

West Valley Demonstration Project

Bryan Bower

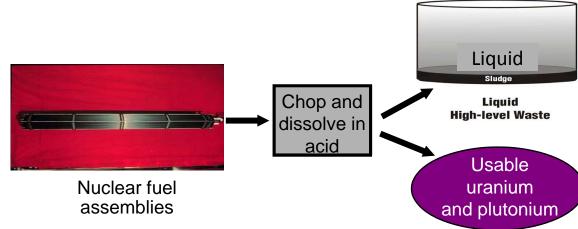
DOE WVDP Director

March 8, 2017

Early History

- The West Valley facility was the only commercial spent nuclear fuel reprocessing plant to operate in the U.S.
- It operated from 1966 –
 1972, processing 640
 metric tons of spent fuel
- It shutdown in 1972 for modifications and never resumed operations
- The site and facilities are owned by the New York State Energy Research and Development Authority (NYSERDA)

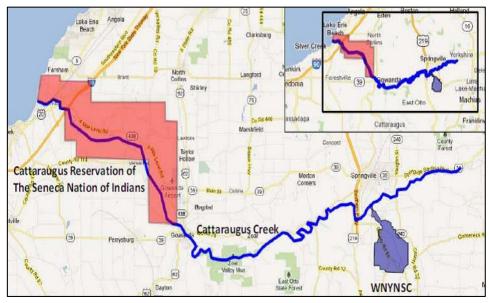




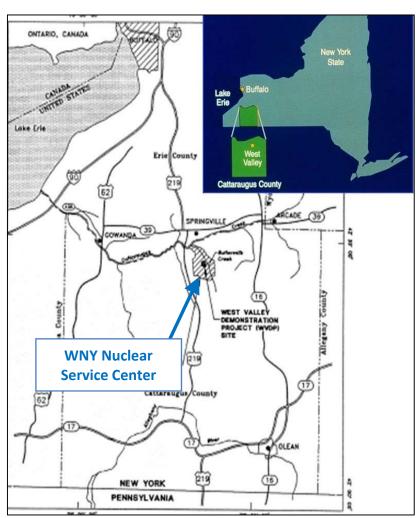
Western New York Nuclear Service Center

NYSERDA holds title to the entire Western New York Nuclear Service Center (WNYNSC) on behalf of the State of New York The Center is:

- 3,330 acres in northern Cattaraugus County.
- 15 acres in southern Erie County.



Map of Cattaraugus Creek from the WNYNSC to Lake Erie



1980 West Valley Demonstration Project Act

- Congress held hearings and directed the DOE to study options for the future of the Center
- Congress passed the West Valley Demonstration Project (WVDP)
 Act in 1980, establishing the HLW solidification and decommissioning project at the site that would be led by DOE
- DOE took possession of ~150 acres of the Center in 1982



President Carter Signs the WVDP Act



By Bob Dearing

By Bob Llearing
counts toreas stars serverse

The long-delayed cleanup of the
set Valley maclear storage sits got
major boost yesterday as New
chi Dalate and the sits's former opator reached agreement on a my-

yet been datuisied. Some estimates have placed the cost as high as \$100 million.

The agreement also calls for the state and NPS to apportion liability for the cleanay, NPS agreed to be responsible for any problem that can be traced to its past practices at can be traced to its past practices.

PRIOR. Pelaised the agreement and said and all the major insome had been and all the major insome had been and all the major insome had been and all the courtroom and fine print and the courtroom and fine print and back to what so many have worked for these five long years to accomplain; a program to get these miclear wastes inote a form that will permit!—The fail and principle-temporal to the dail and principle-temporal to the dail and principle-temporal their dails and principle temporal their dails and principle their dails and principle temporal their dails and principle their dails and principl

Tuesday, March 9, 1982

DOE Takes Over At West Valley Nuclear Fuel Site

The Department of Energy has taken control of the former nuclear fuel reprocessing complex in West Valley, N.Y., following a heavy gush from Sen. Daniel Patrick Moynihan (D-N.Y.) and Rep. Stanley Lundine (D-N.Y.). Until Moynihan and Lundine intervened, the state of New York, which owns the site, and Nuclear Fuel Services, Inc. (NFS), which operates the plant and still has possession of it, had been at loggerheads over the transfer.

