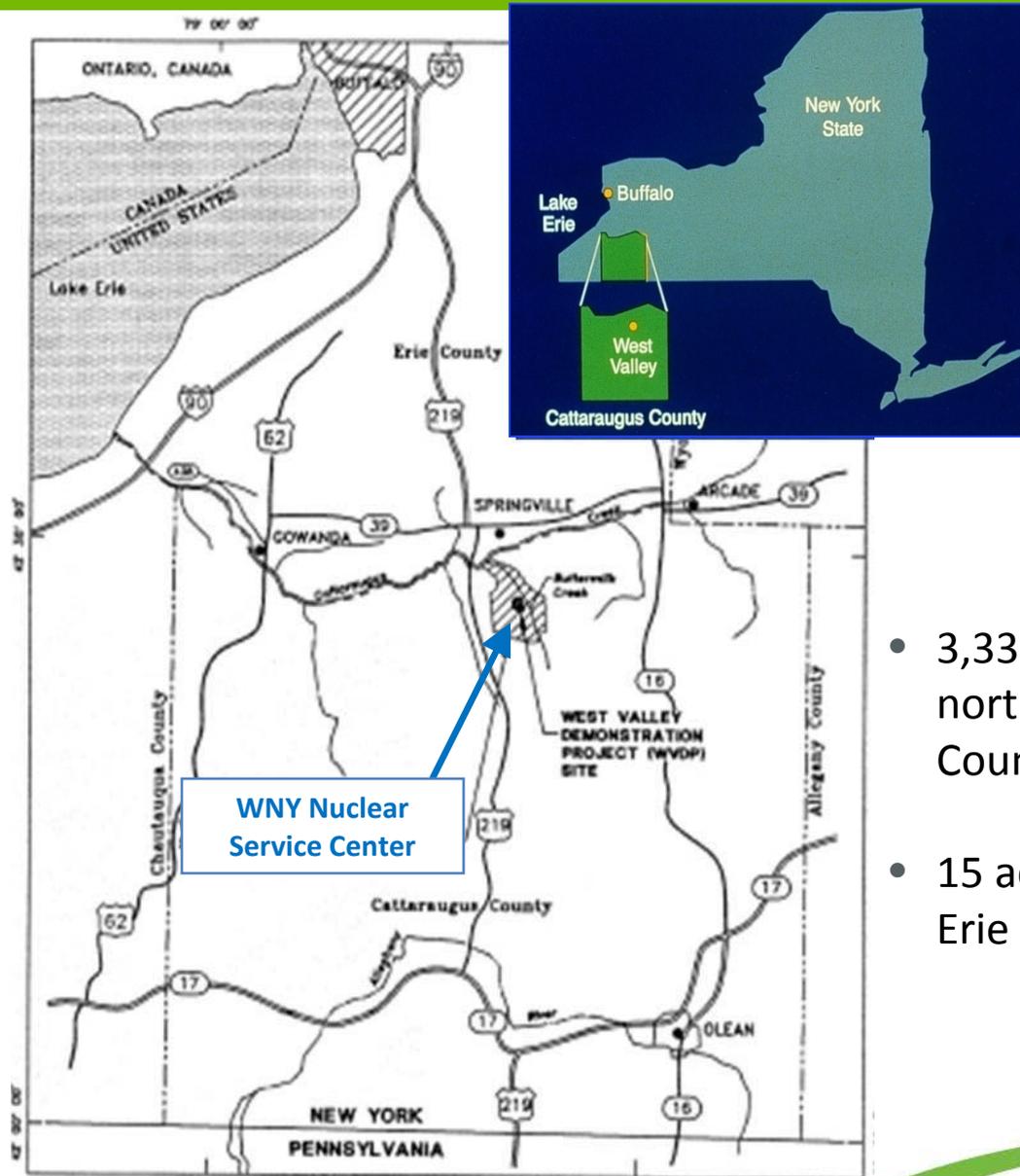


Western New York Nuclear Service Center History

Paul J. Bembia, Director
NYSERDA's West Valley Site Management Program

Western New York Nuclear Service Center



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

0 2.5 5 10 Miles
APPROXIMATE SCALE

Development of a Civilian Nuclear Industry

The West Valley facility owes its existence to the federal government programs of the 1950s that were created to develop peaceful uses for nuclear energy.

