EPA Launches Major Dioxin Attack

The Environmental Protection Agency (EPA) has announced a comprehensive plan to do battle with dioxin. Calling dioxin "one of the most perplexing and potentially dangerous chemicals to pollute the environment," EPA deputy administrator Alvin Alm recently described a complex program that will attempt to determine the extent of dioxin contamination across the nation, assess the risks of human exposure, define ways to limit exposure, and also develop methods for cleanup. The program will draw upon the resources of at least four administrative branches in EPA.

The program does not encompass any new research efforts, but it is the first time EPA has developed a systematic plan to coordinate the multitude of activities associated with broad contamination by a single pollutant. Alm said that EPA in the past has responded in "a piecemeal" fashion to pollution problems involving chemicals such as Kepone, polychlorinated biphenyls, or polyvinyl chlorides. The new management plan for dioxin can serve as a model for response to these kinds of problems in the future, he said.

Since the discovery last year of widespread dioxin pollution at Times Beach, Missouri, and many other sites, public and congressional concern about the chemical has deepened enormously. Congress went so far as to appropriate $4 million to EPA in fiscal year 1984, directing the agency to develop a proposal to test for dioxin contamination at sites across the country. The recently announced program is an outgrowth of the congressional request.

EPA will conduct a massive sampling campaign, concentrating its efforts on the most toxic of the 75 dioxin isomers—2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD). This isomer was a contaminant produced during the manufacture of various herbicides such as Agent Orange. (The production of these herbicides is now banned in the United States.) The agency believes that 80 to 95 percent of 2,3,7,8-TCDD produced in this country will be found at the production and disposal sites of the herbicidal component, 2,4,5-trichlorophenol. These places, which total about 20, will be given priority in the list of areas to be sampled.

Although these sites may prove to have the highest levels of contamination, the agency will have much more sampling to carry out. EPA has defined six other categories of potentially polluted sites and ranked them according to importance. EPA estimates that in one mid-level category, which includes combustion sources such as incinerators of hazardous and municipal waste, the number of potential sites to be tested may run into the millions. The lack of laboratories to handle to load of samples may prove to be a problem.

Alm said that EPA will decide whether people should be evacuated from an area if sampling shows a concentration of one part per billion or more. This is the cutoff level set by the Centers for Disease Control but, as yet, the effects of low-level exposure to humans is unclear. EPA will continue to work with agencies to determine the long-term health effects.

According to the program, EPA will also conduct research to assess the toxicity of other isomers, determine their specific properties, evaluate their fate in the environment, and develop risk assessments.—**MARJORIE SUN**

DOE Selects Nuclear Neophyte for Oak Ridge

The Department of Energy has selected the Martin Marietta Corporation to run a complex of nuclear research, enrichment, and weapons facilities at Oak Ridge, Tennessee, and Paducah, Kentucky. Martin Marietta beat Westinghouse and Rockwell International in a close contest for the contract to run the $2-billion-a-year operations, which are currently being managed by the Union Carbide Corporation. Union Carbide touched off a scramble when it announced last year that it wanted to withdraw as operating contractor for the facilities.

Martin Marietta will run the Oak Ridge National Laboratory; the Y-12 Plant in Oak Ridge, which produces weapons components and works on weapons design; and gaseous diffusion plants for enriching uranium at Oak Ridge and Paducah. The 5-year contract will cover the costs of operating the facilities plus a fee.

The choice of Martin Marietta is somewhat surprising because the company has no previous experience in nuclear programs or in operating government facilities. According to a report in *Energy Daily*, a DOE selection board made Westinghouse its first choice, followed by Rockwell. Martin Marietta ranked third. But DOE's assistant secretary for management and administration, Martha Hesse, overturned the board's recommendation because she believed Martin Marietta has the strongest management team.—**COLIN NORMAN**

OTA Memo Critical of NRC Cancer Study

Last summer, the National Research Council (NRC) issued a report saying there is no evidence that veterans stationed near Hiroshima and Nagasaki in 1945 have suffered a higher than normal incidence of multiple myeloma.

The study was promptly criticized for its poor methodology, including an inappropriate control group and reliance on too small a sample (*Science*, 19 August 1983, p. 733).

Now the Office of Technology Assessment (OTA) has issued a staff memorandum reiterating the criticisms. The OTA suggests that the procedures used by the NRC committee could have resulted both in overestimates of the normal number of cases one might expect and underestimates of actual ones. Therefore, the conclusion that no excess cases occurred "is not supported by the analysis," the OTA said.

The purpose of the NRC study was to assess the need for an elaborate epidemiological survey of exposed veterans, an idea suggested by veterans' groups but resisted by the Pentagon. If an excess of multiple myeloma was apparent among a small, select group of veterans, then a full-scale study might be conducted. Because no increased risks were detected in the select group, NRC panel members and staff concluded that the elaborate epidemiological survey was unnecessary.

The OTA memo (which has not