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UNION CARBIDE CORPORATION
270 PARK AVENUE, NEW YORK, N.Y. 10017
LAW DEPARTMENT

December 18, 1974

Mr. R. N. Wheeler
Chemicals and Plastics Division
Post Office Box 8004
South Charleston, West Virginia 25303

Re: OSHA Vinyl Chloride Standard
Permissible Exposure Limits
and Respiratory Protection

Dear Mr. Wheeler:

You have raised certain questions in your letter of December 9th to which I have already given you verbal answers; it would seem appropriate at this point to put them in writing:

In response to Question 1 which is as follows:

In measuring excursions under the permissible exposure limits tow results were obtained -- one an automatic chromatograph reading of ten parts per million, and one carbon tube reading of three parts per million, measured over a fifteen minute period. Has the permissible limit been exceeded?

The permissible limit has been exceeded with respect to the automatic chromatograph reading of ten parts per million but not with that obtained from the carbon tube.

As to Question 2 which reads as follows:

A closed semi-trailer is opened and a spot sample of the air in the trailer shows a concentration of four parts per million. The trailer is unloaded by a crew of men in one hour. During the remainder of the day, they handle miscellaneous freight. Have these men been exposed in excess of the action level?

There has been no exposure in excess of the action level of the standard since it is defined as a concentration of vinyl chloride of .5 parts per million averaged over an eight hour work day and only an exposure in excess of that requires action by the Company; this exposure is right on the top limit.

In answer to Question 3, which reads as follows:

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If the concentration in the trailer is eight parts per million in Question 2 and the unloading takes one-half hour -- have the men been exposed in excess of the action level? Have the men been exposed in excess of the permissible limits? If the answer is no for the action level and yes on the permissible limit, has there been a violation of the standard?

The men have not been exposed in excess of the action level for the reason stated in the answer to Question 2. They have, however, been exposed in excess of the permissible limits because they have exceeded five parts per million averaged over a fifteen minute period. Such an exposure obviously is a violation of the standard, however inconsistent that reply may seem.

In response to Question 4, which reads as follows;

When the concentration of vinyl chloride in the workspace air is 25 parts per million, the worker may, at his option, work without a respirator for the entire eight hour period. Is this a true statement or must the exposure time be limited to fifteen minutes for the entire work period?

A worker may at his option work without a respirator for the entire eight hour period with the concentration of vinyl chloride in the workspace area at no time exceeds 25 parts per million. This requirement, of course, applies only until January 1, 1976. Exposure time may continue for the entire period and it need not be limited by any other exposure limits in the standard; the time weighted average exposure average of one part per million is not applicable under both the language of the standard and the preliminary findings thereof. It is only the ceiling that counts in determining whether or not the wearing of a respirator is mandatory or optional and an employee can theoretically be exposed to 24 parts per million time weighted average for eight hours and still comply with the standard without wearing a respirator if the ceiling to which he is exposed at no time exceeds 25 parts per million.

In answer to Question 5 which reads as follows:

All employees of an employer have indicated that they will work without respiratory protection when the concentration does not exceed 25 parts per million in 1975.

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a) Should the employer obtain signed statements from each employee stating their desire?

b) Is the employer relieved of the requirement to provide respirators for each employee?

I do not recommend that the employer obtain signed statements from each employee indicating in writing that they will work without respiratory protection. The standard does not require that their option be exercised in writing but may be expressed verbally. We should not exceed the standard in this regard. However, as to any such employee the fact that they have exercised their option not to wear respirators does not relieve the employer of his obligation to make them available at all times, should they change their mind.

In response to Question 6, which reads as follows:

The employer installs an automatic sequential chromatograph which analyzes nineteen separate points within the plant every forty minutes. It is equipped to alarm when any analysis exceeds 25 parts per million.

a) Is the employer also required to monitor each employee via a personal sampler?

b) Does the automatic sequential chromatograph with alarm meet the standard's requirements for a continuous monitoring and alarm system to warn employees when they must put on air-supplied respirators?

The employer is not required to monitor each employee via a personal sampler where he has installed and uses an automatic sequential chromatograph. Such a device does meet the requirements of the standard and the government specifically so stated in the brief filed by the Department of Justice in opposing our petition to review the standard.

Finally Question 7, which reads as follows:

The employer's monitoring program involves the use of personal samplers mounted on the employee. Is the employer required to monitor each employee or may he monitor the jobs and assign exposure values to each employee in those jobs?

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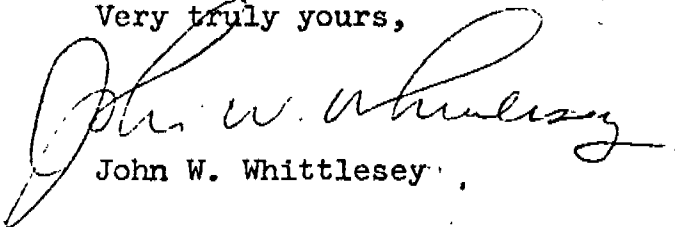
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An employer may monitor the jobs performed by an employee and need not monitor each employee. The preamble of the standard specifically states that either employee personal or area monitoring is appropriate to meet the monitoring requirements of the standard.

I hope that the above will serve to answer your questions. I will be happy to clarify any further matter that may arise.

Very truly yours,



John W. Whittlesey

JWW:me

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