President Eisenhower's "Atoms for Peace" speech to the United Nations in 1953



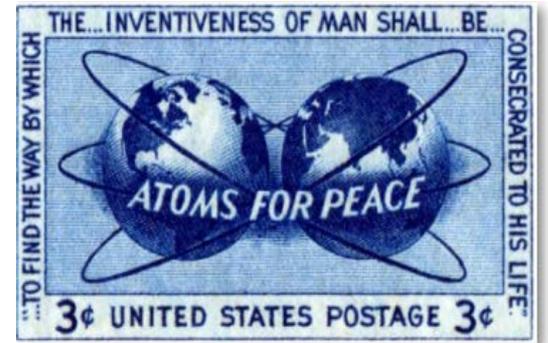
Signing of the Atomic Energy Act of 1954

The Atomic Energy Act of 1954 put the nation's nuclear program into the hands of a civilian agency, the U.S. Atomic Energy Commission (AEC), rather than the U.S. military.

“Atoms for Peace”

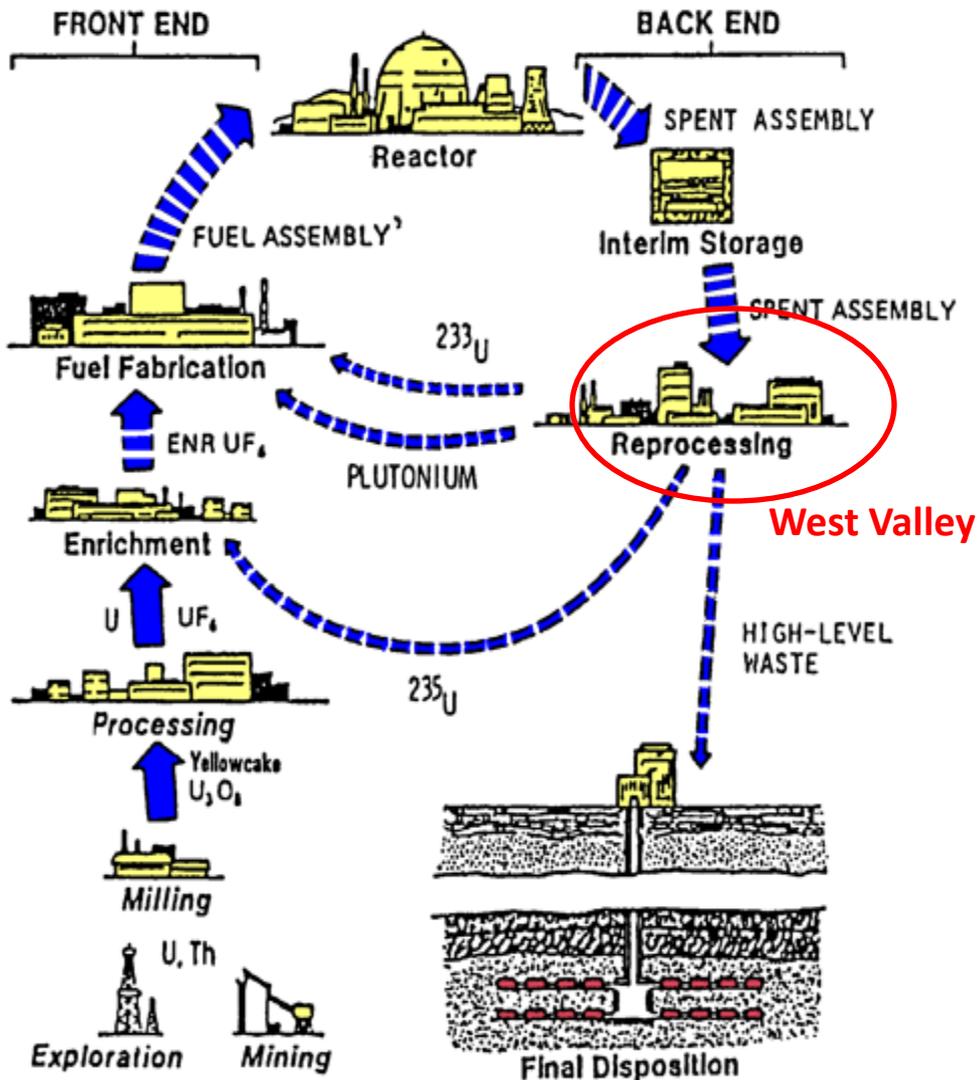
Atoms for Peace Program:

