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Cancer deaths controversy

Studies differ over numerous cases at Texas City plant

BY TOM MORAN
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Both Union Carbide officials and government investigators who conducted independent studies of brain cancer deaths in the company's Texas City plant agree that the disease strikes plant workers at a rate about 2-to-3 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 that if the company's study was 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.

Epidemiologists at the M.D. Anderson Hospital and Tumor Institute here say it is not uncommon to see such differences in comparable studies.

That's because there can be different

(See INVESTIGATORS, Page 12)

Investigators agree on cancer rate, disagree on possible causes

(From Page 1)

criteria used to define brain cancer cases and there can be studies of different groups, they said.

For instance, one study may focus on all workers at a plant, including secretaries and office workers, while another may only look at persons who work closely with chemicals, the epidemiologists say.

Studies also can differ on how they determine what is a brain cancer death, the epidemiologists say. One may count only death certificates, while another study group may check hospital records

and talk to the workers' physicians or include only cases in which brain cancer was determined by an autopsy, they say.

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 says 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 simply 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 were first 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 error, 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 that he recently read a similar study that showed that in Nigeria the rate of brain cancer is 1 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.

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