



Air Products and Chemicals

CHEMICALS GROUP

Five Executive Mall, Swedesford Road, Wayne, Pa. 19087

bcc: J. T. Barr
J. C. Novak
J. D. Kram
J. T. Sebastianelli
H. L. Watson
A. J. Diglio
J. F. Healy

RECEIVED

JUN 28 1974

24 June 1974

LAW DEPARTMENT

T. L. Carey
Vice President, Manufacturing

Tel: (215) 687-6150

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Department of Labor
Commonwealth of Kentucky
Frankfort, Kentucky 40601

Gentlemen:

In accordance with Section 4 of OSH Regulation 119, we hereby register with the Department of Labor, Commonwealth of Kentucky the use of vinyl chloride monomer in our plant located on Highway 95, Calvert City, Kentucky. The information required by Section 4 (b) is submitted as follows:

- i) The intended use of vinyl chloride monomer is in storage, transfer and polymerization operations for the manufacture of:
 - A. Polyvinyl chloride (PVC) resin homopolymers and copolymers.
 - B. Emulsion copolymers using vinyl chloride monomer.

The two processes involve:

With respect to PVC:

1. Polymerization of vinyl chloride monomer to homopolymer or with copolymers of propylene or vinyl acetate in a water suspension under controlled temperature and pressure.
2. Recovery of unreacted vinyl chloride and comonomer.
3. Filtration and drying of the resulting product, PVC resin, which contains less than 0.5% vinyl chloride monomer.

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With respect to emulsions:

1. Copolymerization of vinyl chloride with vinyl acetate and ethylene in an emulsion polymerization system under controlled temperature and pressure.
 2. After the completion of the polymerization the resulting emulsion polymer is filtered and pumped to storage. The vinyl chloride content of this product is less than 0.1%.
- ii) Both of these processes are batch operations carried out in closed systems. They are very closely monitored and maintained to minimize exposure to employees. The amount of average exposure to the employees is below 50 ppm 8 hr. TWA of vinyl chloride in their breathing air.
- iii) A. Retained the services of medical consultants to administer and evaluate a series of tests to determine any deficiencies in the employees' liver functions. The series of tests consisted of the following:
- Chest X-rays
 - Hand X-rays (previously done)
 - BUN
 - Uric Acid
 - Phosphorous
 - Calcium
 - Alkaline Phosphatase
 - Total Protein
 - Albumin
 - Bilirubin
 - Cholesterol
 - Carbon Dioxide
 - Chloride
 - SGOT
 - LDH
 - CSC with Platelets if necessary
 - SGPT

We will adopt in the future any additional recommended tests that will define the effects of vinyl chloride on the employees' health and these will be administered to the employees as a routine medical control.

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B. The industrial hygiene control measures include the following:

1. Sequential area monitoring to give a recorded profile of vinyl chloride concentration in the general work area, with an alarm for any excursions.
2. Personnel monitoring program on a rotating basis for all employees to monitor their exposure.
3. Thorough ventilation is provided throughout the process area, backed up by automatically controlled emergency ventilation in the event of an unexpected excursion.
4. Lunch area is provided separate from the process area and no food or drink is allowed in the working area.
5. Shower and locker facilities are available to the employees.
6. Employees are provided with both air-line respirators and self-contained breathing apparatus for emergency use.
7. Employees have been trained in the proper operation of the process, and in possible hazardous effects of exposure to vinyl chloride monomer.
8. Emergency procedures are established and the employees are trained in their use.

We at Air Products and Chemicals have a meaningful and effective program to protect our employees. This program is a dynamic effort, continually seeking ways for improvements

We trust that this information meets your requirements, and we shall be glad to furnish any further information that you may require.

Very truly yours,



T. L. Carey

TLC/izr

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