

A

TO: Distribution

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FROM: T. G. Grumbles
DATE: August 24, 1989

Interoffice
Communication

SUBJ: NIOSH INVESTIGATION AT THE LCVCH PLANT

VISTA

Attached are the employee letter regarding the subject and the NIOSH request sent today. We'll keep you informed on progress.

T. G. Grumbles

dlj
.739

Attachment

Distribution: T. H. Huffman, J. A. DeBernardi, R. D. Gamblin, M.
S. Reynolds, W. L. McClain-Houston
J. Friend-LCCP, J. Ware-LCLAB, R. W. Seymour-Aber,
H. D. Garrison-Okc



VEV508445-1

Vista Chemical Company

900 Threadneedle
Houston, Texas 77079
(713) 588-3000

P.O. Box 19029
Houston, Texas 77224
Fax (713) 588-3236

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

August 24, 1989

VISTA

Hazard Evaluations and Technical
Assistance Branch
Division of Surveillance, Hazard
Evaluations and Field Studies
NIOSH
4676 Columbia Parkway
Cincinnati, Ohio 45226

Dear Sirs:

Vista Chemical is requesting a NIOSH Health Hazard Evaluation at its Vinyl Chloride Monomer production facility in Westlake, Louisiana. This request is being made to investigate the incidence of cancer and particularly brain tumors at this manufacturing location. A plant profile is attached that describes the plant operation and provides details about the plant size and history.

The evaluation is being requested as a result of recent events in the current employee population. Two employees have recently been diagnosed as having cancerous brain tumors. According to the information available to us, one employee's tumor was a Glioblastoma Multiforme (astrocytoma) and one was an Adenocarcinoma (metastatic). Both employees have been employed at the plant for more than 15 years. Based on the facts available to us at this time, it appears the two tumors are of a different type and not related in any way. However, the occurrence of two brain tumors in a short time has raised employee concerns regarding the relationship between chemical exposures and brain tumors at the plant. For this reason, we believe an independent assessment of the situation would be beneficial.

Please contact the undersigned at 713-588-3445 if you have any questions concerning this matter and to provide information concerning the next step to be taken by NIOSH.

Sincerely,



Thomas G. Grumbles, C.I.H.
Environmental Quality Manager

dlj

Enclosures



VEV508445-2

Lake Charles VCM Plant

Vista Chemical Company
Box 605
VCM Plant Road
Westlake, Louisiana 70669

Telephones

VCM Plant Office 318/494-5030 (7 a.m. - 3:30 p.m. Monday - Friday)

VCM Control Room 318/494-5070 (Day or Night)

Employees

Approximately 120 employees.

Major Materials Produced

Vinyl chloride monomer (VCM)
Ethylene dichloride (EDC)

Process Capacity

700 million pounds per year.

Product Facts

VCM is produced from ethylene fed to the plant from Vista Chemical's ethylene unit (part of the Lake Charles Chemical Plant), located in the same chemical complex. Vista's VCM is utilized in the production of Vista Polymers' PVC resins, compounds and dryblends and is also sold into the merchant market. When VCM is processed into PVC, the resulting resin can be manufactured into such products as siding, pipe, furniture, apparel and packaging.

VCM is a colorless gas at atmospheric pressure and is the basic raw material for making polyvinyl chloride (PVC) plastic resin.

Ethylene dichloride (EDC), the other basic ingredient for the manufacture of VCM, is produced on site as part of the VCM manufacturing process. After it is made, it is held in tanks until needed. EDC, a colorless, oily liquid, is not routinely shipped outside the plant.

VCM from this facility is transported to Vista's PVC plants in Aberdeen, Mississippi, and Oklahoma City, Oklahoma, and is also sold to other companies.

Facility Description

The Lake Charles VCM Plant is located adjacent to the Lake Charles Chemical Plant on an 80-acre tract, of which 25 acres are utilized. It contains rail and trucking facilities, with access to water transport facilities.

Facility History

- 1967 - Constructed from a Stauffer Chemical Company design.
- 1968 - Brought on-stream. The plant was the largest single-train VCM plant in the world.
- 1981 - The plant completed a major modernization project in 1983. VEV-508447
- 1984 - Vista Chemical assumes operations of the plant after the company purchased assets of Conoco Chemicals



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Lake Charles VCM Plant
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Incoming Supplies (Feedstocks, Raw Materials)

- Chlorine** Transported to the plant in gaseous form by pipeline from the nearby PPG Industries Plant and limited quantities in liquid form by tank car from other chlorine manufacturers in the southeast. Only on-site storage of feedstock is for liquid chlorine. High concentrations of chlorine gas cause severe damage to the respiratory tract. With long exposure, death may result. Gas or liquid contact can burn skin and permanently damage eye tissue.
- Ethylene** Transferred to the plant via pipeline from LCCP. Ethylene is a flammable gas which has an anesthetic effect on humans.
- HCl Gas
(Hydrogen
Chloride
Anhydrous)** Transferred to the plant as gas by pipeline. It is a colorless, nonflammable gas. Eyes and respiratory tract are susceptible to irritation if inhaled. Tissue damage may occur with exposure to high concentrations.

Handling of Outgoing Materials

- Vinyl Chloride
Monomer (VCM)** The major product from this facility is VCM, totaling 700 million pounds capacity per year. On-site tank farm capacity is 27 million pounds maximum. VCM is shipped from the plant by railcar, ship and pipeline. VCM is a colorless gas and a liquid under pressure. Vapors can form flammable mixtures in air. Burning VCM generates hydrogen chloride gas. VCM is a recognized human carcinogen. High levels of exposure over long periods of time can cause cancer in humans.
- Ethylene
Dichloride (EDC)** EDC is used on site and is not routinely shipped outside the plant. EDC is a clear liquid with a sweet, chloroform-like odor. EDC vapors can form flammable mixtures in air. Burning EDC generates hydrogen chloride gas. EDC is classified as a suspected carcinogen. High levels of exposure over long periods of time can cause adverse effects on the liver and kidneys.

Regulated Waste Substances as a Result of Manufacturing Operations

- Heavy
Ends** Generated from the VCM process and is sent off-site to PPG Industries for recycling.
- Light
Ends** Generated from the VCM process and is normally sold in the market as a product.
- Muriatic
Acid** Generated from the VCM process and is either sold as product or neutralized in tanks to be rendered non-hazardous.

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