SITE OF CONTROVERSY

Official positions on what should be done about the Manhattan Project waste:

Department of Energy position on the storage site:

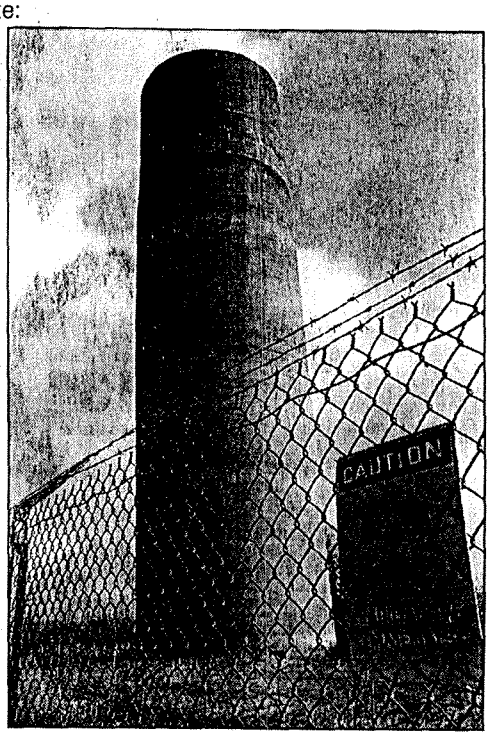
"Data collected indicates that the facility is successfully isolating the residues even with only an interim cap in place."

- Leave waste and residues in place and install a long-term cap.
- They will be safely maintained for 200 to 1,000 years.
- Several years of monitoring at site shows current standard for containing waste and residue is effective.
- Funding for long-term cap budgeted for near-term action.
- Cap costs $15 million; excavation, shipping and disposal of wastes would cost $100 million, plus another $15 million to cap current site.
- Relocating residues would result in much greater worker radiation exposure hazards and transportation risks.
- At this time, no high-level waste repository is available.

When or if it becomes available, Niagara Falls Storage Site wastes would have low priority because of a backlog of higher-level wastes.

- Capping now would not preclude future removal, but enhance site conditions.

Source: *May 10, 1993 letter from Department of Energy to EPA.*



Niagara Gazette Archives

This 165-foot concrete silo housed radioactive residue for 41 years at the former Lake Ontario Ordnance Works, now called the Niagara Falls Storage Site. In 1985, the residue and debris from the silo were buried under a clay cap in an interim waste storage site.

Other positions on the storage site:

Environmental Protection Agency

"In particular, we do not believe that the Department of Energy has demonstrated that this alternative is adequately protective of human health and the environment."

- EPA is not opposed to long-term, on-site management of some waste at the site.

But standards in use at the site are now too low to deal with the high level of radioactive residues there, in particular the K-65 residues, which contain radium-226 with a half-life of 1,600 years.

- Radium-226 exhibits levels of activity at 100 to 1,000 times that of wastes that are supposed to be governed by the standard now in place. That is, these ore residues are 100 to 1,000 times more concentrated in radioactivity than the residues that are supposed to be governed by the standard now in place.
- A higher standard, which would ensure containment for 10,000 years, should be used for the residues. But that standard cannot be met at the current site.
- The only viable solution would be removal of the highly radioactive residues to a high-level radioactive waste repository, when such a facility becomes available.

EPA wants a written commitment from the Department of Energy that the residues will be moved to such a repository when it becomes available.

Source: *June 24, 1993 letter from EPA to Department of Energy.*

State Department of Health

"The fact that the Department of Energy does not currently have an operational high-level waste storage facility does not justify leaving these high activity residues at a site that does not meet the minimum requirements for protection of the public."

- Opposes long-term, in-place management suggested by Department of Energy because it appears to make the storage site a permanent repository for the K-65 residues currently at the site, which contain "exceptionally high" concentrations of Radium-226.
- Disposal of these wastes in a deep geological repository is the only way to protect the public health and safety for a long period.

