



Interoffice Communication

To OSHA-Engineering and Work Control Plan File
From M. G. Jakel
Date April 14, 1983
Subject UPDATE OF ENGINEERING AND WORK PRACTICE CONTROL PLAN

Attached is an update of the Plant's engineering and work practice control plan for complying with the OSHA VCM Exposure Standard.

All work practice controls have been implemented and significant progress has been made on most of the engineering controls. The startup of the larger Dump Screener exhausters has significantly reduced VCM levels in the V-40 area. Completion of other projects to improve ventilation and simplify cleaning of the recovery filters in the V-40 area should further reduce levels. However, we will have to rely on breathing air to limit VCM exposure from some exposure sources.

A Class "A" design has been completed to improve and simplify cleaning of the V-40 recovery filters. This project was included in the 1983 Capital Budget and will be AFE'd in the near future.

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Approved:

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MGJ-dh

Attachment

cc: RAC, AWS, RDF, RP, CWT, JPW, JDO, RVG, REB, DPB, RJK, JBB, GHF, JDG
File - OSHA Engineering and Work Practice Controls

CCR 000010469

ENGINEERING AND WORK PRACTICE CONTROL PLAN
FOR COMPLIANCE WITH OSHA VCM EXPOSURE STANDARD
CONOCO CHEMICALS
OKLAHOMA CITY PVC PLANT
APRIL, 1983

<u>Exposure Source</u>	<u>Work Practice Controls⁽¹⁾</u>	<u>Engineering Controls In Progress</u>
1. Residual Monomer in slurry and resin.	1a. All batches are steam stripped to remove unreacted VCM from the slurry prior to dumping the slurry to the blend tanks. Tests show that the slurry contains less than 220 PPM VCM after steam stripping. 1b. After the slurry is dumped from the reactors to the blend tanks, the slurry is stripped with air to further reduce the VCM concentrations. Tests show that the VCM content of the dried resin is below 5 PPM when the combination of steam and air stripping is used.	1a. A project was developed in 1980 which provides a system to reduce VCM contamination of stripped reactor slurries caused by leaking reactor valves. This should further reduce the VCM concentration of stripped slurries. Mechanical design work is complete. Completion is scheduled for the third quarter of 1983. 1b. A project for removing the blend tank vents from the process area was developed and approved in the 1980 Capital Budget. Mechanical work is in progress. Completion is scheduled for the 3rd quarter of 1983.
2. Obtaining and handling samples.	2a. Wear personnel protection equipment which meets OSHA standards when sampling can result in VCM exposure. 2b. All reactor samples are obtained via the closed sampling system.	
3. VCM railcar.	3. Wear personnel protection equipment which meets OSHA standards while connecting and disconnecting tank cars.	
4. Chemical wash screen.	4. Steam stripping of all batches has greatly reduced the possibility of exposure from this source.	

Note (1): As part of the work practice controls, two Honeywell VCM monitors sample twenty locations in the process and tank farm areas to detect VCM leaks.

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<u>Exposure Source</u>	<u>Work Practice Controls⁽¹⁾</u>	<u>Engineering Controls in Progress</u>
5. Reactor rinse after dump.	5. The effluent from the initial water rinse after reactor dump is transferred to the dump system.	
6. Flexible hoses, pipe unions and flanges, valve stems and swivel joints in VCM service.	6. At least once per month, flexible hoses, pipe unions and flanges, valve stems and swivel joints in VCM service are checked for leaks. Leaks are repaired on the spot if possible and are put on the maintenance schedule where they cannot be repaired immediately.	
7. Opening and working on equipment or piping which may contain VCM.	7a. Before opening, VCM is removed from equipment or piping to the lowest practical level by flushing, purging and/or evacuation where possible. 7b. Wear personnel protection equipment which meets OSHA standards when opening equipment or piping which may contain VCM. 7c. Before commencing repair work, measure the VCM concentration in or near the opened equipment or piping to determine what protective equipment is required and if further VCM removal is necessary.	
8. Dump screener	8. Wear personnel protection equipment which meets OSHA standards if the VCM monitors detect VCM concentrations in the area around the dump Sweco.	8. A larger exhaustor system has been installed and is operational. Discharge piping remains to be completed.

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<u>Exposure Source</u>	<u>Work Practice Controls⁽¹⁾</u>	<u>Engineering Controls In Progress</u>
9. Filters	9. Wear personnel protection equipment which meets the OSHA standard when working with the filters.	
9a. V-20 seal water.		9a. The existing filters have been replaced with units which require less maintenance.
9b. V-40 seal water.		9b. A Class A design for improving and simplifying cleaning procedures has been completed. This project will be AFE'd during the second quarter of 1983.
9c. V-40 K.O. circulation water.		9c. A Class A design for improving and simplifying cleaning procedures has been completed. This project will be AFE'd during the second quarter of 1983.
10. Mechanical seals on G-101 and G-105 VCM transfer pumps.	10. Wear personnel protection equipment which meets the OSHA standard when the fixed point monitors indicate a leak.	

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