

F U S R A P U P D A T E

The Tonawanda Site

U.S. Department of Energy • Formerly Utilized Sites Remedial Action Program • January 1995

■ **Treatment Technologies to be Tested on Tonawanda Soils**

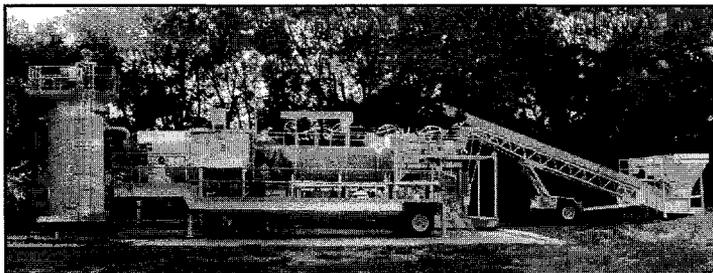
Washing contamination from soil? That is exactly what the Department of Energy (DOE) is studying for use on Tonawanda soils. On September 19, DOE representatives conducted a workshop on treatment technologies that was open to the public.

As DOE Site Manager Ron Kirk explained, "DOE is evaluating soil washing to determine whether it can reduce the volume of contaminated soil at Tonawanda.

Reducing the volume of contaminated soil would reduce transportation and disposal costs."

Senior environmental engineer Dan Brady, a technical specialist in treatment technologies with Science Applications

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■ **Information Professional Staffs DOE Information Center**

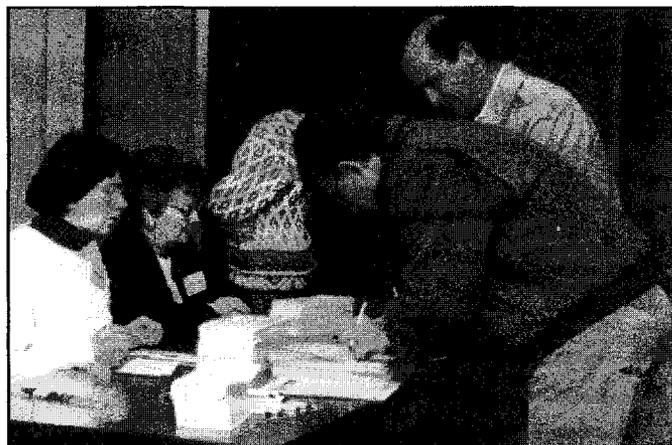
Most visitors to the U.S. Department of Energy Public Information Center in Tonawanda are greeted by Emily Latko, the site information coordinator. Emily came to the DOE Center after a decade of service at the Public Information Office at the Love Canal site in Niagara Falls.

Emily started her new job at the DOE center in mid-May 1993. That same week she was chosen from among 20 candidates to receive the Ernest Trad Award in recognition of her contributions to the New York State Department of Environmental Conservation, her employer at Love Canal.

Emily says, "It is a great pleasure to be able to provide information that people are seeking, answering their questions and, especially, making young people more aware of their environment."

At the DOE center, Emily serves as contact person for community inquiries and makes community organizations aware that the DOE site manager and others are available to speak to groups who may want to know more about DOE's work in Tonawanda. She helps set up meetings, tours, and workshops and makes sure that there is always a good supply of public information materials in the center.

The DOE Public Information Center in Tonawanda is located at 810 Sheridan Drive near the Fire Station. It is open every day of the week except Wednesday from 10 a.m. to 3 p.m. On Wednesdays, the hours are 12 noon to 5 p.m. The telephone number is (716) 871-9660.



Arleen Kreusch, left, and Emily Latko welcome citizens to DOE's public meeting in December. (Photo by Milton Ehrenberg, Cameo Studio)

Letter from the Site Manager

In response to numerous public comments on the proposed cleanup plan for the Tonawanda site, the Department of Energy decided to suspend the decision-making process in April of this year. This means that the schedule for issuing a decision on cleaning up the site is on hold. The process was suspended to allow DOE to review its proposal on how to deal with the waste at the sites in the Town of Tonawanda and also to complete studies on potential treatment technologies.

At the request of the Tonawanda community in a meeting on July 25, DOE committed to develop



a draft work plan outlining a process for working with the community to reach a decision on how to clean up the site. On October 18, a meeting was held with community members to discuss the plan. The plan included the formation of a citizens' group composed of representatives from various organizations and residents, and also defined the process and schedule.