- Intended to prevent the spread of atomic weapons by the *controlled* sharing of non-weapons nuclear technologies so *other countries wouldn't find it necessary to develop their own full-scale nuclear programs*;
- Authorized the federal government to enter into agreements for cooperation with other nations on the peaceful uses of nuclear energy;
- Allowed ownership of nuclear facilities and materials by private industry;
- A major component of the Atoms for Peace program was the development of a civilian nuclear power industry in the United States.



Development of Civilian Nuclear Power

Nuclear Fuel Cycle



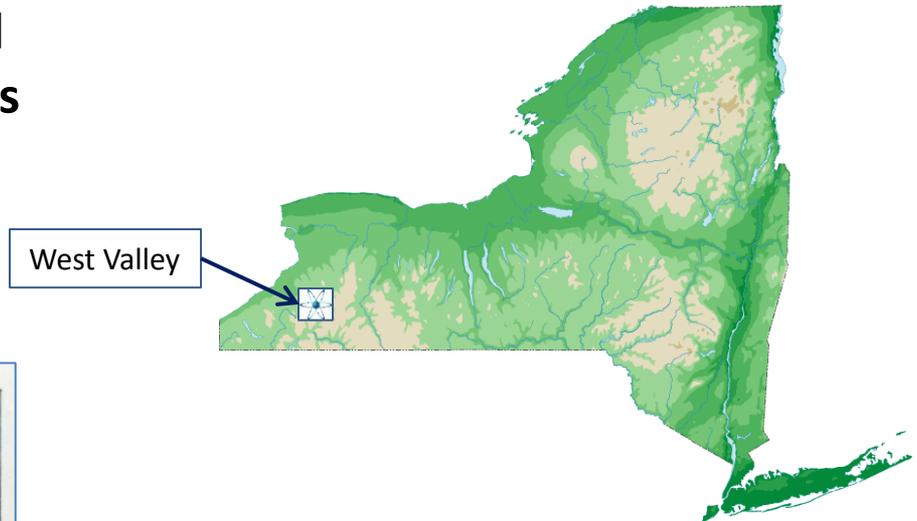
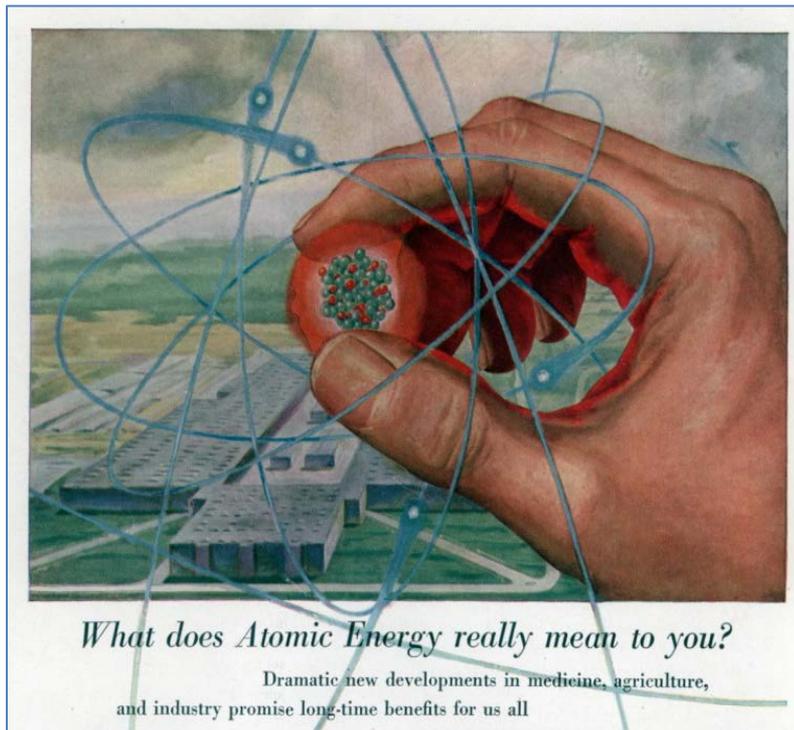
Along with the civilian nuclear power program came the need for a civilian nuclear fuel reprocessing program.

