

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.
- 1984 - Vista Chemical assumes operations of the plant after the company purchased assets of Conoco Chemicals.

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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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Environmental Investigations Branch,
Division of Respiratory Disease Studies,
NIOSH, 944 Chestnut Ridge Road,
 Morgantown, WV 26505.

(b) Requests for health hazard evaluations shall be submitted in writing and signed by either: (1) The employer in whose place of employment the substance or physical agent is normally found, or (2) an authorized representative of employees (see § 85.3-1(e)) in the place of employment where the substance or physical agent is normally found.

[46 FR 2653, Jan. 14, 1980]

§ 85.3-1 Contents of a request for health hazard evaluation.

Each request for health hazard evaluation shall contain:

(a) The requester's name, address, and telephone number, if any.

(b) The name and address of the place of employment where the substance or physical agent is normally found.

(c) The specific process or type of work which is the source of the substance or physical agent, or in which the substance or physical agent is used.

(d) Details of the conditions or circumstances which prompted the request.

(e) A statement, if the requester is not the employer, that the requester

(1) An authorized representative or an officer of the organization representing the employees for purposes of collective bargaining; or

(2) An employee of the employer and is authorized by two or more employees employed in the same place of employment to represent them for purposes of these Acts (each such authorization shall be in writing and a copy submitted with the request for health hazard evaluation); or

(3) One of three or less employees employed in the place of employment where the substance or physical agent is normally found.

(f) A statement indicating whether or not the name(s) of the requester or those persons who have authorized the requester to represent them may be revealed to the employer by NIOSH.

(g) The following supplementary information if known to the requester:

(1) Identity of each substance or physical agent involved;

(2) The trade name, chemical name, and manufacturer of each substance involved;

(3) Whether the substance or its container or the source of the physical agent has a warning label; and

(4) The physical form of the substance or physical agent, number of

people exposed, length of exposure (hours per day), and occupations of exposed employees.

NOTE: NIOSH has developed two forms entitled "Request for Health Hazard Evaluation" and "Request for Mining Health Hazard Evaluation" to assist persons in requesting evaluations. The forms are available upon request from the offices listed in § 85.3(a) (1) and (2) or from the Regional Consultant for Occupational Safety and Health in any Regional Office of the Department of Health and Human Services.

[45 FR 2653, Jan. 14, 1980]

§ 85.4 Acting on requests.

(a) Upon receipt of a request for health hazard evaluation submitted under this part, NIOSH will determine whether or not there is reasonable cause to justify conducting an investigation.

(b) If NIOSH determines that an investigation is justified, a NIOSH officer will inspect the place of employment, collect samples where appropriate, and perform tests necessary to the conduct of a health hazard evaluation, including medical examinations of employees.

(c) If NIOSH determines that an investigation is not justified, the requester will be notified in writing of the decision.

[45 FR 2653, Jan. 14, 1980]

§ 85.5 Authority for investigations.

(a) NIOSH officers who have been issued official NIOSH credentials (Form No. CDC/NIOSH 2.93) are authorized by the Director, NIOSH, under sections 20(a) (8) and 8 of the OSH Act and sections 501(a)(11) and 103 of the FMSH Act: To enter without delay any place of employment for the purpose of conducting investigations of all pertinent processes, conditions, structures, machines, apparatus, devices, equipment, records, and materials within the place of employment; and to conduct medical examinations, anthropometric measurements, and functional tests of employees within the place of employment as may be directly related to the specific health hazard evaluation being conducted. Investigations will be conducted in a reasonable manner, during regular working hours or at other reasonable times and within reasonable limits. In connection with any investigation, the NIOSH officers may question privately any employer, owner, operator, agent, or employee from the place of employment; and review, abstract, and duplicate records required by the Acts and regulations and any other related records.

(b) Areas under investigation which contain information classified by any

agency of the United States Government in the interest of national security will be investigated only by NIOSH officers who have obtained the proper security clearance and authorization.

[46 FR 2653, Jan. 14, 1980]

§ 85.6 Advance notice of visits.

(a) Advance notice of visits to the place of employment may be given to expedite a thorough and effective investigation. Advance notice will not be given when, in the judgment of the NIOSH officer, giving such notice would adversely affect the validity and effectiveness of the investigation.

(b) Where a request in accordance with this part has been made by an authorized representative of employees, advance notice in accordance with paragraph (a) of this section will be given by NIOSH to the requester, the representative of the employees for purposes of collective bargaining if such representative is other than the requester, and to the employer.

(c) Where a request in accordance with this part has been made by any employer, advance notice will be given by NIOSH to the employer. Upon the request of the employer, NIOSH will inform the authorized representative of employees of the visit. Provided, The employer furnishes NIOSH in writing with the identity of such representative and with such information as is necessary to enable NIOSH promptly to inform such representative of the visit.

§ 85.7 Conduct of investigations.

(a) Prior to beginning an investigation, NIOSH officers shall present their credentials to the owner, operator, or agent in charge at the place of employment, explain the nature, purpose, and scope of the investigation and the records specified in § 85.5 which they wish to review. Where the investigation is the result of a request submitted by an authorized representative of employees, a copy of the request shall be provided to the employer, except where the requester or any person authorizing the requester pursuant to § 85.3-1(e)(2) has indicated that NIOSH not reveal his name to the employer, in which case a summary of the basis for the request shall be provided to the employer.

(b) At the commencement of an investigation, the employer should precisely identify information which can be obtained in the workplace or workplaces to be inspected as trade secrets. If the NIOSH officer has no clear reason to question such identification, such information shall not be disclosed except in accordance with the provisions of section 20(a)(6) and sec-