Source: *Aug. 3, 1993 letter from commissioner of state Department of Health to Energy Secretary Hazel O'Leary.*

State Department of Environmental Conservation

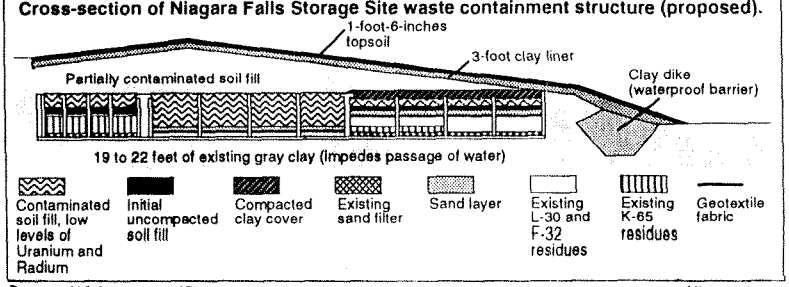
"The Niagara Falls Storage Site . . . has 4,000 tons of mill tailings from the Manhattan Project weapons program with radium concentrations much higher than at any other such site in the nation."

"We strongly support the position taken by the EPA."

- The current standards at the site were never meant to regulate such high activity radioactive wastes as the K-65 residues contain.
- The most applicable standards would be those requiring deep mine repository disposal and assurance of over 10,000 years of isolation from mankind.
- The Department of Energy should proceed with the installation of a new cap over all the radioactive wastes at the site, which would be designed to allow for removal of the K-65 residues when a high-level radioactive waste repository becomes available.

Source: *Sept. 28, 1993 letter from the commissioner of the state Department of Environmental Conservation to Energy Secretary Hazel O'Leary.*

Cross-section of Niagara Falls Storage Site waste containment structure (proposed).



Source: *U.S. Department of Energy*

Niagara Gazette

HISTORY OF TOXIC SITE

■ Jan. 5, 1942: The U.S. government announces it will construct the $32 million ordnance works for the production of TNT.

■ Sept. 28, 1942: TNT production begins, ending nine months later with the government's secret commitment to developing an atomic bomb in Oak Ridge, Tenn.

■ 1944: The U.S. Army announces it will use the LOOW site, now covering 7,500 acres, to store munitions and chemicals.

■ 1948: The Army transfers 1,511 acres to the Atomic Energy Commission and sells 5,000 acres to the public.

■ August 1949: The federal government reveals for the first time that Manhattan Project radioactive waste had been shipped to the site since 1944, and flatly denies any health hazard from the waste storage.

■ 1955-68: The government sells 1,298 acres of contaminated LOOW site property to private interests. Present owners include the Town of Lewiston, SCA Chemical Services, which operates hazardous waste landfills there, and Steven Washuta, who operates municipal landfills.

■ June 1982: Bechtel National, the energy department's consultant, begins cleanup work at the site, primarily burying contaminated material in concrete foundations.

■ November 1982: A study by a researcher at the State University at Buffalo finds cancer rates in Lewiston and Porter no higher than county, state and federal norms.

■ July 1984: Workers begin pumping the residue from the tower to a storage area a half-mile away.

■ August 1984: In a preliminary environmental impact statement on the site, the energy department estimates moving the radioactive material to storage sites in Tennessee or Washington state would be dozens of times more expensive and several times more dangerous than maintaining the material in Lewiston.

■ Oct. 23, 1985: The Environmental Protection Agency says the draft environmental impact statement did not present sufficient information on the geohydology of the area or the ground water impacts of leaving the waste contained at the site.

■ May 24, 1985: EPA said it wants more technical/design information in the final environmental impact statement to show that on-site management of the wastes would adequately protect human health and the environment.

■ April 1986: Department of Energy issues the final environmental impact statement, which chose the alternative of long-term, in-place management of the wastes.

■ June 25, 1986: EPA states, "We find the (final) environmental impact statement inadequate" for determining whether the chosen alternative of on-site management is environmentally acceptable.

■ Aug. 27, 1986: The Department of Energy assures that, prior to starting final action, it will "provide EPA with assurance that the selected option will meet applicable standards and/or guidance and will be environmentally acceptable."

■ May 1, 1987: EPA says OK to the storage standards at the site for the projected 10 years of interim storage, but reiterates that they are not adequate for long-term, on-site management of wastes.

■ May 12, 1992: EPA writes to Department of Energy to restart communication on long-term handling of wastes.

■ June 22, 1992: Department of Energy responds that the radioactive residues have been adequately dealt with.

■ May 10, 1993: Department of Energy sent letter to EPA announcing plans for final capping of the waste at the Niagara Falls Storage Site.

■ June 24, 1993: EPA responds to May 10 letter that while it is not opposed to the long-term, on-site management of the waste at the site, it is opposed to the same solution for radioactive residues at the site.

