

File: Aberdeen RMR

CONOCO

Conoco Chemicals Company
Conoco Inc.
P. O. Box 91, New Highway 25
Aberdeen, Mississippi 39730
(601) 369-8111

September 2, 1983

CONFIDENTIAL

Mr. Jerry B. Banks, P. E.
Mississippi Department of
Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Banks:

This letter is to inform you of an incident which occurred at our Plant on August 27, 1983 in which vinyl chloride was discharged from a relief valve in the plant's chem wash system. We do not believe that this release is regulated under the National Emission Standard for Vinyl Chloride (40 CFR, Part 62, Subpart G, paragraph 61.55 (a)). The release occurred as the vinyl chloride left the reactor system and entered the chem wash system. The fact that vinyl chloride was subsequently discharged through a relief valve is entirely coincidental to the event.

At 2:15 p.m. 744 reactor was evacuated and prepared for charge according to standard procedures. Shortly after the charge was started, the new module deluge system was activated. The Shift Supervisor immediately went to the new reactor module and observed that VCM vapors were coming out of the sewer in the vicinity of the chem wash tank. He put on an air respirator and determined that VCM was discharging to the sewer from a relief valve on the chem wash return line. He closed a manual valve in the line and the discharge stopped.

Shortly after the discharge stopped, plant personnel attempted to discover the cause of the discharge. It was found that the chem wash return valve on 744 reactor was partially open due to a mechanical malfunction of the valve. The bolts that hold the actuator assembly to the valve had come loose, and the actuator assembly had twisted on the valve. Since the limit switches that sense the position of the valve are located on the actuator, the control panel indicated that the valve was closed and the process controller permitted the charge. The valve apparently malfunctioned and remained partially open when the chem wash was completed on the previous batch. With the valve open, vinyl chloride escaped from the reactor system to the chem wash system and the chem wash return line became pressured. The set pressure on the relief valve that protects the chem wash return strainer was exceeded and the contents of the line were released through the relief valve discharge piping which is directed into the plant waste water sewer system.

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The estimated amount of vinyl chloride discharged is approximately 2,592 pounds. This quantity is estimated by taking the difference between the amount charged minus the amount of VCM left in the reactor and the chem wash header. Attached are the calculations used to estimate the amount of the discharge. The discharge was reported to the National Response Center on August 27 under the Comprehensive Environmental Response And Liability Act of 1980.

In order to prevent a similar discharge from occurring again in the future, an automatic valve will be installed in the chem wash return line upstream from the chem wash strainer. In the event that a reactor chem wash return valve malfunctions in the open position, the valve upstream from the chem wash strainer will prevent VCM from being discharged into the chem wash system.

If you have any questions concerning this event, please contact me at (601) 369-8111, extension 2285.

Sincerely,

Dave Mahler
Environmental Engineer

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Attachments

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