



B. F. Goodrich Chemical Company

A DIVISION OF THE B. F. GOODRICH COMPANY

P. O. BOX 954

BELLS LANE

LOUISVILLE, KENTUCKY 40201

June 25, 1975

Mr. Bob Lindon
Director, Division of Compliance
For Occupational, Safety and Health
Capital Plaza
Office Tower Building
Frankfort, Kentucky 40601

Dear Mr. Lindon:

This will confirm our telephone notification on the morning of June 19, 1975 that the B.F. Goodrich Chemical Company, Louisville, Kentucky Plant experienced an unusual vinyl chloride release to the atmosphere. This notification was made in accordance with the requirement of regulation 1910.93q (n) (2).

At approximately 6:00 p.m. Thursday, June 19, a 13,800 volt cable between two transformers went to ground. The loss of power supplied by these transformers shut down roughly half the plant including Building 111, a PVC resin manufacturing unit; Building 108, the process cooling water supply unit; and Building 103, the Boiler House. The vinyl chloride release was from Building 111 in which 34 PVC resin charges were reacting. As soon as the power went off, the flow of reactor cooling water from Building 108 to the reactors in Building 111 shut off. In a few minutes numerous reactors began to overheat seriously and build up excessive vinyl chloride vapor pressure. All available blowdown tank space was used to reduce reactor pressure, but despite this twenty polymerizers reached pressures high enough to blow the rupture disc and partially relieve through the relief valves to the atmosphere. In addition one reactor developed a leak at the manhead gasket under the high pressure and vented some monomer into the building. Since the building ventilation fans were off because of the power outage, all personnel promptly evacuated the building.

At 7:05 p.m. partial power was restored. A production foreman, a chemical operator, and a Total Hydrocarbon Vapor Analyzer technician put on Scott Air-Paks and went to the electrical pent-house on the roof of Building 111 where, after determining the vinyl chloride concentration was below the lower explosive limit, they started the building ventilation and exhaust fans.

NGC36177

Mr. Bob Lindon
June 25, 1975

Page 2

A hood was then placed over the leaking manhead on No. 17 poly and connected to the vent system. With this leak source stopped the vinyl chloride concentrations on all three floors of Building 111 dropped to normal in about thirty minutes.

It is estimated that 5,000 pounds of vinyl chloride monomer was vented to the atmosphere. This estimate is based on the various stages of conversion of monomer to polymer in the reactors which partially vented, the quantity of slurry equalized to empty blowdown tanks prior to venting, and the pressures on the reactors after power was restored and the agitators restarted. Twelve men were working in the building, but they promptly evacuated at the first sign of monomer leakage into the building to an area of no exposure. No one was permitted to return to the building until the vapor concentration was below 5 ppm. One operator in this area was wearing a personnel monitor sample pump on this shift as part of the routine monitoring program. The results of his sample tube showed an exposure of 2.2 ppm.

Corrective steps are being taken to reduce the effects of a similar power failure since there is no known method of completely assuring power availability 100% of the time. The cooling water pumps are fitted with auxiliary steam turbine drives which can be engaged manually to furnish cooling water during an electrical power outage.

The boiler which was operating at the time of the incident is oil fired and depends on electric power for the oil feed pump, controls, and main draft fan. When the power failed this boiler went down immediately, shutting off the steam supply. A Diesel driven auxiliary generator unit had been ordered to supply power to this boiler in situations such as this and was in the process of being installed. It is estimated that this work will be completed by July 15, 1975. When this emergency power source is available, the effects of power outages such as this will be minimized.

If any additional information is needed, please contact me.

Very truly yours,

C.C. Talbott

C.C. Talbott
CSHA Coordinator

nb

bcc: ✓ R.L. Toole	- Cleveland	D.E. Giffin	- Henry
H. Waltemate	- Cleveland	M. Lukity	- Brecksville
J.A. Klupar	- Cleveland	W. O'Brien	- Calvert City
L.A. Bennett	- ALTC	D.P. O'Keefe	- Padricktown
L.S. Wallis	- ALCC		

NGC36178