FINAL - 11/30/76

Communications With Employees in Benzene Use Area

(For use by ICD supervision at Repauno; PP&R supervision at Sabine; Orchem supervision at Chambers Works; PID supervision at Victoria; Elaschem supervision at Beaumont and Pontchartrain and Bio supervision at Belle. NOTE: Individual plant management may wish to make local revisions of the following to meet specific needs at the site.)

In recent months, there has been activity by government and industry in connection with the health hazards and possible carcinogenicity of certain chemicals. This includes reports suggesting chronic exposure to benzene as a possible cause for certain types of leukemia.

The Industrial Chemicals Department, on the advice of Du Pont's Haskell Laboratory for Toxicology and Industrial Medicine, and under corporate guidelines established in February 1975, has declared benzene a suspected carcinogen. A suspected carcinogen, by these guidelines, is a substance for which there exists moderate, but inconclusive, evidence that it is a human or experimental carcinogen. The action is being taken as a precaution to alert you to the potential hazard and is based on reported epidemiological studies associating benzene with leukemia in the rubber industry and action proposed to be taken by government agencies.

Benzene has been used at Gibbstown and Deepwater, N.J., plants for more than 60 years; at Orange and Victoria, Tex., plants for 25 years; at Beaumont in the last three years and at Pontchartrain for 13 years.

Studies are being made of employee work assignment histories and timing of leukemia occurrences to determine if any cases might be work related. Studies are continuing to accumulate additional information for evaluation. A preliminary review of work histories at the plants where benzene has been used has not revealed any work relationship with any incident of leukemia. You will be kept informed of new information or developments.

It has been known for many years that acute exposure to benzene can have toxic effects on the central nervous system and long-term exposure can result in anemia. Therefore, we have been and are taking precautions to maintain airborne concentrations below the OSHA-recommended time-weighted average limit of 10 parts per million. Efforts to minimize airborne or skin exposure will continue and include monitoring of air samples, enforcing safe operating procedures, and the use of protective material and clothing. (NOTE: Local plant management may wish to insert, at this point, exposure data.)

Your supervisor is prepared to answer any questions you may have.

# # # # #

(The following is a series of Questions and Answers which may be incorporated in any local statement as appropriate, or used to answer employee questions.)

QUESTIONS AND ANSWERS

Q. In laboratory tests, what concentrations of benzene cause cancer?

A. No animal species developed leukemia in laboratory experiments in which test animals were exposed to large concentrations of benzene, according to available scientific literature. Additional studies are continuing. Du Pont's Haskell Laboratory did not conduct these tests, but does concur.

Q. Why is benzene considered a suspected carcinogen?

A. In essentially all of the human exposures to benzene, the exposures were to mixtures of compounds in which benzene was a common component. Because the literature on a number of epidemiological studies finds associations between benzene exposure and the incidence of leukemia, the chemical is considered a suspected carcinogen. Usually, contact with these mixtures has been chronic exposure at high levels.

Q. What is the incidence of leukemia at this site?

A. Epidemiological data evaluations and health record analysis of Du Pont employees, past or present, will continue at plants where large quantities of benzene are used. Locally, (insert available and applicable data). To date, no work relationship with the incidence of leukemia has been established.

Q. What level of exposure is considered safe?

A. It is difficult, if not impossible, to establish no-effect levels of exposure to benzene since documentation of exposure levels,

(The following is a series of Questions and Answers which may be incorporated in any local statement as appropriate, or used to answer employee questions.)

QUESTIONS AND ANSWERS

Q. In laboratory tests, what concentrations of benzene cause cancer?

A. No animal species developed leukemia in laboratory experiments in which test animals were exposed to large concentrations of benzene, according to available scientific literature. Additional studies are continuing. Du Pont's Haskell Laboratory did not conduct these tests, but does concur.

Q. Why is benzene considered a suspected carcinogen?

A. In essentially all of the human exposures to benzene, the exposures were to mixtures of compounds in which benzene was a common component. Because the literature on a number of epidemiological studies finds associations between benzene exposure and the incidence of leukemia, the chemical is considered a suspected carcinogen. Usually, contact with these mixtures has been chronic exposure at high levels.

Q. What is the incidence of leukemia at this site?

A. Epidemiological data evaluations and health record analysis of Du Pont employees, past or present, will continue at plants where large quantities of benzene are used. Locally, (insert available and applicable data). To date, no work relationship with the incidence of leukemia has been established.

Q. What level of exposure is considered safe?

A. It is difficult, if not impossible, to establish no-effect levels of exposure to benzene since documentation of exposure levels,

noted in literature, was very poor. However, Haskell Laboratory believes an acceptable level of exposure is 10 ppm.

Q. What can we do to limit exposure?

A. Good industrial hygiene practices should always be followed to limit exposure to the lowest practical concentration of air contaminants. Practices now in force are sufficient to meet the acceptable level, but methods to further reduce are being considered. Meantime, current rules regarding the handling of benzene should be followed to the letter.

Q. What have government agencies recommended?

A. Based on epidemiological studies in the rubber industry on exposure to benzene, NIOSH, in a "Revised Recommended Benzene Standard" on August 19, 1976, recommends regulating benzene as a "carcinogen in man". ACGIH in its 1976 edition, continued an A2 classification for benzene, "industrial substances suspect of carcinogenic potential for man".

# # # # #