



Current Report

Health Hazards

OSHA, NIOSH, INDUSTRY INVESTIGATING HIGH RATE OF BRAIN CANCER IN TEXAS PLANT

Medical investigators from the Occupational Safety and Health Administration and the National Institute for Occupational Safety and Health are investigating a suspected high incidence of brain cancer at two Texas chemical plants.

Federal investigators, as well as industry officials and Texas OSHA personnel, are attempting to determine if the deaths of nine workers at Union Carbide Corporation's Texas City, Tex., plant represent an unusually high incidence of a specific type of cancer, and whether the cancers were caused by any of the chemicals used at the plant.

Officials also are investigating five brain cancer deaths at the nearby Monsanto Company plant.

Death certificates of 455 former Union Carbide employees indicated 11 cases of brain cancer, all of which occurred between 1962 and 1978, according to plant manager Damon Engle. Nine of the eleven cases were confirmed as glioblastoma multiform, and a tenth employee, who is still alive, is presumed to have the same type of cancer.

According to NIOSH and OSHA officials, glioblastoma multiform has been linked to vinyl chloride exposure in both humans and animals, and to exposure to acrylonitrile and nitrosoureas in animals. Vinyl chloride and acrylonitrile, used in the manufacture of plastics and in chemical processes, either were used or are still in use by both Monsanto and Union Carbide, officials report.

However, federal and industry officials were quick to say that vinyl chloride and acrylonitrile exposure are only starting points for the investigation. Part of the investigation effort will be devoted to determining if any of the hundreds of chemicals in use at the plants contributed to the cancers.

Vinyl chloride is known to cause angiosarcoma, a rare form of liver cancer, but a search of death certificates revealed no deaths from this disease among former Union Carbide workers, Engle said.

The investigation was triggered by a complaint to the OSHA Houston South area office on November 27, 1978. A compliance investigation of the plant is currently under way, in addition to the medical study.

Medical Study

After a preliminary compliance investigation, OSHA January 25 requested NIOSH assistance in conducting an epidemiological investigation at the plant.

Representing NIOSH in the investigation are physicians Sanford Leffingwell and William Halperin and epidemiologist Sherry Selevan, all from the division of surveillance, hazard evaluation and field studies in Cincinnati, Ohio.

Victor Alexander, a physician and Joseph Wagoner, an epidemiologist, are the OSHA staff members on the investigation.

The investigation of the Union Carbide plant began in early February, and the Monsanto investigation a few weeks later, officials said. No conclusions have yet been drawn, nor are any expected for several weeks.

According to Alexander, the nine cases appear to present a "striking percentage" of the particular cancer for the group of workers involved. Before any determination can be made, detailed work histories must be gathered, all cases of glioblastoma multiform must be correctly identified, and

determination made of how many cases could be expected in the worker population.

Later, a case/control study will be designed and performed as well as a historical prospective cohort study.

Further Industry Studies

According to Engle, Union Carbide plans to augment the OSHA/NIOSH study with a "substantial" epidemiological study of death certificates of former Union Carbide employees throughout the country.

"Union Carbide has determined that the medical files are substantial enough and that current knowledge of chemicals indicates an epidemiological study might yield beneficial results," Engle said. The company plans to look at death certificates of 50,000 persons who worked in the company's chemicals and plastics divisions for at least one year.

"It is evident that OSHA and NIOSH have made top people available and there is a high degree of three-way cooperation in this study," Engle said. "We are most anxious to supplement NIOSH protocol and to look for any additional relationships."

OSHA's Participation

At the March 2 meeting of the National Advisory Committee on Occupational Safety and Health, Eula Bingham said OSHA and NIOSH are probing the problem in depth.

Bingham, assistant secretary of labor for occupational safety and health, was questioned about the propriety of OSHA's involvement in an epidemiological study. She replied that the principle behind OSHA's involvement in investigations of this type is the possibility of OSHA taking regulatory action as a result of the investigation.

In this or any other investigation, "we certainly want to have our professionals involved," Bingham said. "We don't want to wait six months down the road; if we find something, we would want to act immediately."

She added that it is important to develop a "spirit of cooperation and understanding" with the company, and she praised the company's cooperation in providing necessary information to the investigators.

General Policy

REGULATORY COUNCIL CALENDAR LISTS OSHA ACTION ON PESTICIDES, CARCINOGENS

The Occupational Safety and Health Administration will take action on standards for pesticides, hexavalent chromium, and carcinogens during the next six months, according to the Calendar of Federal Regulations issued by the Regulatory Council February 28.

The calendar (44 FR 11388) lists major regulations under development in 20 of the Regulatory Council's 35 member agencies for which rulemaking notices are expected during the next year. Preparation of the calendar was ordered by President Carter last year as an effort to catalogue federal regulatory activity and identify costly or duplicative regulations (Current Report, November 2, 1978, p. 796). Criteria for selection of rules included in the calendar follow guidelines for analyses of "significant" regulations as outlined in Executive Order 12044.

The Labor Department's section of the calendar, which appears in the Full Text section of this Current Report, noted that OSHA's final standard for carcinogens should be issued in May 1979. Notices of proposed rulemaking for hex-