

**UNION
CARBIDE**

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P. O. BOX 8004, SOUTH CHARLESTON, W. VA. 25303

94(b)

SOUTH CHARLESTON PLANT

July 5, 1974



Mr. Julius Jimeno
Hearing Management Officer
Docket OSH-36
Room 200
Occupational Safety and Health Administration
United States Department of Labor
1226 M Street, N. W.
Washington, D. C. 20210

FILE COPY

Dear Mr. Jimeno:

Attached are three copies of an additional appendix to
be attached to the

TESTIMONY OF RICHARD J. HUGHES
Vice President of Union Carbide Corporation
Before
Department of Labor
Occupational Safety and Health Administration

Vinyl Chloride Occupational Exposure Standard

Very truly yours,

A handwritten signature in cursive script, appearing to read "R. N. Wheeler Jr.".

R. N. Wheeler, Jr.

RNWJr/ra

Attachments

001850

APPENDIX TO TESTIMONY
TO
RICHARD J. HUGHES
VICE PRESIDENT, UNION CARBIDE CORPORATION

- A. PROPOSED STANDARD 1910.93q VINYL CHLORIDE
LEVEL OF EXPOSURE - METHOD OF ANALYSIS
- B. PROPOSED STANDARD 1910.93q VINYL CHLORIDE
(m) TRANSPORTATION LOADING AND UNLOADING
- C. VINYL CHLORIDE MONOMER THRESHOLD ODOR
CONCENTRATION IN AIR
- D. VINYL CHLORIDE RESIN OPERATIONS
UNION CARBIDE CORPORATION
JOB CLASSIFICATIONS AND EXPOSURE
MONITORING

001851

PROPOSED STANDARD

1910.93q VINYL CHLORIDE

LEVEL OF EXPOSURE - METHOD OF ANALYSIS

The proposed standard for employee exposure is set at no-detectable level, as determined by a sampling and analytical method capable of detecting vinyl chloride at concentrations of 1 ppm with an accuracy of 1 ppm $\pm$ 50%. This specification has been loosely interpreted as permitting exposure levels up to 1 ppm.

The specification on the method of analysis and the interpretation of the permissible level of exposure resulting therefrom are imprecise. Incorporation of this specification into the permanent standard would result in confusion and ultimately endless litigation on the meaning of the results.

A more precise specification of the method of analysis would be as follows:

The proposed standard for employee exposure is set at no-detectable level as determined by a method capable of detecting 1 ppm with a reproducibility of $\pm$ 0.5 ppm at the 95% confidence level as defined by ASTM Standard, E 180-67.

Even with the more precise specification of the method of analysis proposed, the results of single samples could vary considerably from the desired results. Assuming no errors in sampling, the employer would have to control the absolute concentration of vinyl chloride in the work space air at less than

001852

0.3 ppm to run no risk of an OSHA citation for non-compliance. From the enforcement standpoint, the work space air could have as much as 3 ppm or more before there would be no risk of not getting a non-compliance citation. To reduce the 0.3 to 3.0 ppm range of questionable compliance, the only alternatives are to specify a more precise method of analysis or to analyze more than one sample for each determination.

For more details concerning the variability of the method of analysis and its specification, see the attached letters.

~~If the Department of Labor clearly intends to enforce the no-~~
~~detectable level, they are misleading industry when they infer in testimony that~~
~~this is roughly 1 ppm.~~ Similarly, if they intend to limit employee vinyl chloride exposure to 1 ppm, then this should be made plain and the method of analysis chosen to suit the situation.

RNWheelerJr/ra

July 5, 1974

001853