

Engineering and Work Practice Control Plan
Vista Polymers
Aberdeen PVC Plant
March 1994

- A- Work Practice Controls
- B- Uncompleted or Recently Completed Engineering Controls

1. Railcar Unloading

A) Fresh air respirators are required by the plant when connecting or disconnecting railcar unloading hoses due to the potential for employee exposure. Valves have been installed on the end of the railcar unloading hoses to reduce the volume of VCM released when the unloading hoses are disconnected. Although the plant has no regulated areas, as defined by CFR 1910.1017, warning signs are maintained in this area as a matter of good practice in controlling access to operating areas.

B) A project to reduce potential for emissions from VCM unloading compressor was completed in October 1993. The project included an eductor system to minimize back pressure on the distance piece vent. This project has reduced emissions that occur from packing leaks.

2. Polymerization Reactors

A) Steam stripping of the reactor slurry has greatly reduced emissions from this source. Tests show that the total VCM content of the reactor is less than 420 pounds of VCM per million pounds of PVC produced.

B)

3. Chem Wash Screener

A) This source was eliminated in September, 1990.

B)

4. Dump Screener

A) Improved steam stripping has greatly reduced VCM emissions from this source. Existing emissions are removed from the work area by an exhaust system. This system is not a significant source of VCM exposure.

B)

5. Blend Tanks

A) VCM emissions from this source are routed above the dryer roof structure and blend tanks resulting in an insignificant exposure potential to employees. The blend tanks are posted with warning signs and employees are required to wear breathing air when working above the blend tanks. No regular job requirement places employees at this site. Exposure potential is very low.

B)

6. Dryer Operation

A) Air stripping in the blend tanks reduces the VCM content of the slurry to below 10 ppm. This action has eliminated the potential for significant exposure to employees from drying operations.

B)

7. Water Discharges

A) Waste water streams from equipment in VCM service are routed to the batch water strippers. The strippers reduce the VCM content of the water to below 10 ppm. The waste water is then sent to the blend tanks or the cooling towers to be air stripped before discharge to Pond 1. The resulting discharge does not represent a significant exposure potential.

B)

8. Incinerator Vent

A) Vapor vents from equipment in VCM service are routed to the plant's incinerator which reduces the VCM content below 10 ppm. The resulting vent does not represent a significant exposure potential.

B)

9. Rotating Pumps, Compressors, and Agitators

A) All units in VCM service are equipped with double mechanical seals greatly reducing the potential of VCM exposure.

B)

10. Relief Valves

A) All relief valves that have the potential of discharging VCM to the atmosphere are equipped with rupture discs to eliminate leakage through the relief valve.

B)

11. Equipment Maintenance

A) Procedures have been established to clear equipment through the recovery system to reduce VCM emissions from equipment opening. Fresh air is required to prevent exposure when equipment is first opened and until the VCM level has been determined to be below the exposure limit.

B)

12. Fugitive Emissions

A) Leaks are detected and repaired through the plant's leak detection programs. These programs consist of leak patrols and fixed point monitors. In addition, bleeder valves are checked quarterly and have been either plugged or capped.

B)

13. Personnel Monitoring

A) Personnel monitoring is conducted regularly. The frequency of monitoring each individual depends upon the employee's exposure history and job classification.

B)