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E. I. DU PONT DE NEMOURS & COMPANY
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EMPLOYEE RELATIONS DEPARTMENT

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LIVER ENZYME STUDY OF WORKERS EXPOSED
TO C-8 AT PARKERSBURG

The following is a summary of conclusions reached at our meeting 1/25/80 to discuss the above study.

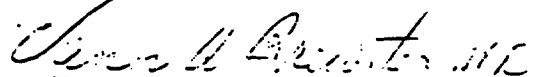
- Based on the above study there is no conclusive evidence of an occupationally related health problem among workers exposed to C-8.
 - Nearly all individual blood enzyme levels are in an acceptable range. However the mean SGOT* in the TFE process operator group and the mean AP** in the FEP process group are elevated when compared to other plant groups. Those elevations do not indicate conclusive evidence of a health problem but they do justify further follow-up.
 - There were no significant differences of the mean bilirubin and mean LDH*** blood levels of the cohorts when compared to other plant groups.
 - Based on available data we are unable to explain why only the mean SGOT would be elevated in one group and only the mean AP would be elevated in another group. Normally we would expect better correlation of all liver studies when compared to each other.
 - After comparing the local laboratory liver enzyme results with the results from Upjohn on the same employees there appears to be a local laboratory problem resulting in consistently higher SGOT readings. Therefore we recommend that either a different technique or a different laboratory be considered for routine medical examinations on all employees at the Parkersburg plant.
- * Serum glutamic oxalacetic transaminase
** Alkaline phosphatase
*** Lactic dehydrogenase

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- For epidemiological reasons, we recommend that duplicate SMA-12's be obtained on employees in the exposed cohorts and control cohort using the present technique and present laboratory.
- There were conflicting data in our attempt to correlate organic fluoride levels with liver enzyme levels. We recommend continuation of biological monitoring of blood organic fluorides as follows:
 1. Get fluoride levels on those employees not yet tested but in cohort jobs.*
 2. Get fluoride levels in a year or less on employees in cohort jobs* and already sampled.
 3. In a year or less reassess the need for and/or frequency of additional samples.
- We recommend that the plant continue transmittal to the Medical Division SMA-12's, relevant medical data, and relevant work history data on all employees now in the study and employees newly assigned to cohort jobs. This includes non-Teflon® area employees in the control group.

A report of the above study results from Bill Fayerweather will follow in the near future.

MEDICAL DIVISION


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- * TFE Polymerization Process Operator, TFE Service Operator,
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VAB/kcs

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