UNITED STATES DEPARTMENT OF LABOR

Occupational Safety and Health Administration

In the Matter of:	
PERMANENT OCCUPATIONAL SAFETY AND HEALTH STANDARD FOR EXPOSURE TO VINYL CHLORIDE	Title 29, Code of Federal Regulations, §1910.93q, Vinyl chloride.

Petition for Stay of Effective Date of Standard

The Society of the Plastics Industry, Inc. (SPI), 1/ by its attorneys, hereby petitions the Assistant Secretary of Labor for Occupational Safety and Health to stay the recently promulgated standard for occupational exposure to vinyl chloride, 29 C.F.R. §1910.93q (39 Fed. Reg. 35890, October 4, 1974).

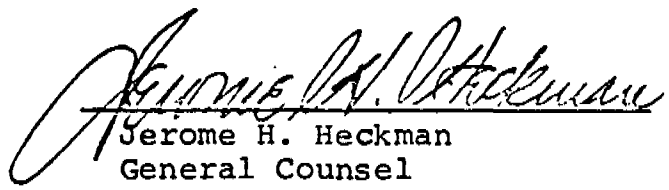
1/ The Society of the Plastics Industry, Inc. is a corporation organized under the Not-for-Profit Corporation Law of the State of New York. It is composed of approximately 1,400 member companies and individuals who supply raw materials; process or manufacture plastics or plastics products; engineer or construct molds or similar accessory equipment for the plastics industry; and engage in the manufacture of machinery used to make plastics products for materials of all types. The Society is the major national trade association of the plastics industry; its membership is responsible for an estimated 75% of the total dollar volume of sales of plastics in this country. It is through the SPI Vinyl Chloride Monomer and Polyvinyl Chloride Resin Producers Committee, an operating unit of SPI, that the plastics industry has coordinated its participation in the rulemaking proceedings concerning occupational exposure to vinyl chloride. As such, therefore, the SPI has a direct interest in this matter in its capacity as designated representative of the affected employers.

The primary ground for requesting this relief is, as set out in more detail in the attached Affidavit of Jerome H. Heckman, Esq., that the respiratory protection requirements of the standard are beyond the compliance capabilities of the industry. Firstly, the permitted equipment is not available in sufficient supply now nor will it be on January 1, 1975 or in the immediate future. Secondly, not only is much of the respiratory protective equipment specified for use under the Standard not as yet approved for the specified uses, but, on the basis of the attached memoranda from the Acting Director of the NIOSH Office of Research and Standards Development to the Acting Director of NIOSH dated October 18, 1974 and from the Acting Director of NIOSH to the Director of the OSHA Office of Standards, it is anticipated that such yet to be approved respiratory protective equipment will not be approved by January 1, 1975. Thirdly, a sufficient supply of such equipment cannot, even with all appropriate approvals, be made available in sufficient time for the industry to comply with the standard by its present effective date.

Failure to grant the requested relief would force large segments of the vinyl chloride monomer and polyvinyl chloride resin industry to cease manufacturing operations after December 31, 1974.

WHEREFORE, IT IS RESPECTFULLY REQUESTED that the Secretary expeditiously grant the relief requested herein, to wit: stay the effective date of that portion of the standard due to become effective January 1, 1975; and continue the aforementioned stay in effect until such time as sufficient quantities of approved respiratory protective equipment are available to the industry, or until a court determines that compliance with the relevant portions of the standard is not required.

Respectfully submitted,



Jerome H. Heckman
General Counsel

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

Of Counsel:

Keller and Heckman
1150 17th Street, N.W.
Suite 1000
Washington, D.C. 20036
Telephone: (202) 296-2700

DATE: November 5, 1974

AFFIDAVIT

City of Washington)
) ss:
District of Columbia)

I, Jerome H. Heckman, of Washington, D.C., attorney for The Society of the Plastics Industry, Inc. (SPI), being first duly sworn, do depose and say as follows:

1. I am an attorney at law, a partner in the Washington, D.C. law firm of Keller and Heckman and am General Counsel to The Society of the Plastics Industry, Inc. In that capacity, I have and continue to represent the Society and its members in matters with regard to the Department of Labor's Occupational Safety and Health Administration standard setting proceedings in the matter of occupational exposure to vinyl chloride.

