Vista Polymers
A Division of
Vista Chemical Company

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VISTA

October 29, 1991

Mr. Wayne Anderson
North Air Emissions Section
Mississippi Department of Environmental Quality
Bureau of Pollution Control
P.O. Box 10385
Jackson, MS 39209-0385

Dear Mr. Anderson:

As required by 40 CFR Section 61.65 (a), this letter provides the details of a release of vinyl chloride monomer (VCM) from Vista Chemical Company's Aberdeen, Mississippi PVC plant.

At approximately 2:00 p.m. on October 21, 1991, two rupture disks placed in series burst resulting in a release of VCM. The rupture disks were in service on the flame arrestor that isolates the plant's incinerators from the PVC process. The incinerators are used to remove VCM from the process vent stream.

Normally, the pressure of the gas stream to the incinerators is reduced by a pressure control valve to 30 psig (see attached sketch). The flame arrestor is a 150 psig rated vessel protected by two rupture disks placed in series with a burst pressure of 75 psig. At the time of the release, the pressure control valve was plugged and was bypassed while being cleaned.

It is normal procedure to bypass this pressure control valve when it requires maintenance. The highest pressures normally encountered on this system even without the aid of the pressure control valve are below the burst pressure of the rupture disks.

The incinerators were not being used at the time of the release and were isolated from the flame arrestor by triple block valves. At approximately 2:00 p.m. an abnormally high pressure was experienced and transferred through the system to the blocked in flame arrestor. Both rupture disks burst relieving the contents of the flame arrestor and approximately 400 feet of two inch schedule 40 pipe. The equipment depressured in

approximately two minutes.

For purposes of the calculation of the release, the vapor relieved was assumed to be an ideal gas and to be 100% VCM. The total quantity released was calculated to be 45 pounds. Although we do not believe the gas released was 100% VCM, this allowed calculation of the largest possible release.

The release was reported to the National Response Center. The Mississippi Emergency Management Agency was also notified even though there was no danger of exposure outside the plant boundaries. This conclusion was based on the fact that no VCM readings were detected on the plant's fixed point monitoring system.

Following the release the bypass around the pressure control valve was closed and the pressure control valve was unplugged. To prevent future releases, a pressure sensing device was installed downstream of the pressure control valve that closes the block valve to the flame arrestor if system pressure exceeds 40 psig. This will prevent exceeding the burst pressure of the rupture disks during pressure control valve failure or normal maintenance.

If you need any further information concerning this matter please call me at (601) 369-3637.

Sincerely,

Kenneth G. Akins

Kenneth G. Akins
Environmental Coordinator

c: RWS, DCS, JEN
Houston: TGG, JCL, FGJ, LLZ