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INTER-OFFICE CORRESPONDENCE

Date: 27 July 1987

To: Murray Davis
Bob McCorquodale
Lamar White

From: J. C. Delgado, Jr.

Location: 36 West

Subject: Draft Enzyme
Protocol

Attached is a copy of the DRAFT enzyme protocol for the Lake Charles "B" area. Take out your red pencils and mark it up. Return the marked up copy to me as as possible.

If there are questions, please call.

Thanks,



J. C.

SL 048874

DRAFT PROTOCOL FOR LIVER ENZYME EVALUATION AND ACTION

These guidelines are to be used by the examining physicians when assessing the liver function studies for the employees of Lake Charles Plant "B". These are to be used as guidelines to assist the physician in his/her decision making process.

These guidelines are in no way meant to circumvent the judgement of the physician in individual cases when an alternative course of action is considered more appropriate. The overriding goal is to ensure that the Plant "B" work environment does not materially impair the health of individual employees.

1. Blood sample per the OSHA vinyl chloride standard for all employees of Plant "B".
2. If an enzyme is judged by the examining physician to be abnormally elevated, resample in 2 to 4 weeks (at the discretion of the examining physician).
3. If the resample yields an abnormally elevated alkaline phosphatase, AST (SGOT), or ALT (SGPT), the employee must be resampled. If the enzyme levels are increasing, the resample should occur in two weeks (an upward trend in enzyme levels needs evaluation). If the enzyme appears to have stabilized, a resample should be performed in four weeks to verify the stabilization. This resampling schedule should be followed until a decreasing enzyme pattern is established. An elevated GGTP should not be resampled unless it is 2.5 or more times the normal value. Generally, the GGTP is not specific enough to be used in a health evaluation. If the examining physician decides to use it, he must only use it in conjunction with a triglycerides analysis (to consider the possibility of fatty infiltrate into the liver).
4. Although the enzyme levels are primary screening indicators, the examining physician must evaluate the employee to completely assess his medical condition with an emphasis on risk factors effecting the liver. This may require that further test be performed to assist in the evaluation of the employee's medical condition.
5. Unless the examination reveals clinical symptoms that, combined with the enzyme levels, indicate a medical condition which would place the employee at risk, the employee should not routinely be restricted from Plant "B". Employees with clinical symptoms and enzyme levels indicating liver disease must be restricted from Plant "B" employment and followed routinely until the condition clears.
6. The physician will work with each employee on an individual basis to remove any risk factors (that may be contributing to elevated enzymes). This may be done in conjunction with a consulting gastroenterologist. This will

include a detailed review of the individual's medical history to include past blood transfusions, hospitalizations, and work exposure history (to include the current industrial hygiene monitoring history for his assigned job), etc.

7. If an employee's liver enzymes (AST, ALT, Alkaline Phosphatase) remain elevated and all other risk factors have been discounted, a job restriction from Plant "B" should be considered. After the restriction period (length of which is at the discretion of the examining physician) the employee's enzyme levels should be followed routinely. If, after a complete clinical investigation, the physician determines that an employee cannot work in Plant "B" without risking permanent liver injury, a permanent restriction should be instituted.