DOE was ready to start work at the site last October. Some 600,000 gallons of liquid, high-level radioactive wastes are sitting in tanks, the result of commercial nuclear fuel reprocessing done between 1966 and 1972 at the plant located 30 miles southeast of Buffalo. NFS decided in 1976 to get out of reprocessing. A 1980 law provided for a DOE-run cleanup at West Valley.

But the New York State Energy Research and Development Authority and NFS—a subsidiary of Getty Oil Co.—were unable to agree on how the turnover should come about. NYSERDA wanted NFS to turn the site directly over to DOE. NFS preferred relinquishing the site to the state, then having the state turn it over to Uncle Sam.

Liability for spent fuel still at

Transfer of N.F.S. Facility to be Made at Midnight this Thursday

by Tom Reitz

, Transfer of operational control of the facility from its presend operator, Nuclear Fuel Services, to the DOE's operating contractor, West Valley Nuclear Fuel Services, Co., a subsidiary of Westinghouse, will be accomplished Thursday night at midnight, February 25, 1982. A press conference and facility tour for the media will be held at 10 a.m. Friday. Pebruary 26, 1982.

The U.S. Department of Energy and its operating contractor, were notified late last week that New York State and Nuclear Fuel Services were prepared to effect transfer of the West Valley Demonstration Project premises and facilities to the U.S. Department of Energy for the purpose of the West Valley Demonstration Project Act.

The agreement by the State of New York and Nuclear Fuel Services, signed by Federal Judge John T. Elfin, marks the end of a hattle that has delayed the take over by the Federal Department of Energy and work leading to the eventual demonstration project to clean up the high level nuclear wastes.

The wrangling between the State and the N.F.S. has been going on for more than thirteen months and, following this settlement, planning and work will probably take place for approximately eighteen years before the The Federal Government will pick up 90% of the total cost and, after the project is completed, the land and buildings will become the property of the State of New York. Total cost is now considered to reach at least \$400

James LaRocca, the Chairman of the New York State Energy Research and Development Authority, pledged that the cleanup "will get those nuclear wastes into a form that will permit their safe and prompt transfer from West Valley to a federally owned permanent repository." There is no such repository at present, but sometime in the future, it is expected that there will be such a

The Getty Oil Co., which owns N.F.S., will remain involved unit the final settlement is reached on the low-level nuclear washourial ground containing contaminated materials ranging from medical-wastes to animal carcasses used in scientific research.

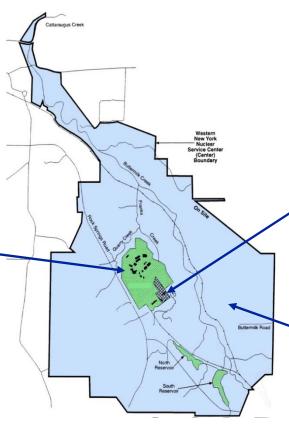
Western New York Nuclear Service Center

The Center is presently divided into three operational areas



WVDP Premises

- State owned
- DOE-managed
- ~ 150 acres





State-Licensed Disposal Area

- State Owned
- State-managed
- 16 acres

Retained Premises

- State Owned
- State-managed
- ~ 3150 acres

West Valley Demonstration Project Act

The WVDP mission was defined by an act of Congress in 1980 – Public Law 96-368

1. Solidify the liquid HLW at the Center

Completed

2. Develop containers suitable for permanent disposal of HLW

Completed

3. Transport the solidified waste to a federal repository for permanent disposal

Pending repository

4. Dispose of Low-Level radioactive Waste (LLW) and Transuranic (TRU) waste*

In progress (LLW)
No disposal path (TRU)

5. Decontaminate and decommission the underground HLW tanks, facilities and any material and hardware used in connection with the project

In progress

^{*} WVDP TRU waste is non-defense in origin

EIS Alternatives Analysis

- DOE and NYSERDA issued a joint decommissioning and/or long-term stewardship Environmental Impact Statement (EIS) in January 2010
 - The EIS analyzed four alternatives:
 - Sitewide removal
 - Sitewide close-in-place
 - Phased decision making
 - No action
 - Phased decision making alternative was selected by both DOE and NYSERDA