2. I have reviewed the recently promulgated occupational exposure standard for vinyl chloride, 29 C.F.R. §1910.93q, published in the Federal Register on Friday, October 4, 1974 at page 35890 et seq. Based on knowledge, information, and belief acquired by receiving information from companies in the industry, I further state that, with regard to the aforementioned standard for occupational exposure to vinyl chloride, it will be impossible for the affected industry to comply with the Standard, especially

the section entitled "(g) Respiratory protection" thereof (29 C.F.R. 1910.93q(g)) and that, therefore, unless appropriate relief is granted, a substantial number of vinyl chloride and polyvinyl chloride manufacturers in the United States will have to cease manufacturing and production operations after December 31, 1974. Likewise, many processors, fabricators and others covered by the Standard and requiring respiratory protective equipment will have to cease operations after December 31, 1974.

3. The specific nature of the requirements in the Standard, that is, the fact that every employee in every segment of the industry exposed to concentrations of vinyl chloride in excess of the permissible levels of 1 part per million (ppm) averaged over any eight hour period and 5 ppm averaged over any period not exceeding 15 minutes must be supplied with an appropriate respiratory protective device as set out in the Standard, suggested that insufficient quantities of the prescribed respiratory protective equipment would be available in sufficient time to enable the industry to comply with the requirements of the Standard.

4. Following up on this, by telephone, we contacted individual VCM and PVC industry members covered by the Standard to determine the types and quantities of respiratory protective devices they would have to obtain in order to

comply with the Standard's requirements. The specific figures requested and obtained covered equipment required, whether on order or not, which equipment would have to be obtained and installed or otherwise on hand in order to continue manufacturing operations on and after the effective date of the Standard, January 1, 1975.

5. Similarly, by telephone, we inquired directly of all known suppliers of the respiratory equipment listed in this Standard to ascertain whether these suppliers could, disregarding outstanding and unfilled orders, supply the necessary respiratory protective equipment to the industry by January 1, 1975.

6. Comparing gross available supply with gross demand, we have determined that, even under the best of circumstances and assuming the timely approval of eligible equipment specifically permitted under the Standard, the gross demand is considerably in excess of the supply for the equipment required.

7. The specifics of the supply and demand situations, as very conservatively projected from the data gathered, are as follows: 1/

1/ The information in this survey was gathered by Counsel on a company confidential reporting basis so as to avoid any possibility of adverse antitrust considerations. Therefore, the detailed background data, affidavits and the like are not being made available herewith, it being assumed that the data and information reported herein can be easily verified by the Department of Labor and the Occupational Safety and Health Administration.

(a) For atmospheric concentrations of vinyl chloride that are unknown or above 3,600 ppm, the demand of the vinyl chloride monomer and polyvinyl chloride resin manufacturers is for 429 of the prescribed units with 1,072 air bottles. Current available supply is 3,325 units and 6,000 refills. The lag time for supply of additional units is in the range of 30 to 60 months.

(b) For vinyl chloride concentrations not in excess of 3,600 ppm, there is a total demand of 3,186 complete units. The suppliers indicate that neither of the devices specified is available. As to the combination type C supplied air respiratory, pressure demand type, only a prototype model exists as of this time but it has not been approved by NIOSH and, even if it were, no estimates could be obtained as to when this device would be commercially available. As to the type C, supplied air respirator continuous flow type, the suppliers of this equipment have informed us that NIOSH has refused to authorize the currently available equipment for use by this industry because the continuous air flow rate is insufficient.

