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-

partment "does not, at present, see the need for new regulations," he said.

A staff aide to Gore said after the hearing that the congressman did not have a specific piece of legislation in mind, but simply called the hearing to explore the issue.—**MARJORIE SUN**

Health Plan for Salvador Draws Mixed Reaction

Administration plans to bolster the health care system in El Salvador are being met with reservations by the professional organizations and voluntary relief groups that first drew public attention to the breakdown of health services in the strife-torn country.

On 2 June, the Administration announced a double initiative. The Department of Defense will send a military medical team to train Salvadoran personnel and the Agency for International Development (AID) will administer a larger scale program to revitalize the health care system.

Details of the programs have not been made public. However, the general reaction from the U.S. health professionals and private organizations which advocated American assistance has been to applaud the U.S. government's recognition of the need for humanitarian aid, but to question whether dispatching a military team and operation of an AID program through the Salvadoran government will meet the needs of civilians.

The medical team of 25 personnel would include physicians, medical technicians, and other specialists. Such training teams are assigned for varying lengths of time and a Pentagon source states that a 6-month period of activity is being considered for the medical group. It is not clear whether the team would assist only the Salvadoran military or provide for civilian health needs as well.

Final plans for the AID program, dubbed Health System Vitalization, hinge on completion of a survey of health care needs carried out by a Westinghouse Health Systems team scheduled to return from El Salvador as this was written. AID officials say that a review of the team's report and drafting of final program requirements will take about a month.

About $9 million has been earmarked for the AID program and AID officials say a larger amount, perhaps double that sum, will probably be sought. Congressional approval is required because the funds would have to be transferred from other AID programs.

U.S. scientific and medical organizations became involved in the issue after several delegations of health professionals visited El Salvador and reported a serious deterioration of health care services and widespread acts of violence against medical personnel (*Science*, 4 March, p. 1047). A common theme of the reports was that the Salvadoran government had failed to control its own security forces, widely believed to be responsible for a majority of the casualties among health workers.

A meeting was convened in Washington in mid-May at the behest of AID in part to explore the question of how U.S. private voluntary organizations might be involved in efforts to restore the health care system in El Salvador.

According to Betty Hutchinson who attended the meeting as an observer for the American Friends Service Committee, the consensus of those at the meeting was that "there isn't much that can be done until it's possible to guarantee the safety of medical personnel in the country."

One who found the meeting disappointing was member of a delegation that visited El Salvador early this year, John B. Stanbury, head of the International Nutrition Policy and Planning Program at MIT. Stanbury said he came away from the May meeting with the impression that "there will be little room for voluntary agencies" in the government program and that he is "feeling very frustrated at the moment."

The idea of a military medical team being sent in also seems to have been received coolly. In a letter that was part of an exchange with State Department deputy secretary Kenneth W. Dam, AAAS executive officer William D. Carey wrote, "With regard to the State Department's plans to address the humanitarian needs of the people of El Salvador, I question whether the program now being considered by the Department of Defense is the best way to provide medical care for the citizens other than the military."—**JOHN WALSH**

Ruckelshaus Courts Scientists

New Environmental Protection Agency administrator William D. Ruckelshaus recently courted leaders of the scientific community, asking them to help the agency "recover its equilibrium" and also "dissolve the dissonance between science and the creation of public policy."

Speaking before a gathering of 150 scientists at the National Academy of Sciences on 22 June, Ruckelshaus repeatedly tried to reassure his audience that the agency's future actions would be founded on a strong scientific base. The agency's "scientific analysis must be rigorous and the quality of our data high," he said, in a clear effort to distance himself from his predecessor, Anne Burford, and her politically charged tenure in office.

"We are not going to be able to emerge from our current troubles without a much-improved level of public confidence. The polls show us that scientists have more credibility than lawyers or businessmen or politicians and I'm all three of those," he said, drawing a laugh from the crowd. "I need your help."

Ruckelshaus devoted most of his speech stressing the need to improve methods of assessing risks associated with exposure to toxic substances and ways to decide how to handle the risks. "We must assume that life now takes place in a minefield of risk from hundreds, perhaps thousands, of substances. No more can we tell the public: you are home free with an adequate margin of safety," he said.

Ruckelshaus remarked that federal regulatory agencies should have a common statutory formula for evaluating the hazards of pollutants, but he did not elaborate specifically how this would be achieved. Other administrators have tried to do the same over the years, but met with little success. Ruckelshaus acknowledged that legislative change "in the current climate is difficult." He noted that the agency's budget request for fiscal 1984 targets more money for research in risk assessment. Overall, Ruckelshaus pledged a different way of doing business than Burford but did not indicate any specific shifts in policy.

—**MARJORIE SUN**