PPG INDUSTRIES, INC. INDUSTRIAL CHEMICAL DIVISION P. O. BOX 1000 LAKE CHARLES, LA. 70602

May 1, 1984

Mr. Gus Von Bodungen
Department of Environmental Quality
Air Quality Division
P. O. Box 44066, Capitol Station
Baton Rouge, LA 70804

RE: VCM - SRV Discharge of 4/27/84

Dear Mr. Von Bodungen:

In accordance with the provisions of Section 76.18 of the LESHAP vinyl chloride regulations, enclosed is a report of the emergency safety relief valve discharge which occurred at our facility on April 27, 1984.

Respectfully,

Kenneth S. Komoroski

KSK/bh

Attachment

cc: Joe Withers

bcc: R. P. Byars/J. A. Hart
W. Graybill/R. J. Samelson
D. Cannon
B. D. Reynolds/J. E. Fike
File #104.3.04

File VCM/SRV

RECEIVED
MAY 04 1984
W. B GRAYBILL

SL 105208

SRV RELEASE REPORT

1. Date of Incident 4/27/84

2. Time of Incident (start/finish) 10:12 a.m./10:15 a.m.

3. SRV No. 46-2463 Location No. 91-699

4. Estimated Concentration of VCM (weight or ~~volume~~) 99.99 in the equipment

5. Quantity of VCM discharged (lbs) 4.3

6. Method of Calculation See Attachment 1

7. Give a detailed description of the cause of the discharge

See Next Page

8. Give a detailed description of all relevant corrective steps taken before and during each discharge.

Upon learning of the release, operations personnel immediately shut down the product transfer. The trip system was reset again and the isolation valves opened automatically. Product transfer was resumed with no further problems occurring.

SL 105209

7. Give a detailed description of the cause of the discharge:

The SRV relieved due to hydraulic shock created by starting a transfer of VCM from VCM-11 to the storage spheres with the automatic sphere isolation valve (located on the transfer line at the spheres) in the closed position. Startup of the pump against the closed valve caused a momentary pressure surge which lifted the SRV.

The purpose of the automatic sphere isolation valves is to prevent backup of VCM from the spheres into the transfer line during an emergency. These valves are normally open and remain in the open position until such time as the emergency trip system activates and automatically closes them (a fail close design). Prior to the product transfer under discussion, the emergency trip system had been manually activated for operator training purposes (caused sphere isolation valves to close) and then reset (should have caused sph re isolation valves to reopen). The reset operation causes a number of things to automatically occur and some of these were visible to the operator causing him to believe that the entire system had reset. However, for some reason, the sphere isolation valves had not reopened.

9. Describe any deviations from SOP and explain why. None

10. Describe external conditions (if any), such as weather, utility upset, etc. that affected this release or the attention of the employee during this release.

NA

11. If the incident was due to employee error, answer the following:

A. Name and badge number of employee NA #

B. Hours worked on the day of the incident NA

C. Hours worked seven (7) previous days NA

D. Briefly identify employee's duties: NA

E. Describe employee's training records NA

F. Provide a copy of all the employee's personnel records and disciplinary actions. NA

12. If the incident was due to premature failure of a RD and/or SRV, NA

A. Describe RD material NA

B. Describe manufacture of RD NA

C. State length of time RD in service NA

D. State rated burst pressure and % allowance NA NA %

E. State pressure during discharge NA

F. What was the cause of the RD failure? NA

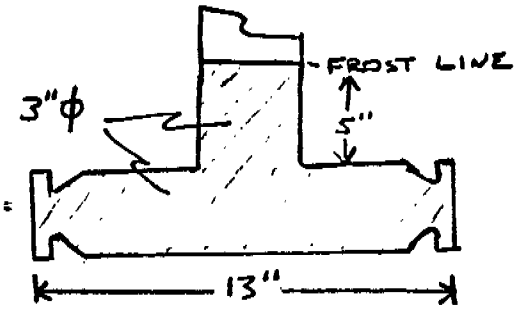
G. What was the cause of the SRV failure? NA

H. Provide a copy of the last two SRV test reports. NA

13. State what actions will or have been taken to prevent this type of release from occurring again. Also note when these corrective actions will be completed.

The trip/reset system is being checked for proper operation and repaired as necessary.

A method has been discovered which will allow the operations personnel to detect if the valve has failed to respond to the reset of the system. This method has been implemented as SOP for the unit.



$\# = A L \rho n_{vc}$

A = Cross sectional area
L = Length
ρ = Density @ 80°F
n_{vc} = weight fraction vcm

$\# = (0.051\ ft^2)(18\ in)(ft/12\ in)(7.49\ \#/gal)(7.48\ gal/ft^3)(0.9999)$

$\# = 4.3$ lbs vcm