(c) For vinyl chloride concentrations not in excess of 100 ppm, the demand is for 614 devices of any permitted type. The suppliers report that this demand cannot be met. The demand type supplied air respirator supply picture is the same as that reported in subparagraph (b) above for the pressure demand type supplied air respirators. The same is true of the open circuit self-contained breathing apparatus discussed in subparagraph (a) above except that these devices permitted for less than 100 ppm are demand type rather than pressure demand type. One supplier informed us that an unknown quantity of demand type self-contained devices would become available at some unspecified time during the first half of 1975. As to the demand type supplied air respirators, commercially available devices of this nature are not currently NIOSH approved. However, if approval could be expeditiously obtained, approximately 500 units could be supplied by the first of the year with a lead time of eight months from the time of NIOSH approval and the filing of purchase orders for additional units.

(d) For vinyl chloride concentrations not in excess of 25 ppm, demand for either unit permitted is 5,478 units with 108,397 refills. The suppliers report that the powered air purifying respirator with hood does not exist. Canister gas masks, not yet approved by NIOSH, are available. Approximately 3,000 units and an unknown number of replacement canisters are currently available with a potential canister replacement production of 30,000 units per month beginning after January 1, 1975.

(e) For vinyl chloride concentrations not in excess of 10 ppm, the demand for any permitted device is 2,940 units and 556,500 replacement cartridges as appropriate. The supply for the demand type supplied air respirators permitted is the same as reported in subparagraph (c) above. Chemical cartridge type respirators are available but have yet to be NIOSH approved. With NIOSH approval, suppliers indicate that 3,000 units and an unknown quantity of replacement cartridges are currently available and that potential replacement cartridge

manufacture rates after January 1, 1975 are in the range of 200,000 units per month.

From the foregoing it is obvious that the demand for respiratory protective devices exceeds both current available supply and the supply were all NIOSH approvals granted. The industry requires approximately 12,650 respiratory protective devices on hand and operable by January 1, 1975 since a major portion of the respiratory protective devices on hand in industry are not of the type permitted in the new Standard and the Standard's very low permissible exposure limits combined with the very broad definition of regulated area has caused an expansion in the number of personnel who must be supplied with respiratory protective equipment. Other regulations and guidelines, both federal and state, will further increase the already high demand.

The available supply of respirators of all types is low because NIOSH approvals for certain types of equipment are lacking or have been withdrawn. Additionally, since the specific requirements of the Standard were not known until October 4, 1974, suppliers have not yet had an opportunity to plan and begin production of the appropriate equipment. In any case, total available supply at this time is 3,325 units. With NIOSH approval of all permitted systems listed

in the Standard available supply would still only be 9,825 units.

In short, the current available supply is only 26% of current demand with optimum supply (expeditious NIOSH approvals) being only 78% of current demand. Without appropriate NIOSH approvals the industry is a minimum of 22% and a maximum of 74% short of the respiratory protective devices mandated by the Standard.

These figures have been developed solely from the demand existing in the vinyl chloride monomer and polyvinyl chloride resin segments of the industry. The potential of additional demand being created by processors, fabricators and other elements of the industry could not be calculated and factored in to this survey. Nonetheless, it is patently obvious that any increase in demand from other segments of the industry will enlarge the gap between supply and demand.

In light of the foregoing facts we have concluded that, because the supply for respiratory protective devices is so short, there is no likelihood that, even given NIOSH approvals and the most equitable apportionment of the available supply, all the closely interrelated and interdependent segments of this industry could legally continue manufacturing operations after December 31, 1974. An interruption in the

manufacturing abilities of raw materials suppliers, or the semi-finished products consumers and suppliers would have such a significant impact on the other elements of the industry that no portion of the industry, even if it were itself able to meet all requirements of the Standard, could continue in operation because either the raw materials supply or the markets would cease to function.

Jerome H. Heckman
General Counsel
The Society of the Plastics
Industry, Inc.

Keller and Heckman
1150 17th Street, N.W.
Suite 1000
Washington, D. C. 20036
Telephone: (202) 296-2700

Subscribed and sworn to before me this 5th day of November, 1974.