■ Aug. 3, 1993: State Department of Health opposes installing a final cap at the site becaue it appears to make the site a permanent repository for the radioactive residues.

■ Sept. 28, 1993: State Department of Environmental Conservation "strongly supports" the position taken by the EPA.

Source: Gazette files. EPA status report on site, letters sent by and to government agencies.

Proposal on nuclear waste splits experts

Continued from page 1A

the Niagara Falls Storage Site, near Pletcher and Lutts roads. "As far as I know, it's there forever."

He thinks the energy department has done a "bang-up" job of containing the waste and residues.

"They did tell us that it would be a thing like a cemetery — perpetual care. They're going to watch it until year X," Jackson said.

Timothy Henderson would agree with the cemetery comparison, but for a different reason. When Lewiston unknowingly became the host community for radioactive wastes from the Manhattan Project in 1944, "I think that was one act that sounded the death knell for this area," he said.

Henderson is the president of the Residents Organized for the Lewiston-Porter Environment group.

"It's probably Lewiston's best-kept secret," he said of the Niagara Falls Storage Site, formerly known as the Lake Ontario Ordnance Works.

"It's not surprising that people are somewhat unaware of it and that they don't necessarily understand it," said R. Nils Olsen Jr., attorney for the ROLE group.

Symbol is gone

It's been known since 1949 that the U.S. government stored Manhattan Project waste there. But not much has been heard about the site since a clay cap was placed on the Interim Waste Containment Facility at the site in 1986, after a five-year cleanup that cost more than $30 million.

That may be in part because "they took the visible evidence away," said Bill Heinz, who was a Lewiston councilman from 1978 until 1982. A 165-foot concrete silo once stood at the site, looming against the horizon beyond Lewiston Hill.

The silo contained the highest-level radioactive waste at the site, 4,000 cubic yards of uranium ore residue, code-named K-65 residues.

The residue was pumped from the silo into a storage area at the site and the silo was demolished in 1985. The debris was also buried in the 255,000 cubic yards of radioactive waste at the site.

"When you see that silo, you never forget it and kept on fighting," against long-term storage of the waste at the site, said Joan Gipp, a former Lewiston councilwoman. "Now, out of sight, out of mind."

How long is enough?

"Even with a permanent cap, there is no such thing as a secure landfill. ... only time separates those that are leaking from those that are not," Mrs. Gipp said.

The cap that was placed on the waste there seven years ago is good for up to 50 years, the energy department says. Now it wants to "upgrade" the cap so that it will be good for containing the waste for 200 to 1,000 years.

But containing the waste for 1,000 years isn't good enough, the Environmental Protection Agency, state Department of Health and state Department of Environmental Conservation agree.

The standard used at the site is OK to contain the radioactive waste there, but too low to contain the higher-level radioactive residues there, the EPA says. A standard that would make sure the residues are contained for 10,000 is the appropriate one to use, the agency says.

But that standard can't be met at the Niagara Falls Storage Site, the EPA says. The only solution is to excavate the residue and transport it to a high-level radioactive waste repository, it says. The problem is, there currently are none in the United States.

A matter of money

"I don't think it's realistic to even consider moving (the residues) because of the dollars and cents involved," Jackson said.

Money is also a big reason why the energy department opts for leaving the waste and residue in place. "Excavation, shipment and disposal in a geologic repository is estimated to be a $100 million resource drain," stated the energy department, in a Sept. 28, 1993, briefing to the state Health Department on the installation of a long-term cap at the storage site.

Meanwhile, installing the long-term cap instead would cost only $15 million, the energy department estimates. And the money appears to be available "in the near term" for the installation, the energy department wrote to the EPA.

"The only sure way we have of knowing it's not going to leak and cause future problems is to move it. Damn the cost. Consider the risks. All it works out is the government gets the benefit and we take the risk," Henderson said.

"It's not a cost-benefit analysis here," agreed R. Nils Olsen Jr., ROLE attorney.

A letter and a response

The dialogue sparked among concerned parties — hearing for the first time of the plan to install a final cap at the site — has been going on among federal and state government agencies since the energy department first announced its intent. That was in a May 10 letter to the EPA, signed by William M. Seay, who was at the time acting director of the former sites restoration division.

The EPA responded with its concerns in a June 24, 1993, letter to the energy department, from William J. Muszynski, acting regional administrator of EPA Region II in New York City.

