UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
P. O. BOX 471, TEXAS CITY, TEXAS 77590

July 22, 1976

C/R E.P. Air Pollution

Mr. Ralph A. Griffin
Area Director
Occupational Safety and Health Administration
U. S. Department of Labor
Room 2118
2320 La Branch
Houston, Texas 77004

Dear Mr. Griffin:

Report of Emergency Vinyl Chloride Release
Texas City Plant

This report is presented as requested by Mr. Billy J. Stallings in our telephone conversation Monday morning, July 19, 1976. A preliminary report, required by 29 CFR 1910.1017 (n)(2), was made at that time. Information relevant to the nature and extent of employee exposures and measures to prevent future emergencies are provided below.

On Friday evening, July 16, 1976, insulation of an underground electrical cable failed which caused the circuit to be grounded. This fault tripped a major power plant breaker resulting in the loss of electrical power to all "D" Autoclave agitators and brine cooling cycle pumps as well as other strategic equipment which controls temperatures and reaction rates of Suspension Vinyl reactants.

Operation personnel sounded the emergency alarm and put on fresh air respiratory equipment. Five autoclaves, which were at various stages of reaction completion, were manually vented to the atmosphere under controlled conditions. This prevented the uncontrolled release that would have resulted from over pressurization of autoclave rupture discs.

It is estimated that 23,000 pounds of vinyl chloride monomer was released through 3-inch vents 30 feet above ground over a period of 45 minutes beginning at 5:40 p.m.

Due to the remote intake pressurized ventilation system, the computerized VFA control room monitor peaked at 0.6 ppm and averaged 0.2 ppm for the shift.

While returning equipment to service, at 9:15 a.m. Saturday, July 17, 1976, the thermal well packing baffle plate failed on the D-4 Autoclave, releasing about 2000 pounds of vinyl chloride monomer. Emergency procedures were set in action. Again, respiratory equipment was immediately put on. Evidence suggests that a large agglomerate of resin was thrown from the agitator against the baffle plate, thus causing the packing to fail.

It is our opinion that this emergency was handled in an orderly manner and that personnel exposures were properly controlled within permissible limits.

The Energy Systems Department will accelerate a preventive maintenance program to replace aging cable in an effort to prevent similar future emergencies.

We appreciate the cooperation and professional rapport extended to us by your staff. Please do not hesitate to contact us if further information is required or if we may be of service to your department.

Very truly yours,

D. E. Deese
Industrial Hygiene Director

ec

cc: Mr. D. L. Engle

To NYO Addressees: It is our current understanding that this type of reporting maintains the desired company-agency attitude. Your thoughts on this subject are invited.