



# GTR CHEMICAL COMPANY

P.O. BOX 68

ASHTABULA, OHIO 44004

PHONE: (216) 998-1120

June 18, 1979

Mr. Eric Cohen  
Chief, Air Compliance Section  
Region V, U.S. EPA  
230 South Dearborn St.  
Chicago, Illinois 60604

Dear Mr. Cohen:

The General Tire & Rubber Company, in compliance with the National Emission Standard for Vinyl Chloride, Section 61.65, is reporting an emergency relief valve discharge.

On June 17, 1979 at 6:50 a.m., the rupture disc blew and the relief valve opened on Reactor 318. The calculated maximum loss of vinyl chloride to the atmosphere was 570 pounds. This loss was calculated by measuring the amount of vinyl chloride recovered in the gasholder, the change in level in the reactor, and the conversion of the batch at the time the relief valve opened:

- |                                                                                                  |             |
|--------------------------------------------------------------------------------------------------|-------------|
| a. Vinyl chloride charged to the reactor                                                         | 10,750 lbs. |
| b. Polyvinyl chloride formed at the time the relief valve opened                                 |             |
| $\left( \frac{2 \text{ hr}}{7.5 \text{ hr/batch}} \right) \times 9500 \text{ lb/batch}$          | 2,533 lbs.  |
| c. Pounds vinyl chloride in reactor when relief valve opened (lbs. charged - lbs. reacted)       | 8,217 lbs.  |
| d. Change in level in the reactor as a result of relief valve discharge and venting to gasholder | 25%         |
| e. Total vinyl chloride vented to gas-holder and atmosphere                                      | 2,054 lbs.  |
| f. Vinyl chloride vented to gasholder $(8,000 \text{ ft.}^3 \times 0.1855 \text{ lb./ft.}^3)$    | 1,484 lbs.  |
| g. Pounds vinyl chloride lost to atmosphere (1992 lbs. - 1484 lbs.)                              | 570 lbs.    |

THE GENERAL TIRE & RUBBER COMPANY  
Chemical/Plastics Division

GENC 004211

Over-pressurization of the reactor occurred due to a runaway reaction. A chemical shortstop was added twice to the batch in an attempt to bring the reaction back under control; however, the relief valve still opened. Immediately after the relief valve opened, the reactor was vented to the gasholder in an effort to reduce the emission of vinyl chloride.

A training session for the polymer operators is scheduled for this summer. The operators will be re-instructed as to the most probable causes of reactor over-pressurization due to runaway batches which may lead to emergency discharges, and how to recognize other conditions which may lead to discharges, and what corrective action must be taken to avoid emergency discharges.

This is our first emergency discharge since September 25, 1978.

Very truly yours,



C. E. Reynolds  
Process Engineer

CER:sm

cc: A. D. Jeffrey  
R. W. Laundrie  
G. E. Brumbaugh