

EMERGENCY TEMPORARY STANDARD FOR EXPOSURE TO VINYL CHLORIDE

1910.93q Vinyl Chloride.

(a) Scope and application. (1) This section applies to any area or operation in which vinyl chloride (chloroethene), Chemical Abstracts Service Registry Number 75015, is manufactured, reacted, handled, processed, released, repacked, or stored.

(2) This section does not apply to the handling, storage, or other use of vinyl chloride polymers and copolymers in the form of fabricated products.

(b) Permissible exposure. The occupational environment shall be controlled so that no employee is exposed to vinyl chloride at a concentration in excess of 50 parts per million (ppm) (127.0 mg/cum).

(c) Monitoring-(1) Initial monitoring. As soon as possible but not later than April 22, 1974, every employer of an employee working in an area or operation in which vinyl chloride is manufactured, reacted, handled, processed, released, repacked, or stored shall begin monitoring the ambient air of the area to determine whether it contains vinyl chloride in concentrations in excess of 50 ppm.

⇒ NOTE 1: Monitoring - We take this to mean a continuous air monitor. We have a chromatograph on order to do this monitoring.

Until the chromatograph comes in, we will use saran bag grab samples to monitor the ambient air. Daily samples will be run in designated process and control areas.

⇒ NOTE 2: Area samples -

Big lab	Control room
Load racks	C-6 splitter
C-8C caustic pot	C-8B & C area
Check tank area	C-9 area
Scrubber area	R-1E area

⇒ (2) Frequency. Monitoring of a sufficient number of employees so that a representative sample of exposures to vinyl chloride may be determined shall be accomplished not less frequently than weekly until all results for three consecutive weeks are at or below 50 ppm. Thereafter, monitoring shall be conducted not less frequently than monthly so long as the concentrations of vinyl chloride do not exceed 50 ppm. If a monitoring sample reveals vinyl chloride in concentrations in excess of 50 ppm, weekly monitoring shall be resumed until all results for three consecutive weeks are at or below 50 ppm.

⇒ NOTE 3: Frequency - Each classification or job will be monitored to determine the eight hour T.W.A. This total exposure will be calculated as if it happened in a ten minute period. If this number exceeds 50 ppm vinyl, saran bag grab samples (ten minute maximum) will be taken to determine if any part of his daily activities exceed 50 ppm.

⇒ Any eight hour sample (calculated as if it occurred within ten minutes) that exceeds 50 ppm will be repeated weekly until three consecutive weeks show less than 50 ppm.

Note 3 continued -

-> All samples (personnel) will be repeated monthly. If they come up above 50 ppm at anytime, they will be repeated weekly until three consecutive weeks are at or below 50 ppm.

-> High exposure sources will be monitored with halide meter to determine if instantaneous ceiling exceeds 50 ppm. These problem areas will be worked on first.

(3) Method of monitoring. Personnel monitoring shall be accomplished by collecting samples by suitable devices worn by the employee. The samples shall be analyzed by gas chromatography or by any other method which is of equivalent sensitivity. The analytical procedure shall be sensitive to 5 ppm of vinyl chloride in air with an accuracy of ± 20 percent for a ten minute air sample.

-> NOTE 4: Method of monitoring - Each employee will be monitored using the eight hour charcoal adsorption tube at least once a year. Each classification or job will be repeated every month.

(4) Employee observation of monitoring. Employees working in an area or operation whose ambient air is monitored, or their representatives, shall be given a reasonable opportunity to observe the personnel monitoring required by this section.

(5) Recordkeeping. The results of all monitoring shall be recorded in writing. The records shall be retained for at least 5 years and shall be made available for inspection and copying by representatives of the Assistant Secretary of Labor for Occupational Safety and Health and the Director of the National Institute for Occupational Safety and Health (NIOSH).

(6) Employee access. Each employee and former employee shall have access to such records of the results of monitoring required by this section as will indicate his own exposure to airborne concentrations of vinyl chloride.

(7) Employee notification. Each employer shall promptly notify any employee who has been or is being exposed to vinyl chloride in concentrations in excess of 50 ppm, and shall inform him of the corrective action being taken.

(d) Compliance. (1) Whenever any monitoring sample reveals vinyl chloride at a concentration in excess of 50 ppm, or whenever any accident, such as rupture of equipment or spillage, indicates the likelihood of a greater than usual release of vinyl chloride into the ambient air, all employees exposed to such concentrations shall be withdrawn to a safe area and shall not be permitted to re-enter the work area unless they wear either Type C continuous flow or pressure demand air supplied respirators or self-contained breathing apparatus.

(2) Work which may reasonably be expected to release vinyl chloride in concentrations in excess of 50 ppm, such as repair, maintenance or cleaning of reactors or other equipment containing vinyl chloride, shall be accomplished only by employees wearing Type C continuous flow or pressure demand air supplied respirators or self-contained breathing apparatus.

(3) In any case covered by paragraphs (d) (1) or (d) (2) of this section, in addition to providing the required respirators, the employer shall examine and analyze the source of the excessive concentrations of vinyl chloride in order to determine feasible engineering and operational controls appropriate to reduce the airborne concentrations to the permissible level. Such controls shall be implemented as quickly as possible.

(4) Periodic tests shall be conducted for equipment leaks and for emissions of vinyl chloride which may result from work practices.

1910.19 Special provisions for air contaminants.

(a) Asbestos dust. Section 1910.53n shall apply to the exposure of every employee and place of employment covered by 1910.12, 1910.13, 1910.14, 1910.15, or 1910.16, in lieu of any different standard on exposure to asbestos dust which would otherwise be applicable by virtue of any of those sections.

(b) Vinyl chloride. Section 1910.93q shall apply to the exposure of every employee to vinyl chloride in every employment and place of employment covered by 1910.12, 1910.13, 1910.14, 1910.15, or 1910.16, in lieu of any different standard on exposure to vinyl chloride which would otherwise be applicable by virtue of any of those sections.

Effective date. These amendments shall become effective on April 5, 1974.

(Secs. 4, 6, and 8, 84 Stat. 1592, 1596, 1599 (20 U.S.C. 653, 655, 657):
Secretary of Labor's Order No. 12-71,36FR8754.)

Signed at Washington, DC, this 2d day of April 1974.

John Stender
Assistant Secretary of Labor.

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