



DLM

Conoco Chemicals Company  
Conoco Inc.  
P.O. Box 91, New Highway 25  
Aberdeen, MS 39730

January 14, 1982

**CONFIDENTIAL**

Mr. Charles R. Jeter  
Regional Administrator  
Region IV  
United States Environmental Protection Agency  
345 Courtland St., N.E.  
Atlanta, GA 30308

Dear Mr. Jeter:

At approximately 4:30 p.m. on January 11, 1982 our plant experienced a minor relief valve discharge. Pursuant to the National Emission Standard for Vinyl Chloride (40 CFR, Part 61, Subpart F, paragraph 61.65a) we are reporting this incident to your office. This release has been reported to the National Response Center under the Comprehensive Environmental Resonse, Compensation and Liability Act of 1980.

The vessel involved was the east recovered monomer condenser in reactor module No. 2. The vessel relieved through a 1" x 1½" relief valve which has a 2" diameter rupture disk between it and the condenser. The relief valve setting was 150 psig and the rupture disk was rated at 150 psig at 150°F.

Prior to the release an unusually cold front moved through the area resulting in some freeze problems in the plant. At the time of the release operators were in the process of thawing out the recovery system. Steam was being used to warm up the condenser. As this procedure was being done the relief valve on the condenser discharged for about three seconds and then reseated. The outlet valve on the condenser was open at the time of the release but the inlet valve to the condenser was closed. Apparently the outlet line was plugged due to freezing and as the condenser heated up the vessel overpressured and the relief valve momentarily discharged. Heating of the condenser was stopped immediately to assure the condenser would not be overpressured again. The manual valve between the condenser and the relief valve was also closed. The inlet valve to the condenser was then opened and the recovery system was thawed out without further incident.

The amount of VCM discharged to the atmosphere from the relief valve was estimated to be 3.7 pounds using a calculational procedure provided by the relief valve manufacturer, Teledyne Farris. A copy of the discharge calculation is attached. The relief valve discharge stack is 48 feet above grade and no personnel were overexposed to vinyl chloride.

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The weather conditions at the time of the release according to the plant weather station were as follows:

|                     |   |                         |
|---------------------|---|-------------------------|
| Barometric Pressure | - | 30.24 inches of mercury |
| Temperature         | - | 19°F                    |
| Wind Direction      | - | WNW                     |
| Wind Speed          | - | Trace                   |

To minimize the likelihood of future discharges of this type, operators will be instructed to have both inlet and outlet valves open on vessels in vinyl chloride service prior to applying external heat to them.

The reporting requirements of the Standard pertaining to relief valve discharges are summarized below for this release:

Source: East Recovered Monomer Condenser, Reactor Module No. 2  
Nature: Discharge through relief system on the east recovered monomer condenser, reactor module no. 2  
Cause: Overpressure of the condenser caused by steaming the condenser to thaw it out. The inlet valve was closed and a plug due to freezing apparently existed in the outlet line.

Date: January 11, 1982

Time: 4:30 p.m.

Approximate

Discharge: 3.7 pounds VCM

Method of  
Determining

Discharge: Relief valve discharge calculation

Action

Taken To

Prevent

Release: 1. Steam heating of the condenser was stopped immediately;  
2. The manual valve between the condenser and the relief valve was closed.

Measure Taken

To Prevent

Future

Discharges: Operators instructed to have both inlet and outlet valves open on vessels in VCM service if unusual circumstances in the future should require external heating or steaming.

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