



ETHYL CORPORATION
PETROLEUM CHEMICALS GROUP
BATON ROUGE PLANT

Mr. L. V. Guilbeau
Mr. J. L. Griffin
Mr. D. E. Park
Mr. J. D. Spearman

December 29, 1981

PLEASE ADDRESS REPLY
TO BOX 341
BATON ROUGE, LA. 70821

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William Hathaway, Acting Director
Enforcement Division (6AE)
EPA, Region 6
First International Building
1201 Elm Street
Dallas, Texas 75270

Attention: Martin E. Brittain

Dear Mr. Hathaway:

Re: Emergency Relief Valve Discharge Report

Attached is the report required under section 61.65 (a) of the National Emission Standards for Hazardous Air Pollutants, Standard for Vinyl Chloride concerning an emergency relief valve discharge at Ethyl Corporation's Baton Rouge VCM Plant on December 20, 1981.

Very truly yours,

M. M. Koenecke
Plant Manager

MMK/ccm/bma
Attachment

VC2472

REPORT OF VCM DISCHARGE FROM EMERGENCY RELIEF VALVE

1. Date and Time: December 20, 1981, at 5:45 a.m.
2. Location of VCM Discharge: The back-pressure control valve on the D-24 liquid knockout drum in Ethyl Corporation's VCM Plant in Baton Rouge, Louisiana.
3. Cause of Venting: A vinyl chloride rail car was overfilled during loading when the level device that normally cuts off vinyl chloride flow to the car on high level failed to function. This caused the excess vinyl chloride to be sent to two EDC cracking furnaces which serve as VCM vent gas control devices for the VCM Plant. The cracking furnaces accepted the maximum amount of VCM possible at which time a back-pressure control valve on the vent gas knockout drum ahead of the furnaces opened to relieve part of the excess vent gas flow to a flare to avoid overheating the furnaces and subsequent total shutdown of the cracking furnaces.
4. Approximate Weight of VCM Vented:
 - a. During a telephone conversation in July, 1978, between Mr. N. E. Garland of Ethyl and Mr. Martin Brittain, of EPA Region VI headquarters, Mr. Brittain said that the EPA presumes that a flare is 90% efficient in destroying the VCM content of vent gas burned in the flare. On this basis, the amount of VCM released to the atmosphere during this release was 10.3 pounds.
 - b. Recent data published by K. D. Siegel of the University of Karlsruhe in West Germany indicates that a flare is at least 99% efficient in destroying the VCM content of vent gas burned in the flare. On this basis, the amount of VCM released to the atmosphere during this release was 1.03 pounds.
 - c. Based on flare test data obtained by Ethyl Corporation in 1977, we believe that a flare reduces the VCM content of vent gas burned in the flare to less than 10 ppm. On this basis, there was less than 10 ppm VCM in the gas vented to the atmosphere during this release.
5. Basis for Determining the Vent Loss: It was estimated that approximately seventy feet of 3-inch piping was filled with liquid VCM and that approximately one-half of this was burned in the cracking furnaces with the other half going to the flare. A calculation was made to determine the total quantity of VCM in the pipeline. One-half of this was taken as the quantity vented to the flare and the alternate values released to the atmosphere as indicated above were calculated by taking 10%, 1%, and almost 0% of this quantity.

6. Action or Precautions Taken to Prevent the Vent Loss:

As soon as the operator discovered that the VCM rail car was overfilled, he immediately closed the block valve in the vent line from the car to the cracking furnaces.

7. Preventative Measures Initiated to Help Prevent Future Vent Losses:

The level device that failed will be modified to prevent a recurrence of this type failure.