



Interoffice Communication

To : OSHA - ENGINEERING AND WORK PRACTICE CONTROL PLAN FILE

From : D. L. Mahler

Date : March 31, 1982

Subject : UPDATE OF ENGINEERING AND WORK PRACTICE CONTROL PLAN

Attached is an update of the plant's engineering and work practice control plan for the reduction of employee exposure to vinyl chloride.

Although most all planned engineering and work practice control programs for the plant have been implemented, some of the normal operational jobs do require the use of fresh air respirators. The OSHA vinyl chloride standard states "Employees engaged in any operation, procedure, or activity where a release of vinyl chloride liquid or gas might be expected as a consequence of the operation, which would result in an employee exposure in excess of the permissible limit, shall be provided and required to wear respiratory protection." Employees must use fresh air respirators for the following operations because of the possibility of exposure to greater than the permissible limit exists for these operations.

1. Opening and performing work on any piece of process equipment in vinyl chloride service including:
 - a. Pumps
 - b. Compressors
 - c. Filters
 - d. Vessels
 - e. Piping
2. Whenever employees are changing filters which have been contaminated by VCM. This includes but is not limited to fresh and recovered VCM filters, recovery seal water filters, recovery knockout tank scrubber water filters, etc.
3. Opening a Lenape manway on a reactor without using steam jet evacuation on the reactor.
4. Entering vessels or any confined area that have contained vinyl chloride.
5. Opening the dome cover on vinyl chloride railcars and hooking up and disconnecting lines to unload the railcars.
6. Entering the vinyl chloride railcar unloading compressor shed regulated area.
7. While on top of any blend tanks which are regulated areas.
8. When using the portable vinyl chloride detector to pinpoint a vinyl chloride leak detected by the continuous monitoring system when the VCM concentration is expected to exceed 10 ppm.

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9. When repairing a leak on any equipment which contains vinyl chloride.
10. Reactor dumping normally does not require the use of a fresh air respirator. Abnormal conditions which would require a fresh air mask are:
 - a. When working on a plugged reactor dump valve or line.
 - b. Dumping a coarse batch.
 - c. Inoperative Sweco exhausters.
11. Sampling of reactors, VCM railcars, or storage tanks.
12. Any other operation which has the possibility of resulting in exposure greater than the permissible exposure limit. The permissible exposure limit is defined as:
 - a. No employee may be exposed to vinyl chloride at concentrations greater than 1 ppm averaged over any 8-hour period.
 - b. No employee may be exposed to vinyl chloride at concentrations greater than 5 ppm averaged over any period not exceeding 15 minutes.
 - c. No employee may be exposed to vinyl chloride by direct contact with liquid vinyl chloride.

VCM cannister masks may be used under the following conditions:

1. Working in a contaminated area of less than 10 ppm for up to 10 hours.
2. Performing leak detection operations when Honeywell units are indicating between 1 and 10 ppm VCM.
3. Lab and Compound Department personnel may perform their normal duties when VCM levels are less than 10 ppm VCM as measured by the Lab Honeywell unit.
4. Escape from an area of high VCM concentration to obtain a Scott Air Pak.

David L Mahler

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Environmental Engineer

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Attachment

c: JF, CRM, PEM (6), SJV (5), AHS, JVV, RDJ, JAD, RAF, VLT, VEM

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