

EMPLOYEE COMMUNICATION
REPAUNO BENZENE STUDY

Preliminary results of a Du Pont study of Repauno plant employees who have had potential for exposure to benzene have shown a small, but statistically significant excess of leukemia cases and bladder tumors.

The epidemiology study included 884 employees and pensioners who were on plant rolls between 1946 and 1977 and had potential for benzene exposure. Incidence of disease among these employees was compared with incidence of disease throughout the Du Pont Company. About one case each of bladder tumors and leukemia would have been expected. Four cases of bladder tumors and three of leukemia were found. While there is evidence that, at high exposure levels, benzene is a leukemogen, there is no medical evidence linking bladder tumors with benzene exposure.

In addition, Repauno was included with one other Du Pont plant in a Chemical Manufacturers Association (CMA) sponsored mortality study of about 7,700 people at 7 plants in 6 companies. The CMA study shows a small, but statistically significant excess of deaths due to leukemia but no significant excess due to bladder cancer when compared to unexposed workers on the plants in the study.

The cases of leukemia and bladder tumors occurred in employees potentially exposed to benzene during plant operations in the 1950's, when possible carcinogenic effects were not well recognized and operating procedures and personal protection were less stringent.

Since the 1950's, the plant has taken a number of steps that have reduced potential exposure. Facilities have been modified by converting from batch to continuous operation, relocating controls from the operating area to a central control room, and installing a powered exhaust system. Procedures have been improved by adding elastomeric glove and respirator requirements.

In the past, benzene exposure limits were agreed upon by government and industry health experts. The limit was set in 1946 at 100 ppm and was subsequently lowered to 50 ppm in 1947, 35 ppm in 1948, 25 ppm in 1957 and finally 10 ppm in 1969. Federal regulation began in 1971 when OSHA adopted the current limit of 10 ppm for an 8-hour Time Weighted Average (TWA). Exposures at Repauno historically have been lower than these limits and currently are less than half the OSHA limit. Current exposures should not cause adverse health effects.

The plant is continuing its effort to further reduce potential exposures. For example, an open air nitrobenzene operation will start up early in the second quarter of 1984, and the plant will continue to require respiratory protection for tasks where exposures might represent a health threat.

The Company will continue to monitor new information relating to benzene as it becomes available and will also further analyze the data from the Repauno and CMA studies. We hope this further analysis may provide a better basis for explaining the meaning of the data that have been gathered. We will continue to keep you advised of developments relating to the toxicity of benzene.

WJM/cg
attachments

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