The forty community members attending the October meeting were very emphatic in their response to the plan. DOE's interpretation of the comments is that the people at the meeting did not want a citizens' group and preferred to work through the existing Coalition Against Nuclear Materials in Tonawanda (CANIT) organization. The discussion also seemed to indicate that they were not interested in discussing any alternatives except removal of the material from Tonawanda. DOE is interested in receiving comments from the community on the proposed process presented at the meeting.

DOE will evaluate any comments received on the proposed work plan while the soil treatability studies are being completed. An indication of the potential for treatment of the soils is expected to be available by spring 1995. At that time information will be provided to the community on whether treatment technologies will provide other alternatives for disposing of the material.

As we move forward in this process, DOE remains committed to insuring that all interested community members be given the opportunity to participate in the process and have access to DOE. I look forward to continuing working with the community in the future and am confident that an acceptable solution can be developed.

Sincerely,

Ron Kirk
New York Sites Manager

For Further Information...

Contact the DOE Public Information Center. The address is:

DOE Public Information Center
810 Sheridan Drive
Tonawanda, New York 14150
(716) 871-9660

You may also use the DOE toll-free, public access number 1-800-253-9759 to leave a short message on the recorder.

Treatment Technologies

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International Corporation (a DOE contractor), presented information about how soil washing works. "Soil washing works by separating out the small particles of silt and clay (called fines), to which contamination tends to cling, from coarser soil particles and organic material."

Brady further explained, "The process begins with excavated soil suspended in water and being fed through a series of sieves and screens to separate out large debris and coarse material.

"The smaller particles remain suspended by an upward flow of water while the larger, heavier particles settle and are removed. The remaining small particles are directed to a tank, where they settle to the bottom and are contained as a sludge. This sludge is dried and disposed properly."

"The remaining coarse soil and organic material is monitored to verify that it is within safe levels. It is then used to backfill excavated areas."

Will this process be effective on Tonawanda soils? The most important factors contributing to successful soil washing are the size, types, and mixture of soil particles present at the site. Currently, representative samples of contaminated Tonawanda soils are being characterized to determine the feasibility of treating them.

Early indications of the potential for treatment of the Tonawanda soils are expected to be available by spring 1995. Should these activities prove successful, the next phase would be to conduct an actual pilot test of site soils in a small-scale soil washing plant.

"Surface water and sediments were sampled to verify that surface water is not transporting contaminants to new areas and that the material has not migrated to the groundwater system."

■ **Characterization Complete at the Town of Tonawanda Landfill**

The Town of Tonawanda Landfill covers about 55 acres, and is adjacent to a residential area, a Conrail spur line, a Niagara Mohawk Power Corporation utility corridor, and a municipal incinerator that is no longer in use. Disposal at the landfill began during the 1930s and continued through 1989. The landfill was principally used by the community to dispose of household waste, construction and demolition material, incinerator ash, and unburned municipal waste.

It is suspected that low-level radioactive material from dredged stream sediments from Twomile Creek was placed into the landfill during the late 1940s or early 1950s. The stream sediments were contaminated as a result of work performed at the Linde Air Products division of Union Carbide. Linde performed separation operations on natural uranium ores for the nation's early atomic energy program under contract to the Manhattan Engineer District (MED).

In 1991 Oak Ridge National Laboratory conducted a radiological survey. This survey identified low-activity level uranium ore and byproducts of the separation process that were characteristic of similar contaminants being addressed on four other properties in Tonawanda. As a result, the landfill was designated for cleanup under the Formerly Utilized Sites Remedial Action Program (FUSRAP).

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Landfill Characterization

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Since 1960, several studies have been conducted at the landfill to gather more information about site conditions and the nature of the materials deposited there. The 1991 survey indicated that radium-226, thorium-230, uranium-238, and americium-241 are present in the landfill in concentrations above those naturally found in the environment. Except for the americium, these materials are probably the result of the processing of radioactive materials at Linde for MED.



FUSRAP completed the characterization work in November to gather additional information on the area and depth of the concentrations of the Linde-related material, and the amount of contaminated soil. Surface water and sediments were sampled to verify that surface water is not transporting contaminants to new areas and that material has not migrated to the groundwater system. Information gathered during this study will help decision-makers evaluate cleanup strategies for the site.

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