

CHEMICALS



INDUSTRIES

INTEROFFICE / LAKE CHARLES

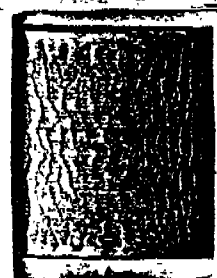
TO Phil Snyder DATE December 21, 1977
FROM H. B. Lovejoy, M.D. SUBJECT EDC Medical Guidelines

I have received your outline for the Medical Surveillance on employees exposed to EDC. I have made some major and some minor alterations and I am enclosing a copy for you all to bat around further.

enclosure

cc: Z. Bell
M. Davis
F. Dehn
F. Ludden

Sug
Bun
Bili
LDH
alk
OT
Ca
Phos
T.P. (Albumin)?
Creatinin
CPK?
Uric Acid



SL 073033

(EDC Medical Guidelines)

K. Medical Surveillance

1. General - Any employee assigned work in an area where a potential exposure to ethylene dichloride may occur shall be placed on a medical surveillance program. The program shall provide each such employee with an opportunity for examinations and tests in accordance with this paragraph. All medical examinations and procedures shall be performed by or under the supervision of a licensed physician. At the time of initial assignment, or upon institution of medical surveillances, the following procedures shall be accomplished.

2. Medical History

a. A medical history shall be taken, including the following topics:

- (1) alcohol intake
- (2) past history of hepatitis
- (3) work history and past exposure to potential hepatotoxic agents including drugs and chemicals
- (4) past history of blood transfusions
- (5) past history of hospitalization
- (6) signs and symptoms associated with acute exposure to EDC, include: lassitude, and malaise, nausea, dizziness, burning sensation of the eyes and lacrimation, anorexia and a metallic taste in the mouth; chronic: cardiac, hepatic, neurological and pulmonary effects have been found

3. Physical Examinations - A general physical examination shall be performed with specific attention to heart, lungs, liver, spleen and kidneys, or dysfunction in these organs. Attention shall also be given to detecting abnormalities in skin, connective tissues, and nervous systems.

4. Special tests

a. Serum specimens

- (1) total bilirubin
- (2) alkaline phosphatase
- (3) serum glutamic oxalacetic transaminase (SGOT)
- (4) serum glutamic pyruvic transaminase (SGPT)
- (5) gamma glutamyl transpeptidase (GGTP)
- (6) BUN

b. Respiratory system evaluation

- (1) pulmonary function testing shall be conducted and as a minimum, a determination made of:
 - (a) forced vital capacity
 - (b) forced expiratory volume (one second)
- (2) a chest roentgenogram (posterior-anterior, 14 X 17 inches), shall be made

c. Cardiac evaluation - electrocardiogram shall be made

d. Evaluation of kidney function - tests shall be made for kidney dysfunction, and as a minimum, include urine examination for albumin, glucose, cells and casts

5. Frequency of examinations

- a. Examinations provided in accordance with paragraph K-1 shall be performed at least annually
- b. Each employee exposed to an emergency shall be afforded appropriate medical surveillance

6. Abnormal tests - when required tests under paragraph K-1 of this section show abnormalities, the tests should be repeated as soon as practicable, preferably within three to four weeks. If tests remain abnormal, consideration should be given to withdrawal of the employee from further potential contact and/or exposure with EDC, while a more comprehensive examination is made. Additional testing that may be helpful: (1) additional serum tests - lactic acid dehydrogenase, lactic acid dehydrogenase isoenzyme, protein determination and protein electrophoresis. (2) for a more comprehensive examination on repeated abnormal serum tests - hepatitis B antigen and liver scanning.
7. Employee suitability
 - a. A statement of each employee's suitability for continued exposure to ethylene dichloride including use of respiratory protective equipment shall be obtained from the examining physician.
 - b. If any employee's health, in the opinion of the examining physician, would be materially impaired by continued assignment to an area of potential exposure to ethylene dichloride, such employee shall be removed from possible contact with ethylene dichloride.
 - c. Based on studies that indicated that ethylene dichloride can be transferred to babies via the milk of nursing mothers and in the complete absence of information on the susceptibility of infants to EDC, it is recommended that nursing mothers not work in areas with potential contact and/or exposure to ethylene dichloride.
8. If the examining physician determines that alternative medical examinations to those required by paragraph K-1 of this section will provide at least

equal assurance of detecting health conditions pertinent to the exposure of ethylene dichloride, the employer may accept such alternative examinations as meeting the requirements of paragraph K-1 of this section, if the employer obtains a statement from the examining physician setting forth the alternative examinations and the rational for substitution.