In 1956, AEC announced that it would:

- Make classified technology on spent fuel reprocessing available to private industry;
- Invite proposals by private industry to design, construct, and operate spent fuel reprocessing plants; and
- Provide a baseload of spent fuel from federal government reactors.

Development of a Civilian Reprocessing Capability

New York State became interested in the AEC privatization program as a way to promote industrial development within the State.



- New York State established an Office of Atomic Development in 1957.
- 3,300 acres were acquired by the New York State near the hamlet of West Valley in 1961 for a reprocessing facility.

Western New York Nuclear Service Center is Created

The decision to locate the reprocessing plant in Western New York was hailed as positive economic news for the local community and the region.

PORT OF BUFFALO OK'D TO HANDLE NUCLEAR CARGOES

The port of Buffalo will be able to handle nuclear cargoes, Coast Guard announced.

Coast Guard said "complies in all the Coast Guard of a community the handling of materials."

Approval of AEC Is Asked for WNY Nuclear Fuel Plant

Buffalo Evening News Bureau
WASHINGTON, Aug. 8 — Nuclear Fuel Services Inc. of Baltimore has applied to the Atomic Energy Commission for permission to build a plant to reprocess nuclear fuel at the Western New York Nuclear Service Center.

The AEC informed Reg Goodell of Jamestown that the chemical plant, to occupy about 500 acres of the 3331-acre site in Cattaraugus County, is planned to cost between \$22 million and \$25 million.

The AEC said that if the licenses are granted, the plant will be the first such privately owned facility in the nation.

The plant would work primarily with the fuel cores "burned" in atomic reactors such as those used by electric companies for power and those in research centers.

...ct still-usable cores, purify and fashion elements.

...extract radioactive material in medical and space re-

...proceed, the AEC it plans to next March 1965.

...its include: ...sins, process ...k farm, waste

Ashford Residents Cheered By Plans for A-Fuel Plant

Supervisor Fagnan Says This Is First Indication That State Is Negotiating

WEST VALLEY, Jan. 23—The announcement that a leading chemical concern is interested in constructing a \$20 million plant on the state's proposed Nuclear Service Center site has created a stir among nervous Town of Ashford residents.

Other than token test boring and drilling on the 3331-acre site that was appropriated last June by the state, there has been little evidence of activity. The

be disturbed now until at least June.

He added that the state has come to terms with only four owners of properties that were appropriated June 19, but that none have been paid. Negotiations with the others are stalemated on price.