OFFICE OF ENVIRONMENTAL MANAGEMENT

WVDP Decommissioning Phased Decision Making

In 2010, DOE published the Final Environmental Impact Statement and Record of Decision (ROD) for Decommissioning and/or Long-Term Stewardship at the WVDP and the WNYNSC

- Phased Decision-making ROD
- Phase 1 Decommissioning Plan

- Final Decommissioning ROD
- Phase 2 Decommissioning Plan

Phase 1 Decommissioning (Complete by 2020*)

Phase 1 Facility Disposition

- Relocate 275 HLW Canisters to new dry cask storage facility
- Demolish Vitrification Facility (VF) and Main Plant Process Building (MPPB)
- Remove ancillary facilities
- Ship legacy LLW

Phase 1 Soil Remediation

- Remove below grade portion of MPPB (including source area of plume), VF, 01-14
- Remove Lagoons and Liquid Waste Treatment Facility
- Ship Legacy TRU Waste
- Remove Remote-Handled Waste Facility and remaining ancillary facilities
- Remediate all Waste Management Area 1 & 2 Soil
- * Based on funding at \$75 M/yr

Phase 2 Decommissioning (Decisions made by 2020)

Phase 2 Decisions

- HLW Canister Shipment (permanent disposal decision)
- Closure decision for Waste Tank Farm
- Closure decisions for NRC-licensed Disposal Area and State-licensed Disposal Area
- Construction and Demolition Debris Landfill



West Valley Demonstration Project Phase I Facility Decommissioning

Jeff Bradford

CH2M HILL BWXT, West Valley President

OFFICE OF ENVIRONMENTAL MANAGEMENT

Phase I Facility Decommissioning Team









The CHBWV team is comprised of CH2M, BWX Technologies, Inc. and Environmental Chemical Corporation (ECC).

Approximately 300 employees, including Salaried, International Association of Machinists and Aerospace Workers, Lodge 2401, and Subcontractors.

One Project. One Team. One Goal.

Contract Scope 2011 - 2020

Milestone 1: Decontamination and Relocation of High-Level Waste Canisters to Interim On-Site Storage Pad (Completed, One Year Ahead of Schedule)

Milestone 2: Process, Ship, Dispose of all Legacy Waste, not including Transuranic Waste (TRU) (+50% Complete)

Milestone 3: Demolition and Removal of Main Plant Process Building (MPPB) and the Vitrification Facility (Vitrification Facility Demolition Planned for 2017, MPPB Planned for 2018)

Milestone 4: Complete All Work in Performance Work Statement, including Balance of Site Facilities, Surveillance and Maintenance, and Site Operations (In Progress)

All-Employee Celebration

VPP Star of Excellence Award was presented at the All-Employee
 Celebration in recognition for 2016 accomplishments,



Presentation of the VPP Star Award for the second consecutive year.
Bryan Bower/DOE-WVDP, Stacy Charbonneau/DOE-EM, Andy Rupp/IAWMAW
(International Association of Machinists and Aerospace Workers, Lodge 2401),
Jeff Bradford, President/CHBWV, Monica Regalbuto/DOE-EM, Kash Grimes/EM-CBC.



All-Employee Celebration



OFFICE OF ENVIRONMENTAL MANAGEMENT

Public Involvement

Active Engagement with Stakeholders, Community, Elected Officials







FY 2017 Goals

- Perform all work safely and compliantly
- Complete relocation of legacy waste from Main Plant Process Building (Head-End Cell drums)
- Begin demolition of Vitrification Facility (Contingent on funding)
- Ship demolition debris from Vitrification Facility (Contingent on funding)
- Continue deactivation of Main Plant Process Building
- Continue reconfiguration of water, natural gas, electric, communications infrastructure (Contingent on funding)



The Seneca Nation

- Is a federally recognized sovereign nation
- Is self-governing
- Has its own constitution est. 1848
- Has three branches of government like the US





Seneca

Seneca Nation Interest

Environmental impacts on our *cultural* and *natural* resources









Health of the Nation

Cultural resources are *critical* resources









