA representatives noted that the SDA leachate levels in Trench 14 are increasing at 1.05 inches/year and in Trench 1 at less than 0.5 inches/year. Field studies are ongoing to identify the source of the increases. Twenty-four piezometers have been installed. The report is due to NYSERDA in September 2017, and NYSERDA will provide an update on this report later in the fall.

OBSERVER COMMENTS

An observer inquired about the records NYSERDA used in establishing its view on waste reclassification. In response to another question, Ms. Mellon of NYSERDA stated that, due to lifecycle issues, a new geomembrane cover would be installed on top of the current cover over Trenches 1-12. The original cover was installed in 1995.

ACTION ITEMS

Action	Who; When
Confirmation of CAP-88 Model transport pathways	CHBWV; Next CTF Meeting

DOCUMENTS DISTRIBUTED

Description	Generated by; Date
Meeting Agenda	Logue; 3/22/17
Project Update	CHBWV; 3/22/17
NYSERDA View on the Defense Origin of the West Valley Waste at the WNYNSC	NYSERDA; 3/22/17
Probabilistic Performance Assessment Update	DOE; 3/22/17
News Clippings Distributed at Meeting	NYSERDA; 3/22/17