The official said he expects that "now that the dam has been broken," there will be more news from Albany about prospective industrial operations in the center. Its principal use

First Privately Owned Nuclear Plant May Produce Boom Town

By MARIAN REYNOLDS
Schenectady Times-Herald

Written for The Associated Press
ASHFORD, N.Y., (AP) — The world's first privately owned nuclear fuel reprocessing plant may change Ashford from a tiny, rural town into bustling city.

Construction of the \$33-million plant, which will reprocess atomic fuel for peacetime industrial purposes, has begun on a 3,300-acre site in this community of 1,500.

It may take a decade or more, but the State Labor Department unofficially estimates an urban potential population of 24,000.

The prospect of such growth is greeted with characteristic restraint by most residents of the quiet township.

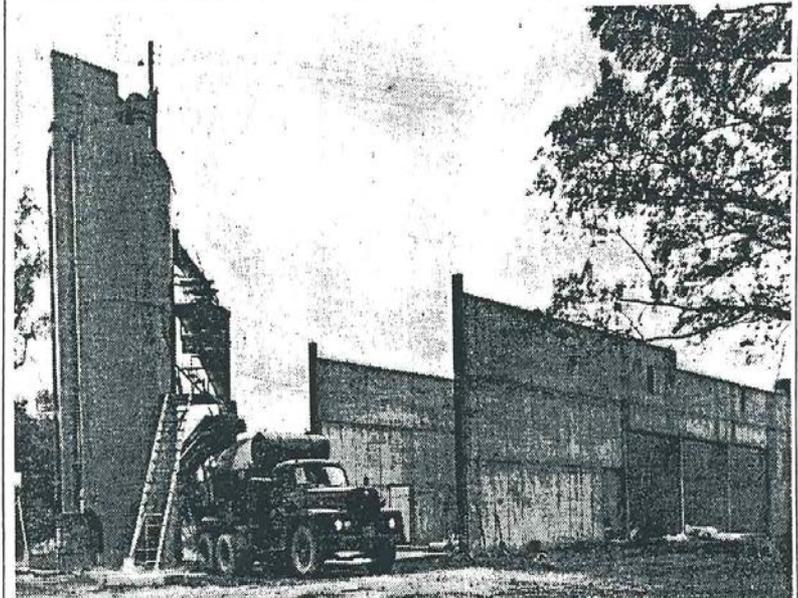
"We're afraid we will see an end to the beauty of our rural area," says Marjorie Hollenbeck, a tearoom operator in neighboring West Valley. Her partner, Marie

Jones, is concerned that superhighways, shopping plazas and heavy industry will spell the end of the pastoral life.

But Mark Bobseine, who owns a prize herd of 40 Holstein cattle, intends to "see it through," and continue to improve his farm, "the same as I have done for 45 years."

Farmer Elton Zetwick, 70, says

Springville Is Poised for Many Good Days Ahead Nearby Atomic Plant Powers Way to Prosperity



NEW CONCRETE PLANT RISES ON HENRIETTA RD., 3 MILES FROM SPRINGVILLE

Agreements Reached with Nuclear Fuel Services (NFS) to Build and Operate a Reprocessing Facility

Nuclear Fuel Services Given Option For Atomic Plant

The State Atomic Research & Development Authority has reached tentative agreement with Nuclear Fuel Services Inc. for construction and operation of a \$22 million project at the Western New York Nuclear Center in Cattaraugus County.

Last Thursday Gov. Rockefeller said an agreement had been signed giving Nuclear Fuel an option to negotiate a lease and operate a company-owned plant for reprocessing nuclear fuels and Authority-owned facilities for storing atomic fuel and waste. He said about two-thirds of the \$22 million would go for the reprocessing plant.

Nuclear Fuel, a subsidiary of W. R. Grace & Co., is working on plans for construction of a reprocessing plant with a capacity up to one ton per day to serve the civilian atomic power industry, the governor said.

He said such a plant would be the first in the world to be privately owned and the first in the U. S. to service civilian atomic power stations.

