Love Canal Is in Limbo Again

It is unclear whether the Love Canal area is suitable for habitation, according to a new report by the congressional Office of Technology Assessment. The report contradicts a position taken by the Department of Health and Human Services (HHS), which a year ago gave the area a provisional stamp of approval. The report's conclusion is sure to keep in limbo the future of 182 families still living in the Love Canal neighborhood and the 270 families waiting to buy homes there.

The report says that a 1980 study conducted by the Environmental Protection Agency (EPA) was "inadequate" and that with current information "it is not possible to conclude" whether the Love Canal area is safe. Based on the same EPA study, HHS declared Love Canal livable, provided that the ongoing cleanup of toxic chemicals was pursued and that monitoring was continued. The technology office's report largely confirms criticisms of the EPA study which have been made by scientists from other government agencies, such as the National Bureau of Standards and also by environmental groups.

Stating that its confidence in the EPA study was "low," the technology office faults it on several counts. It complains that the sampling of soil was uneven, that too few samples were collected overall, and that the controls were inadequate. And even when sampling in specific sites did seem sufficient, the contract laboratories conducting the analysis "showed wide variability in performance," according to Raymond Kammer, deputy director of the National Bureau of Standards, who was quoted in the report.

The technology office suggests that Love Canal could be reinhabited using a "paced, cautious approach" if certain problems were addressed. But given the difficulty of satisfying the criteria, it seems unlikely that revitilization of the community will occur anytime soon. It calls for solutions to the technical problems of toxic chemical cleanup at the site, more testing of the area for contamination, and a long-term commitment by state or federal governments to continue monitoring the area for as many as 100 years.

The report concludes that the situation at Love Canal dramatically highlights the long-term need to develop federal standards that define when an area is safe—especially as more and more contaminated sites around the country are discovered. More data about the health effects of toxic chemicals are needed as well as the development of permanent solutions to cleanup, it says. But the report did not suggest how this should be accomplished. For now, "all we can say we know is that we don't know enough," summed up Senator Daniel Moynihan (D–N.Y.).—**MARJORIE SUN**

Congress Ponders rDNA and Environmental Risks

Prompted by recent developments in recombinant DNA technology for use in industry and agriculture, two House legislators are asking some fundamental questions about the field: What are the potential risks to the environment and public health when these new biological products are released? Do federal regulatory agencies have the statutory authority to regulate the substances?

The issues were examined at a 22 June hearing jointly held by Representatives Albert Gore (D–Tenn.) and Doug Walgren (D–Penn.), who are chairmen of subcommittees under the Science and Technology Committee.

Scientists from academia and industry, seemingly a bit nervous that the legislators were contemplating a tough regulatory stance, testified that the potential hazards were low. They cautioned that the federal government should maintain a flexible approach to monitoring the new biology. A. M. Chakrabarty, a University of Illinois microbiologist, told the panel that voluntary guidelines, such as those set by the National Institutes of Health Recombinant DNA Advisory Committee (RAC), are sufficient, even if some modifications in them are required in the future.

The committee recently approved for the first time three requests involving the deliberate release of genetically engineered products into the environment. Two cases involved the field testing of new varieties of corn, tomato, and tobacco plants. In the third case, RAC allowed the testing of genetically altered bacteria which may help control frost damage to plants.

Chakrabarty noted though that the guidelines do not specifically address the needs of his research—the release of microorganisms in toxic chemical cleanup or oil recovery. He is developing a microbe that may prove to be important in the cleanup of oil spills and also another organism that, in laboratory tests, detoxifies soil contaminated with 2,4,5-T. "Well-defined guidelines, not necessarily legislation," would be useful to evaluate the technology, he said.

Two other scientists pointed out that it is exceedingly difficult to predict the effect of a new organism or substance in an environment. But, said Martin Alexander of Cornell University and Fran Sharples of Oak Ridge National Laboratory, an effort to develop a method of risk assessment would be worthwhile. "A best guess is better than nothing at all," Sharples said.

It is not obvious which federal agency has statutory authority to regulate the intentional release of biotechnology products into the environment. The RAC guidelines are binding for federally supported researchers but not for industry (although many companies voluntarily conform).

EPA may have the clearest power to regulate the field. According to Donald R. Clay, the agency's acting assistant administrator of the office of pesticide and toxic substances, biotechnology products could be controlled under two different acts. Genetically engineered pesticides, for example, could easily be regulated under the Federal Insecticide, Fungicide and Rodenticide Act.

The Toxic Substances Control Act may cover other biological products because it has the power to regulate "new chemical substances," Clay said. He noted that the agency is actively exploring the issue.

The Agriculture Department, however, generally sees no need for increased monitoring. According to Edgar L. Kendrick, acting deputy assistant secretary of science and education, existing laws may give the department the necessary power to regulate, but said that RAC seems to provide adequate oversight. The de-