Return to Love Canal: Is it Safe?

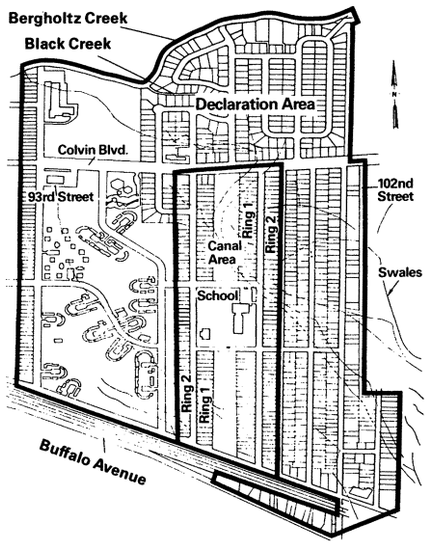
To believe or not to believe? Questions and uncertainty surround the U.S. Environmental Protection Agency's report, released July 14, that concluded areas near but not adjacent to the hazardous wastes landfill at Love Canal in Niagara Falls, N.Y., showed no clear evidence of canal-related contamination. On this basis, the Department of Health and Human Services (HHS) stated that the Love Canal area "is as habitable as the control areas [in Niagara Falls] with which it was compared."

The environmental monitoring program, including air, water and soil samples, took place during the summer and fall of 1980. The report suggests that some toxic chemicals had contaminated a few houses in the ring 1 area adjacent to the canal (see map). The data also reveal considerable contamination in storm sewer lines that originated near the canal and in area creeks near outfalls from those sewers. The report implies that contamination found elsewhere did not come from movement of chemicals from the canal.

John Deegan Jr., project coordinator and report author, says, "In nearby localized areas, contamination is as bad as was feared. But the other side of the coin is that, fortunately, environmental contamination that is directly attributable to Love Canal is nowhere near as extensive as was thought."

Currently, a clay cap covers the landfill, which is surrounded by a barrier drain system that includes a permanent water treatment facility for removing contaminants. After residents were asked to move out of houses in rings 1 and 2 in August 1978, the entire area was fenced in, and this summer, the houses are being demolished. In October 1980, federal and New York State funds were provided for residents in a wider area (known as the "declaration area") who wanted to sell their property and relocate (SN: 5/31/80, p. 340). More than half of the 550 homes within the declaration area are now owned by the state. The controversy is over whether these houses are habitable and safe.

Adding to the confusion was the yearlong interagency review process that saw HHS last October conclude that the area was habitable, then withdraw its judgment in May after the appearance of a critical National Bureau of Standards assessment of EPA's analysis for organic chemicals. Clark W. Heath Jr. of the Centers for Disease Control, who was one of the HHS evaluators, says, "It was a very complicated study. We were concerned about the general validity of the methods and the reliability of certain test results reported as traces or below detection limits." The matter was resolved early this month, just before the report was released, and HHS returned to its original conclusion. Deegan says, "The NBS played a crucial role in assisting us in providing adequate and complete documentation of the measurements."



However, William H. Kirchhoff, NBS review panel chairman, says the report still does not specify clearly enough what the accuracy and precision of the data are. It makes it difficult for someone from outside EPA to decide what the data mean, he says. The NBS review states, "Unless measured values, including 'none detected,' are accompanied by estimates of uncertainty, they are incomplete and of limited usefulness for further interpretation and for drawing conclusions."

Uncertainty about the report has led Sen. Alfonse D'Amato (R-N.Y.) to request a Senate investigation. D'Amato notes that 7 of 11 scientists who last summer reviewed the EPA study for HHS cited problems with the methods used and felt the data inadequate to determine whether the area was habitable. The Senate environmental pollution subcommittee is scheduled to look into the validity of the Love Canal study on Aug. 4.

Lois Gibbs, president of the Love Canal Homeowners Association, calls the report a "whitewash." She asks, "Why are they allowing themselves to be discredited in the eyes of the public? The report can easily be taken apart and used as documentation against their own statements." She says, for example, that too few homes were monitored to support the conclusion that contamination in wet-area (routes along which rainwater flows) houses was no higher than in dry areas. The barrier drain system, designed to draw back some of the wastes from outlying houses, was not working as planned because dioxin levels, for instance, were still very high in some ring 1 houses.

"They should prove beyond a shadow of a doubt that people can move there and live safely, rather than have all these questions remain," says Gibbs. "I think the study was done very poorly because of the time constraints they were working under." EPA spokesman James R. Marshall says EPA scientists would have preferred to do a longer study, but "the results they got were so conclusive that they didn't expect any significant difference."

The day after the report was released, the EPA announced spending an additional $7 million to expand the containment system and extend the clay cap, to provide regular monitoring of the site and to study how to clean up the contaminated storm sewers and stream sediments. Marshall says more funds will be available once the studies are completed. Deegan says, "Love Canal is potentially very dangerous to the environment and to human health. There is a need to assure that the remedies that have been instituted at the site, which come to over $30 million, continue to operate effectively and efficiently."

Yet to come is a Centers for Disease Control study of chromosome damage among selected former Love Canal residents (SN: 5/24/80, p. 325). Heath says that the study is a much-scaled-down version of a larger health evaluation proposed in December 1980 but never funded. The results should be available at the end of the year. No other federal health effects study is in progress. —*I. Peterson*

New hazardous waste rules

The U.S. Environmental Protection Agency has announced final regulations for both new and existing hazardous waste land disposal facilities. This action completes the core of the hazardous waste control system mandated by the Resource Conservation and Recovery Act of 1976. The standards are aimed at preventing groundwater contamination from the nearly 43 million metric tons of hazardous waste produced each year.

For new facilities, the regulations require impermeable liners made from synthetic materials rather than clay liners often used in the past. All facilities must install monitoring wells and conduct periodic water quality tests. Upon closure, the facility must be capped for 30 years to minimize rainfall infiltration.

Rita M. Lavelle of the EPA says, "The standards clearly set forth the environmental results to be achieved. It is left to the owner or operator to determine the most appropriate design to accomplish this goal." □