Governor Rockefeller hailed the proposed lease as a "landmark in the long effort to break the federal monopoly over atomic energy." He added:

"Only when competitive and creative forces of private enterprise are fully working in the development and utilization of atomic energy will its benefit become a reality to all of our people. I am especially gratified that this new project proposes to locate in New York State a major segment of the growing nuclear industry.

"The principal purpose of the project will be to take used nuclear fuel elements from atomic power stations and process these chemically to extract from them valuable reusable fuel and byproduct."

Nuclear Fuel will apply to the U. S. Atomic Energy Commission by July 31 for a license to construct and operate the contemplated plant and related facilities.

Nuclear Fuel and the Authority will, during the option period, proceed to complete negotiations, subject to approval by the Authority board and W. R. Grace & Co., for a lease and facilities contract providing for construction and operation of the reprocessing plant and storage facilities. The option is effective for \$25,000 until October 10, 1963 and renewable for an additional \$10,000 until December 31, 1963.

The Authority may, until April 1, 1963, engage Nuclear Fuel to design and construct a nuclear fuel receiving and storage facility of a size and type suitable to serve the proposed reprocessing plant.

Gov. Rockefeller's office revealed that the Empire State Atomic Development Associates Inc. has agreed to grant \$3,000,000 toward the research and development program for the project when all construction arrangements have been completed.

Empire State Associates is a non-profit group made up of seven utility companies, including Niagara Mohawk Power Corp. and New York State Gas & Electric.

Oliver Townsend, chairman of the State Atomic Research & Development Authority, said Nuclear Fuel Services was selected "because its plans for the construction and operation of a reprocessing and waste complex, as well as its negotiations with the Atomic Energy Commission and the utility industry for a sufficient load to make the project economically feasible, are both substantially more advanced than those of any other company expressing interest in building and operating Authority-owned facilities at the Cattaraugus County site."



Governor to Head Guests At Atom Center Ceremonies

Civic, Industrial, Political Leaders to Attend June 13 Groundbreaking in Town of Ashford

By BERT FREED

WEST VALLEY, June 1—Gov. Rockefeller will head a delegation of top public officials who will attend ground-breaking ceremonies June 13 for the history-making Western New York Nuclear Service Center.

The governor's decision to assume the key role in the 10:30 AM program was announced Friday by his office in Albany.

Other participants include officials of NFS and its parent corporations, W. R. Grace Co. and American Machine & Foundry Corp., both of New York City, also members and executives of the Authority, whose chairman is Oliver Townsend.

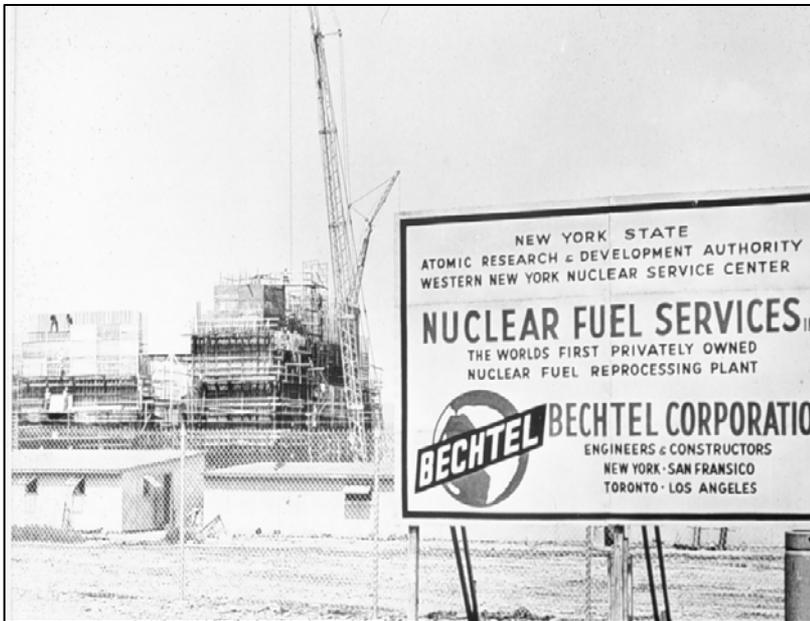
T. Charles Runion, president, which will include officials of Bechtel Corp., San Francisco, which holds the engineering and construction contract.

