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NIOSH study finds more brain cancer at Union Carbide

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Both Union Carbide officials and government investigators who conducted independent studies of brain cancer deaths among workers at the company's Texas City plant agree that the disease strikes plant workers at a rate about two to three times the national average.

But that's about all Union Carbide and the National Institute of Occupational Safety and Health can agree on.

The two studies disagree on the number of victims and on the possibility that the cancer was caused by some chemical in the plant.

They even disagree on the significance of the higher rate of brain cancer deaths at the plant.

NIOSH, based in Rockville, Md., said in a report issued Wednesday that it found 23 brain cancer deaths among former employees of the plant since it opened in 1941. Union Carbide, in its study released two weeks ago, said it found 12 deaths between 1941 and Dec. 31, 1977.

But Union Carbide studied only white male workers at the plant while NIOSH studied all male employees, say Damon Engle, plant manager, and Deborah Van Brunt, a NIOSH representative.

Engle said if the company's study were broadened to include the non-white workers in the NIOSH study, there would be only 21 deaths and one additional case of brain cancer. The 22nd person is alive, he said.

Ms. Van Brunt said Wednesday that NIOSH investigators counted death certificates that listed brain tumors or brain cancer as the cause of death. She said the study was conducted that way because that is the way national brain cancer death rates are figured.

She said her agency does not dispute the accuracy of Union Carbide's research, only its conclusions.

Engle said the company went further than the death certificates and checked autopsies and other medical records.

For instance, Engle said, one former plant employee, whose death certificate listed brain cancer, in fact died of lung cancer.

Engle said the company study included only the limited number of current and former employees — about 6,600 instead of the approximately 9,000 studied by NIOSH — because the company thought it was following ground rules agreed to in February 1978 when the studies began.

"If NIOSH had used the same rules, they would have found the same 12 we did," Engle said. "We were not aware that NIOSH would extend the study and change the population (studied).

"We were aware of the additional cases (reported in the NIOSH study). We looked at the exposure and job assignments of them all and it wouldn't have changed our conclusions," he said.

Engle said there was no correlation between an employee's work assignment or exposure to any chemical and development of brain cancer. The company found that no brain cancer cases have been reported among workers who first were hired in 1955 or subsequent years.

"Nothing happened in 1955 that we can figure, and we have looked hard at what our neighbors did," Engle said.

Ms. Van Brunt said the Union Carbide study did not take into account that a possible combination of chemicals might be the cause of the disease.

She said a small increase above the expected number of brain cancer cases over the period could be written off to a statistical deviation, but not a rate two or three times the national average. "It's not likely to be a sampling error," she said.

Engle said that while the company is concerned about the high rate, it is much lower than other types of cancer found to be caused by workers' exposure to chemicals.

In most of those cases, investigators have found the cancer rate 80 to 100 times the national average, Engle said.

Also, he points out, available statistics are inadequate to compare workers at the Union Carbide plant to the rest of the Texas Gulf Coast or to the state as a whole.

Because of the excellent medical facilities in the Houston area, there is "bound to be an accurate diagnosis," he said. "National numbers can be misleading."

Engle said he recently read a similar study showing that in Nigeria the rate of brain cancer is one per 100,000 per year while in Rochester, Minn., the rate is 15 per 100,000.

There are no petrochemical plants in Rochester, he said, but it is the location of the famed Mayo Clinic.