

INTEROFFICE MEMORANDUM

Date: 21-Dec-1995 08:55am EDT
From: DIRIENZOJ
DIRIENZOJ@PED26@MRGATE@CLE
Dept:
Tel No:

TO: SUHAY, JAN@A1

Subject: NARRATIVE FOR VCM RELEASE AT PTOWN 12/15/95

From: PED26::STOLFOC 21-DEC-1995 07:48:18.81
To: DIRIENZOJ
CC: STOLFOC
Subj: FOR YOUR INFO

From: PED26::KNUTSEND "CIL KNUTSEN" 20-DEC-1995 16:03:59.86
To: STOLFOC
CC: KNUTSEND
Subj: Narrative

Incident of Experience Value
VCM Release
The Geon Company
Pedricktown Plant

Summary and Cause

On December 15 1995, at 12:00 pm, a gasket failed on a 1" hydrostatic relief line at the recovered monomer charge pumps in the Suspension resin area. Approximately 39 pounds of VCM was released over a 10 minute period. The local LEL monitoring system activated the deluge system, which in turn sounded the fire alarm. A gas alarm was pulled by the area personnel.

Water had accumulated in this line during a major shutdown the week before. During the shutdown, the weather turned cold and dropped below freezing; the water froze in the line and the expansion caused bolts holding a check valve in place to stretch. When the ambient temperature climbed above freezing, the ice plug melted and the VCL pressure caused the gasket to fail.

The leak was isolated and there were no injuries or personnel exposures. The Fire Brigade responded to the incident swiftly and properly. Emergency Response communications with all appropriate external agencies and company personnel was conducted as required. The All Clear was sounded at 12:40 pm and the cleanup activities were completed by 18:00 pm.

Board of Review:

REDACTED

NGC 13597

A board of review was held on Friday, December 15 1995, with the following in attendance:

Carl Stolfo	Manufacturing Manager
Norman Ayars	Lead Technician
Arthur McMillian	Acting Plant Manager
Jim DiRienzo	Process Engineer

A follow up board of review was on Monday, December 18 1995, with the following in attendance:

Cil Knutsen	Plant Manager
Carl Stolfo	Manufacturing Manager
Jim Kiel	Enviromental Manager
Greg Kaswell	Safety Engineer
Jim DiRienzo	Process Engineer

Corrective Action:

We currently have generic procedures and guidelines for non-routine equipment recovery. The Corrective Action is to include a section which emphasizes the need to drain any condensed water from piping and equipment in order to prevent freezing or corrosion.

Narrative:

On December 15, 1995, at 12:00 noon, a 25% LEL alarm sounded in the suspension resin control room. _____ was the console operator at the time. Jim DiRienzo was in the control room and along with Dan Oliver, started toward the recovery structure to investigate. Before DiRienzo and Oliver could reach the area, a 50% LEL alarm sounded and initiated the deluge system which turned in the fire alarm. The fire alarm alerted Norm Ayars, the suspension lead tech, Dave Doran, the outside tech, and Bill Risley, the pigment tech. DiRienzo returned to the control room and had _____ pull the gas alarm at 12:03. The gas chromatograph was picking up VCL throughout the large poly area.

Ayars, Risley, DiRienzo, and Oliver put on personnel protection equipment and attempted to locate the leak. The water curtain from the deluge system prevented them from locating it visually. Dave Doran located the key to the deluge shut off valve and turned off the deluge. The leak was quickly spotted and isolated by closing manual valves on both sides of the leak. These valves were within 3 feet of each other and immediately stopped the leak when they were closed at 12:10 by Risley and Doran.

The large poly area personnel barricaded the area and waited until all ambient VCL levels throughout the area returned to below 1 ppm before asking for an ALL CLEAR signal to be sounded. This occurred at 12:40.

Facts Surrounding the Incident:

- o There were no ambient VCL reading above 1 ppm at the recovery structure before the 25% LEL.
- o At the time of the leak, charging was not in progress and the pressure in the line was 25 psig.
- o The flange leak was in RVCM liquid hydrostatic relief piping.
- o The RVCM header was steam swept and recovered on Dec. 4th during a week long area shutdown.
- o The RVCM header was refilled with VCL on Dec. 8th.
- o Four pages of detailed instructions were issued for the recovery and recommissioning of the RVCM charge header. All of these instructions were followed. These instructions did not specify condensate draining.
- o The outside temperature was below freezing from start-up on Dec. 9th to the morning of Dec. 15th.
- o The weather conditions at the time of the incident were sunny, no wind, and temp of 40 deg.

Management Systems Investigation:

All safety systems operated as designed. The LEL, deluge, fire alarm, and gas alarm functioned normally.

The personnel responding to the incident used proper personnel protection equipment.

All fire brigade interaction and communications to the State Agencies were made as required.

All contractors went to the gas alarm staging area as required.

Internal communications were hampered due to the use of respiratory protection equipment by area personnel.

The all clear signal was given after the leak was stopped, all ambient VCL levels in the large poly area were below 1ppm, and the recovery structure area had been barricaded.

All deluge water was processed by waste water treatment as required.

This incident has been categorized as a fugitive emission and will not cause us to exceed our annual permit limitation of 9048 lbs.

Shift personnel were given and followed detailed instructions for the nonroutine tasks of charge system recovery and recommissioning.

NGC 13599

Conclusion:

The section of piping where the leak occurred, filled with condensation from the steam sweeping process during the prior week shutdown. The line froze on Dec. 9th and remained frozen until Dec. 15th. The expanding ice stretched the bolts that held a check valve in place. When the ice melted, VCL pressure caused the gasket to fail on the check valve resulting in a VCL release.

NGC 13600