It's OK if most of the 255,000 cubic yards of lower-level radioactive waste at the site remains, the EPA said. What it's concerned about are the 15,000 cubic yards referred to as residues, from the processing of uranium ores, which are higher-level radioactive waste.

In particular, 4,000 cubic yards of these are K-65 residues. The K-65 residues have a half-life of 1,600 years. That means half of its radioactivity will be gone after 1,600 years, but it will still remain radioactive for a period of up to 16,000 years, said William Condon, chief of the environmental radiation section of the state Department of Health in Albany.

The lower standard of containment at the site now is not sufficient for K-65 residues, because they are 100 to 1,000 times more concentrated in radioactivity than the type of waste usually dealt with using that lower standard, the EPA and Condon said.

The EPA letter says that if, hypothetically, such residues escaped into the environment, the dosage to people would be so high that it would result in a risk of one in two people developing cancer.

Condon hastily adds that this is only a hypothetical, worst-case scenario. That's why the EPA says a higher level standard is appropriate at the site, which will ensure the residues will not migrate for 10,000 years. And the only way to do that is to put the waste in a high-level radioactive waste repository deep in the ground, the EPA says.

But none are available now in the United States.

A choice and a promise

The energy department chose long-term, in-site management as its alternative to deal with Niagara Falls Storage Site radioactive waste and residue in its Final Environmental Impact Statement on the site in April 1986.

The EPA objected because it said the impact statement did not present sufficient information to support the energy department's choice.

So the energy department, in a Record of Decision, said it would "provide the EPA with assurance that the selected option will meet applicable (EPA) standards and/or guidance and will be environmentally acceptable," the EPA letter stated.

In addition, the energy department said that its subsequent plan would be subject to review under the National Environmental Policy Act, the letter said.

"Unfortunately, the Department of Energy has met neither of these commitments," the EPA letter stated. "We strongly recommend" that the energy department prepare assessments, under the environmental policy act, of the impacts of its proposed plan on human health and the environment, the letter said.

How will it be resolved?

The whole issue of long-term, in-place storage is still up in the air.

"What has happened here is basically you have a number of federal agencies with different regulations," but no one has clear authority over the other, Condon said. And the radioactive material they are talking about does not legally fall under any existing regulations.

"That's why you have this confusion, why one agency in good faith may say this applies" and another agency says a different regulation applies, Condon said. "They're all doing the best that they can with what they've got."

But they may not be able to come up with a solution amongst themselves, Condon said. "This happens to be the type of issue that needs to be resolved at very high levels in the federal government." That means that if a resolution can't be made at the agency headquarters level, Congress or the president may have to step in, Condon said.

But the State of New York appears to have the most authority in this case, under Section 120 of the Superfund law, said Robert W. Hargrove, chief of the environmental impacts branch at EPA Region II in New York City.

A friendly debate

The letter exchange so far between the energy department and the EPA is not a "battle," said Lester K. Price, director of the former sites restoration division of the Department of Energy in Oak Ridge, Tenn. He said he didn't want to "get into a debate in the newspaper over something we're debating in a friendly sort of way."

The EPA had previously agreed that the energy department could go ahead and put a cap on the site and had given its OK for that cap for a 10-year period, Price said. "Well, we're six or seven years into that 10-year period and we want to sort of reopen that discussion and get it resolved."

The energy department does not intend to do anything until it and the EPA reach agreement on the standard issue, Price said. Moreover, "I think our plan is, we want to have all the involved parties, the state of New York and EPA and ourselves in agreement before we proceed," he said.

The voice of the people

"This is the kind of thing that we would certainly involve the public in, in an informational sense as a minimum," Price said. "Frankly, we weren't close enough to taking the action."

"Disposal is a permanent remedy. ... We do not believe it's an adequate disposal site, that there could be impacts to the environment and human health if it were to be implemented as the final alternative," Hargrove said.

In that case, additional public participation would be required under the National Environmental Policy Act, Hargrove said.

"It's such an significant decision that to do this without having an extensive EIS (Environmental Impact Statement) is just totally inappropriate," Olsen said, "and also to do it without the public process that accompanies NEPA (National Environmental Policy Act)."

If the energy department does not involve the public, "they might expect some legal challenges," conceivably from ROLE or from Lewiston and Porter, Olsen said.

"Sneaking off in the night is not appropriate. They must make a full report to the public, to the towns and county as to what they're doing and why they're doing it," Olsen said.