



Interoffice Communication

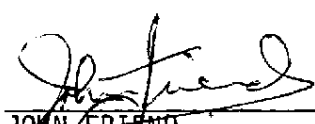
To OSHA-Engineering and Work Control Plan File
From J. Paul Warner
Date April, 1980
Subject UPDATE OF ENGINEERING AND WORK PRACTICE CONTROL PLAN

Attached is an update of the Plant's engineering and work practice controls 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 start-up of the EPA compliance equipment has significantly reduced VCM levels in the Plant. Completion of the projects to improve ventilation 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.

J. Paul Warner

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Approved: 

JOHN FRIEND
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Oklahoma City Chemical Plant

JPW-spt

Attachment

CC: JF, AWS, WHN, RP, JBE, MLA, DWH, JDO, DMW, REB, DPB, OLE, JDG, DWT, GHF

CCR 000010491

ENGINEERING AND WORK PRACTICE CONTROL PLAN
FOR COMPLIANCE WITH OSHA VCM EXPOSURE STANDARD
CONOCO CHEMICALS
OKLAHOMA CITY PVC PLANT
APRIL, 1980

<u>Exposure Source</u>	<u>Work Practice Controls (1)</u>	<u>Engineering Controls</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. Preliminary design work is in progress to replace the existing dump system with an enclosed system. 1b. A design for removing the blend tank vents from the process area has been developed and included in the 1980 Capital Budget.
2. Obtaining and handling samples.	2. Wear personnel protection equipment which meets OSHA standards when VCM samples or reactor samples are obtained.	2. A design for a closed reactor system is being developed. VCM from the samples will be routed to a control 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 reduced the possibility of exposure from this source.	4. A new exhaustor system has been installed, greatly reducing 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.

CCR 000010492

ENGINEERING AND WORK PRACTICE CONTROL PLAN
FOR COMPLIANCE WITH OSHA VCM EXPOSURE STANDARD
CONOCO CHEMICALS
OKLAHOMA CITY PVC PLANT
APRIL, 1980

CCR 000010493

<u>Exposure Source</u>	<u>Work Practice Controls⁽¹⁾</u>	<u>Engineering Controls</u>
5. Reactor rinse after dump	5. Transfer the effluent from the initial water rinse after reactor dump 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.	7a. A project for installing a large exhauster on the roof of the V40 building has been submitted as part of the 1980 capital budget. This will improve ventilation in the V40 area when equipment is being worked on.
8. Dump screener	8a. Wear personnel protection equipment which meets the OSHA standard if the VCM monitors detect VCM concentrations in the area around the dump Sweco.	8a. A project for installing a larger exhauster system is included in the 1980 Capital Budget.
9. V-20 seal water filters	9. Wear personnel protection equipment which meets the OSHA standard when working with the filters.	9a. A design to reduce exposure from this area is being developed.

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.



Interoffice Communication

To John Friend
From K. L. Fogg
Date November 26, 1979
Subject OSHA COMPLIANCE PLAN REVIEW

On November 25, 1979, Plant personnel performed an OSHA compliance plan review to identify areas where improvements are required to keep this facility in compliance with OSHA guidelines. Those areas are:

1. Fire Protection - Additional work is required to provide rescue capability, via hose line method, in the V-40, V-20, and tank farm areas. Expansion of the fire water loop in the tank farm area is to be evaluated by Plant personnel.
2. Chemical Exposure Abatement - Work continues to identify VCM exposure sources and to reduce or eliminate them as required. A reassessment and redefinition of the regulated areas should be made to insure that these areas are correctly defined. The Plant will perform a toxicity risk assessment on any new chemicals introduced into this facility.
3. Safety Guidelines - A comprehensive safety manual will be published to provide employees a reference source for safety and health related information.
4. Emergency Training and Review - Emergency procedures are being reviewed and emergency training is being re-evaluated.
5. Maintenance Equipment Inspection - A program for inspection of maintenance equipment is being developed.
6. Area Inspections - Walking/working surface inspections and accident potential surveys will be performed annually to identify potential hazards in the Plant.
7. Respiratory - The Plant will re-evaluate the respiratory protection program and make required changes to insure compliance with OSHA guidelines.

Should you require any additional information, please contact me.


KEITH L. FOGG
Safety and Health Director

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