



UNION CARBIDE CORPORATION P. O. BOX 471, TEXAS CITY, TEXAS 77590

February 8, 1983

TO ALL TEXAS CITY UNION CARBIDE EMPLOYEES:

Since February 1979, we have kept you informed on the joint Union Carbide/National Institute of Occupational Safety and Health (NIOSH) epidemiology studies.

NIOSH has just published the final results of their Cohort Mortality Study in the Journal of the National Cancer Institute. An abstract of their paper is on the reverse side.

There are many areas of agreement in the findings of their study when compared to Union Carbide's study, which was reported to you in November 1981. There are also some areas of disagreement particularly in the conclusions. The following may help you understand the specific areas of agreement and disagreement. As you can see, for the most part we concur with the majority of NIOSH's findings and conclusions.

AGREE: Overall mortality rate was lower than U.S. national rates in both "all employee" and "hourly employee" groups.

AGREE: Overall cancer mortality rates was lower than U.S. national rates in both "all employee" and "hourly employee" groups.

AGREE: There is an elevated rate of brain tumor mortality that cannot be explained by normal background rates.

AGREE: "The possibility must be considered that brain tumors might be diagnosed more frequently among the employees of this plant than among the general population as a result of the petrochemical workers' better access to medical care."

AGREE: "The striking deficit of nonmalignant respiratory disease observed in this study is consistent with that reported in previous studies of oil refinery populations. Strict enforcement of antismoking rules in these facilities to prevent explosions may be partially responsible for this deficit as well as for the observed deficits of lung cancer, bladder cancer and cardiovascular disease."

DISAGREE: "These data suggest an occupational etiology for certain brain tumor deaths in petrochemical workers."*

*Direct quotations are from the article accompanying the abstract.

UCC 097713

We disagree that the data "suggest" an occupational cause of the brain tumor deaths. Our studies, which were conducted using the same data base, did not reveal a strong correlation between the length of employment and brain cancer risk. Moreover, no associations were found in either study with any particular chemical or work area of the plant. Other chemical plants in this area have been studied and fail to confirm any suspicion of a general chemical-related exposure risk.

We firmly believe that there remains no cause for alarm based on the results of these studies. We will continue to follow the health of our employees and to ensure that our standards and practices provide more than adequate protection from known health hazards.

Union Carbide's Cohort and Case Control studies, after having been subjected to extensive review by eminent scientists will appear in the March issue of the Journal of Occupational Medicine.

We will continue to keep you informed of any further reports.



D. H. Glenn, M.D.
Medical Director
Solvents and Coatings
Materials Division



F. S. Provenzano
Plant Manager

Mortality From Brain Tumor and Other Causes in a Cohort of Petrochemical Workers'

Richard J. Waxweiler,^{2,3} Victor Alexander,⁴ Sanford S. Leffingwell,³ Marie Haring,³ and J. William Lloyd^{4,5}

ABSTRACT—To evaluate a suspected excess of deaths due to brain tumor (BT) among petrochemical workers, a retrospective cohort mortality study was conducted among 7,595 men ever employed at a plant in Texas City, Texas, between 1941 and 1977. Among hourly employees, overall mortality was lower than expected from U.S. national rates (standardized mortality ratio (SMR)=79). However, 19 BT deaths (International Classification of Diseases, seventh revision, codes 193, 223, and 237) among hourly employees were observed as against 9.6 expected (SMR=198), and with extension of the analysis to include BT deaths occurring in 1978 and 1979, 22 deaths were observed versus 10.7 expected (SMR=206). Fifteen years or more after being hired, 19 of these workers died from BT versus 7.2 expected (SMR=263), and the standardized mortality ratios increased with duration of employment to 377 for hourly workers who had worked over 20 years. Although nonoccupational etiologies cannot be dismissed, these data suggest an occupational etiology for certain BT deaths in petrochemical workers.—JNCI 1983; 70:75-81.

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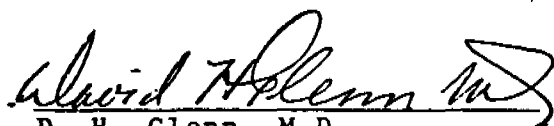
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We disagree that the data "suggest" an occupational cause of the brain tumor deaths. Our studies, which were conducted using the same data base, did not reveal a strong correlation between the length of employment and brain cancer risk. Moreover, no associations were found in either study with any particular chemical or work area of the plant. Other chemical plants in this area have been studied and fail to confirm any suspicion of a general chemical-related exposure risk.

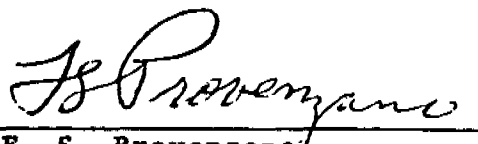
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