Notary Public

My Commission Expires Feb. 14, 1976

Seal:

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

TO : Director, Office of Standards
Occupational Safety and Health
Administration, DOL

DATE: October 21, 1974

FROM : Acting Director, NIOSH

SUBJECT: Vinyl Chloride Respirator Usage

NIOSH has reviewed the Occupational Safety and Health Standard for Exposure to Vinyl Chloride which appeared in the October 4, 1974, Federal Register (39 FR 35890). Particularly noted were those sections dealing with respirator usage, which allowed the use of air-purifying respirators under certain circumstances.

Unfortunately, as indicated in the enclosed memorandum, no respirators of a cannister or cartridge type that will protect the worker in non-emergency operations is currently available or likely to be this year.

Therefore, the NIOSH stand for protection in non-emergency situations must remain as stated in the Recommended Standard transmitted to OSHA on March 11, 1974:

> "Until exposures to vinyl chloride are reduced below detectable levels, employees entering any regulated area shall be provided with and required to wear and use a full-face, supplied air respirator, of the continuous flow or pressure demand type in accordance with 1910.134."

Edward J. Baier

Enclosure

RECEIVED
OCT 23 1974
NIOSH - REGION III

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

TO : Edward J. Baier
Acting Director, NIOSH

DATE: October 18, 1974

FROM : Acting Director, Office of Research
and Standards Development

SUBJECT: Respirator Use Recommendations for Vinyl Chloride

The current NIOSH respiratory protection recommendations, as expressed in the Recommended Standard for Occupational Exposure to Vinyl Chloride, calls for use of positive-pressure supplied air respirators where there is detectable exposure to vinyl chloride.

In preparing for the above recommendation, the NIOSH Engineering Branch in Cincinnati tested organic vapor canisters and cartridges for effectiveness against vinyl chloride. An Evaluation of Organic Vapor Respirator Cartridges and Canisters Against Vinyl Chloride, by David L. Smith and William S. Giesler (NIOSH Publication No. 75-111) describes these tests and supports the above recommendations.

On September 19, 1974, Mr. Grover Wrenn of OSHA, met with Messrs. Lynch, Gudeman, and Bryant of NIOSH, to discuss respiratory protection against vinyl chloride. Mr. Wrenn indicated then that OSHA was determined to permit use of powered air-purifying respirators and gas masks for vinyl chloride respiratory protection for routine and non-routine use, respectively.

OSHA, subsequently, revised these proposed use requirements and the Occupational Safety and Health Standard for Exposure to Vinyl Chloride which appeared in the October 4, 1974, Federal Register (39 FR 35890), contained the following general requirements:

1. Respirator use is voluntary.

2. MESA/NIOSH - approved respirators shall be used.

3. A respirator program shall be established and maintained.

4. The following respirators may be used.

Over 3,600 ppm Not over 3,600 ppm	positive pressure SCBA supplied air respirators (positive pressure)
Not over 100 ppm Not over 25 ppm	supplied air respirators powered air purifying respirator gas mask (4 hours service life up to 25 ppm)
Not over 10 ppm	chemical cartridge respirator (1 hour service life up to 10 ppm)

The above respirator use requirements in item 4 are based on expected performance criteria that would reduce the vinyl chloride concentration in the wearer's breathing to acceptable levels.

No canister or cartridge masks are currently available which meet NIOSH requirements nor are any expected to be approved during this year.

Consequently, the original recommendation by NIOSH is to be reiterated, i.e. employees entering any regulated area shall be provided with and required to wear and use a full-face, supplied air respirator, of the continuous flow or pressure, demand type in accordance with 1910.134.

In response to this publication, the NIOSH Engineering Branch has prepared test requirements for, and TCL is preparing to approve, canisters and cartridges meeting the following general performance requirements:

Device	Test Concentration, ppm Vinyl Chloride	Service life, hours
Canister	25	6
Air-purifying cartridge	10	2
Powered air-purifying cartridge	25	6

Each type of device shall be equipped with an end-of-service life indicator. The approved devices would bear labels requiring careful fitting to the respirator wearer and strict quality control of sorbent materials which would be required.

Herbert E. Christensen, D.Sc.

Attachment