Ground was broken by Governor Rockefeller, AEC Commissioner Robert E. Williams and J. Peter Grace in June 1963.

NFS is established by the Davison Chemical Company (which would be bought out by W.R. Grace and Company), and the American Machine and Foundry Co. to pursue the reprocessing venture at West Valley.

Reprocessing Operations Begin in 1966

- NFS was licensed as the operator of the facility, and the New York State Atomic Research and Development Authority (a predecessor agency of NYSERDA) was licensed as the owner.
- The construction cost was about \$33 million.



- AEC set the fee structure for reprocessing—NFS could not charge more than 15 percent above the AEC-published charges based on a conceptual AEC reprocessing plant.
- In 1966, construction was completed and NFS was granted a provisional operating license.

Nuclear Fuel Services (NFS) Operations at West Valley



Waste Disposal 1963-1975



This was a first-of-its-kind facility:

- Worker radiation doses were higher than expected;
- Releases of radiation to the environment were higher than expected;
- Profits were lower than expected;
- Equipment breakdowns were common.

NFS Ends Reprocessing Operations in 1972

- NFS halted reprocessing in 1972 to make process improvements.
- NFS expected the modifications to cost \$15 million.
- AEC issued new requirements related to waste management, earthquake and tornado protection.



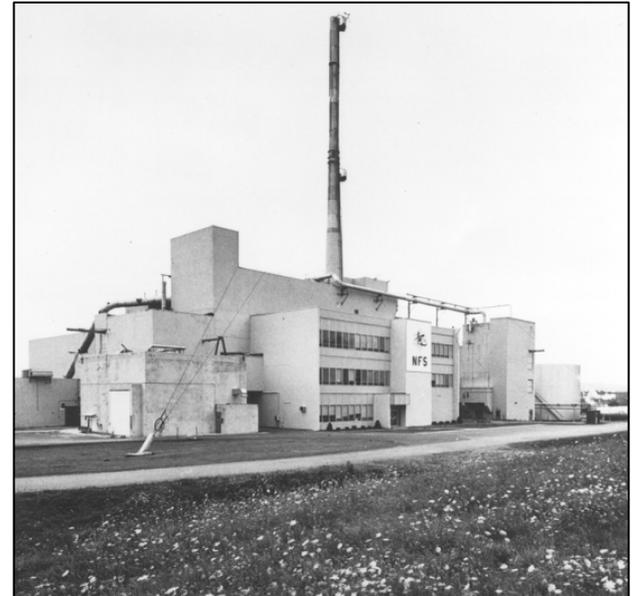
- NFS estimated that the retrofit would cost \$600 million and would require a new licensing process.
- In 1976, NFS informed New York State that it would not resume reprocessing and would turn the facility over to the State.
- 600,000 gallons of liquid high-level waste; three million ft³ of radioactive waste; and highly contaminated facilities were present at the site.
- Seventy-five percent of the spent fuel came from the federal government. Sixty percent is from the Hanford, Washington facility.
- New York State refused to accept the facility and wastes from NFS.

Uncertainty Leads to West Valley Demonstration Project Act

- U.S. Congress held hearings, directed the Government Accountability Office to investigate, and directed the Department of Energy to study options for the future of the Center.
- Congress passed the West Valley Demonstration Project Act in 1980.



President Carter Signs the WVDP Act



- Economic factors, technological difficulties and an evolving regulatory framework led to the failure of the facility.
- Federal government involvement in the facility's creation led to federal government involvement in the cleanup.