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TEXAS CITY PLANT

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News from up the coast a
few miles.

D.L.E.

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Cancer institute's findings trigger refinery studies

By BILL INMAN
Post Reporter

Workers at Texaco's largest petroleum refinery and Gulf's largest refinery, petrochemical plant apparently run an abnormally high risk of developing fatal cancers of the stomach, brain and lung, the National Cancer Institute has reported.

Both plants are in Port Arthur.

The NCI "hypotheses-generating" study also suggested that workers in the entire petrochemical industrial field are exposed to increased risk of several cancers, notably those affecting digestive and respiratory systems.

Prompted by the findings, the cancer institute said Wednesday it is initiating epidemiological studies at both plants.

"We're negotiating now with the companies on details," said a spokesman for NCI's environmental-epidemiology branch in Bethesda, Md. "We expect the studies to begin shortly, perhaps within a period of weeks."

A copy of the study obtained by The Post indicated the NCI was invited to examine Oil, Chemical and Atomic Workers International Union membership records two years ago to evaluate for the first time cancer risks among a large group of workers exposed to petroleum and petroleum products. The study population consisted of 2,185 males whose deaths were reported between 1947 and 1977 to OCAW locals in Texas.

The union, the largest labor organization for petroleum workers, has nearly 30,000 members in Texas.

The researchers eventually obtained death certificates from the state's vital records division and used that data to compute the relative frequency of fatal diseases among the workers.

In the course of its research, NCI looked at worker deaths at five plants which recorded at least 100 deaths. From that examination, the cancer data on Gulf and Texaco plants emerged.

The number of deaths was statistically compared to deaths in the male population in the U.S., and the deaths from specific cancer forms to the number expected among all cancer forms.

At the giant Texaco refinery, termed "Plant A" in the study, researchers examined 421 deaths among white males and 54 deaths among nonwhite males and found:

■ Five brain and central nervous system cancer deaths among white males with the union 10 or more years — a death rate about three times higher than expected in control populations based on mortality from all causes and from all forms of cancer in the U.S. male population.

■ Five stomach cancer deaths among nonwhite workers — three times the rate expected based on death from all causes and twice the rate expected for deaths from all forms of cancer.

■ Nine brain tumor cancer deaths with three death certificates specifying

Please see Findings/page 27A

Findings on cancer trigger studies

From page 1

the cell type, glioblastoma multiforme, as the cause of death.

At Gulf's refinery and petrochemical complex, "Plant B" in the report, the NCI recovered 413 death certificates and observed:

■ Six stomach cancer deaths among white workers with the union 10 or more years — three times the rate expected in a control population based on deaths from all causes and twice the rate expected from cancer deaths.

■ Seven stomach cancer cases among nonwhite workers — three times the rate expected from all causes and double the rate expected for proportionate cancer mortality.

■ 13 lung cancer deaths among nonwhite workers — triple the rate expected based on deaths from all causes and almost double the rate expected for cancer.

In addition, NCI found a higher than expected death rate among all its white male OCAW decedents studied for digestive, respiratory, skin, brain and central nervous system cancers.

The greatest increase emerged in the number of brain and central nervous system cases. Some 25 cases were observed, while about half that number were expected.

Both companies expressed concern at the preliminary findings, but cautioned that far more research was warranted before drawing any conclusions.

"Texaco points out the National Cancer Institute study is not the final state-

ment concerning fatal disease risk," said Texaco spokesman Larry Bingaman. "But rather it is a preliminary or hypotheses generating report and that caution must be observed in interpreting the results of the analysis."

Gulf spokesman Jim Gatten said the company's review of the report, which included "outside consultants," found it "preliminary and incomplete" as indicated by NCI's chief project researcher Terry Thomas.

He said Gulf has requested from the NCI a detailed copy of the data, upon which the report was based.

"Since the findings are preliminary and the sample size is small (413 death certificates were studied at the Port Arthur plant) we are in agreement with the author that more in-depth studies are needed to evaluate the significance of the data."

NCI cited several limitations in the study, including the point that about 18 percent of the worker death certificates could not be located, and occupational histories to determine potential exposure hazards were unavailable. "Gulf is conducting an internal study of the death certificates on Gulf's U.S. employees, including those at the Port Arthur refinery," Gatten continued. "Included in this study is information on Port Arthur employees who died while still employed as well as on retired employees, both union and non-union."

"Particular emphasis is being placed on their previous work sites and work exposures."

Both Texaco and Gulf said they were participating in a study by the University of Texas, compiling and reviewing mortality records of workers at several sites in both Orange and Jefferson counties.

In addition, the companies said they

were contributing data to a comprehensive American Petroleum Institute study examining some 100 petroleum refineries for adverse health effects in the workplace.

A previous study published in 1974 by the Petroleum Institute "found no significant increase in risk for employees in these operations," said Texaco's Bingaman. That study examined 20,000 refinery workers between 1962 and 1972.

Both Gulf and Texaco plants were founded near the turn of the century. Gulf's plant has about 3,500 workers and Texaco's more than 5,000.

H.J. McLain, OCAW's director in Texas and Louisiana, said union officials were informed of the cancer findings recently and are "extremely concerned" that additional studies take place soon.

"Our members are surprised and a little frightened," he said.

Thomas said the report's findings were consistent with an excess of stomach cancer deaths reported recently among Canadian petroleum refinery workers.

She said studies of vinyl chloride workers have shown an increased frequency of brain tumors and "currently a cluster of brain tumors among employees of two chemical plants in Texas is under investigation."

As reported in The Post, federal occupational health scientists are investigating 11 deaths at the Union Carbide chemical plant and five deaths at Monsanto's plant, both in Texas City, for evidence of chemical exposure hazards.

"Despite limitations in data and methodology," wrote NCI's Thomas, "results of the present study suggest that workers in this industry are at increased risk of certain cancers. Further studies are necessary to support and clarify these findings."