

VINYL CHLORIDE EMISSIONS TEAM MEETING

February 27, 1976

Attendees:

A. S. Amatangelo
R. W. Martin
W. R. Manning
C. E. Fry
G. W. Stocking

C. Bayard
C. E. Herald
R. N. Wheeler, Jr.
J. L. Worstell ←
A. J. Romanach

Copy to:

T. L. Dawson
L. P. McMaster
E. Bell
H. R. Guest
T. T. Szabo

A. E. Donaldson
J. L. Carvajal
R. W. Sesler
M. E. Eisenhour
J. B. Hollingsworth

OSHA STANDARD

1. Amendments to the OSHA standard will not be permitted in the foreseeable future per Mr. Barry White of OSHA.
2. Interpretations of the Standard

The most recent interpretation cited by Mr. Barry White revised the definition of "fabricated product". A "fabricated product" is a material which on further processing does not emit sufficient vinyl chloride into the work space air to require the PEL to be exceeded. This change permits VYFS as well as bagged non-solvent resin to be considered a "fabricated product".

~~The Organizational Resources Committee Vinyl Chloride Task Force is informally offering to establish a joint industry-OSHA working group for the vinyl chloride standard.~~ This could be a major step in closer cooperation between industry and OSHA if the offer is accepted.

UCC 104103

3. Citations

(a) The citation involving Genesco at Knoxville, Tennessee is still unresolved though there appears to be no reason for its continuance. This is a state OSHA action.

(b) Discussion with various other industry representatives through Organization Resources Council has indicated that OSHA is not enforcing the standard in total. Citations are being issued for failure to have proper training or procedures after the compliance officer is notified of a massive release. ~~OSHA people are rumored to be~~ very low currently.

4. Training

The OSHA standard requires that the standard be reviewed with the employee on an annual basis. Training TV tapes will be redone at South Charleston in the week ending March 6, 1976.

5. Permanent Variances from the OSHA vinyl chloride standard are available only if an owner/operator demonstrates that a particular piece of equipment or a particular procedure is equal to or better than the same item required in the standard. To date there appears to be no need for a permanent variance in any Union Carbide Corporation operation.
6. Temporary Variances from the OSHA vinyl chloride standard may be obtained for short periods. Since the standard has been in effect for almost a year the only temporary variance would be related to the permissible exposure limits which go into effect April 1, 1976. These variances if requested must show a compliance plan, be acceptable to the employees or their representatives and show evidence of good faith efforts to achieve the levels required by the standard. Firestone has petitioned for a continuation of the 25 ppm voluntary employee ceiling. Borden is considering a request for one year at 8 ppm TWA.

PROPOSED EPA STANDARD

1. Content

The proposed standard was reviewed briefly from the attached summary sheet. The principal area of confusion was on the items under "Fugitive Emissions". It should be noted that the proposed standard bans emissions during sampling and requires that emissions be minimized in all other "Fugitive Emissions" section items.

2. Comments on the proposed standard were submitted to EPA by Union Carbide Corporation February 23, 1976. These were on specific items in the standard which are overly restrictive or are not clear. Copies of the comments are available from R. N. Wheeler. Despite the obvious merit of the comments their acceptance by EPA should not be presumed for planning purposes.
3. The time schedule for the proposed EPA vinyl chloride standard is as follows:

(a) ~~Promulgation - no later than June 2, 1976.~~

(b) ~~Compliance - except for waivers - no later than September 17, 1976.~~

(c) ~~Waiver time limit - no later than June 20, 1978.~~

4. Equivalency

61.66 Equivalent Equipment and Procedures

Upon written application from an owner or operator, the Administrator may approve use of equipment or procedures which have been demonstrated to his satisfaction to be equivalent in terms of reducing vinyl chloride emissions to the atmosphere to those prescribed for compliance with a specific paragraph of this sub part.

The most pressing points of equivalency are the prescribed uses of Test Method 106 and Test Method 107. Neither of these methods are in general use by Union Carbide Corporation; thus, ~~equivalency by Union Carbide Corporation methods must be established by Union Carbide Corporation.~~ ~~Written approval of the Administrator is required for Union Carbide Corporation equivalency with Test Method 106.~~ Messrs. A. E. Gabany and M. E. Griffith will establish Union Carbide Corporation equivalency to Test Method 107.

WCY-
Note

5. Waivers from certain portions of the proposed EPA standard may be obtained for periods not exceeding two years. Requests are to be made in writing and shall include the following information.
 - (a) A description of the controls to be installed to comply with the standard.
 - (b) A compliance schedule including the date each step toward compliance will be reached.
 - (c) A description of interim emission control steps which will be taken during the waiver period.

Based on the information provided, the Administrator may grant a waiver of compliance. The waiver may contain such additional conditions as the Administrator determines to be necessary to assure the installation of the necessary controls within the waiver period and to assure protection of the health of persons during the waiver period.

For greater detail see the attached Part 61 National Emission Standards for Hazardous Air Pollutants. The foregoing is shown to stress that applications for waivers will be complicated and approvals not automatic.

Status

Solvent Resins was reviewed by Mr. C. E. Fry for 514. No data was available for 515.

Dispersion Resins was reviewed by Mr. G. W. Stocking.

514 Distribution was reviewed by Mr. R. E. Jarrett.

Suspension - Non Solvent Resins were not discussed.

PROGRAMS FOR COMPLIANCE WITH OSHA AND EPA

514 Distribution

OSHA

No temporary variance will be required. Monitoring shows VCM generally below action level except for leaking tank car valves.

A written procedure for abatement of the leaking tank car valve problem is needed.

The OSHA training program will be updated and completed in March, 1976.

EPA

~~The vinyl chloride storage sphere will be removed from service, inspected, the relief valve repaired and the relief valve rupture disc assembly revised.~~

The sphere work will be completed by September 1, 1976. The sphere should not require further work for ten years.

The tank car unloading hoses will be revised so that the sections vented on completion of unloading will contain less than one gallon of VCM gas per hose.

The Corkean stripping compressors will be checked in regard to the rod packing system used.

A plan will be prepared for equipment maintenance under the EPA proposed standard identifying pipeline connections, compressors, etc. that may be needed.

Work will begin on identification of possible waiver requests and on assembly of data for EPA's Initial Report.

A vent line from the sphere to the tank car unloading rack will be installed to vent inerts from the sphere to the tank cars being unloaded.

Dispersion Resins

OSHA

No temporary variance will be required.

The OSHA training program will be updated and completed in March, 1976.

A compliance program based on the planned shutdown will be prepared.

EPA

No projects required.

Waiver ~~of the requirement that the sphere be replaced by a tank car unloading rack~~

1. ~~Reactor connections~~
2. ~~Replace the sphere with a tank car unloading rack~~
3. ~~Pump seals~~
4. ~~Manual maintenance program~~

Work on the assembly of data for the Initial Report and the Leak Program will begin.

514 SOLVENT RESINS

OSHA - EPA Projects

1. Rectifying (stripping) column modifications

Cost \$110,000

No completion date

2. Portable compressor

Cost \$48,000

No completion date

3. Replace four vinyl chloride pumps

Cost \$24,000

No completion date

4. Vent line to powerhouse

Cost \$60,000

938-5374

Completion by March 15, 1976

5. Revise packing on autoclave pumps

Cost ?

Two are complete

Completion by ?

6. Revise Number 14 stripping compress
packing

Cost \$5,000

Completion date ?

7. 2708 Tank Vent

Cost ?

Completion date ?

Under study - solution being tested

8. Revise packing on two Stripping System Pumps

Cost	?
Completion	?
Under study - solution being tested	

9. Install rupture discs under all relief valves in vinyl chloride service

Cost	\$100,000
Completion date	?

10. Install a double mechanical seal or stripping dilution tank agitator

Cost	\$10,000
Completion date	?

11. Autoclave agitator secondary power supply

Cost	?
Completion date	?
Investigation only. Need is not clearly defined by EPA.	

12. Autoclave pressure test vent gas

Cost	?
Completion date	?
Investigation of disposal in progress	

13. Sampling of autoclaves

Cost	?
Completion date	?
EPA procedure requires study	

14. Revise autoclave pressure controller to eliminate liquid-filled leads

Cost	\$5,000
Completion date	?

15. Vinyl chloride system maintenance

Cost	?
Completion date	?

A procedure with appropriate equipment must be defined to meet EPA's limits for equipment opening emissions.

16. Vinyl chloride transfer line repairs

Cost	?
Completion date	?

This work may be done in total or in pieces to replace corroded pipelines.

OSHA STANDARD

No temporary variances will be required.

Update and complete the OSHA training program.

A written abatement program is needed covering planned reductions in VCM concentration.

EPA STANDARD

Waivers from the proposed standard will be required in the following areas:

1. Vinyl chloride system maintenance
2. Number 14 compressor packing
3. Four vinyl chloride transfer pumps
4. Rupture discs under all relief valves
5. Dilution tank agitator seal
6. Rectifying column modifications (maybe)

Schedules for individual items and projects will be developed by the various department managers to meet governmental deadlines.


R. N. Wheeler, Jr.

RNWJr. /pm
Attachments
March 3, 1976