



A Division of The Society of The Plastics Industry, Inc.

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JUL 17 1990

Sherry M. Con.

July 16, 1990

TO: Health, Safety & Environment/Legal Committees

Enclosed are the following:

1. A copy of the final rule with regard to revisions to the NESHAP for vinyl chloride as published July 10th.
2. "Secretary of Labor vs. American Cyanamid" sent to me by Frank Borrelli, who believes this may be of interest to those attending the July 31st meeting on MSDS's and labels.

Sincerely yours,

Meredith N. Scheck
Assistant Director

MNS/pmb

CTL029923

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July 11, 1990

REC'D JUL 16 1990

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Roy T. Gottesman, Ph.D.
The Vinyl Institute
Wayne Interchange Plaza II
155 Route 46 West
Wayne, New Jersey 07470

Re: EPA Final Rule; Revisions to Vinyl
Chloride Standard

Dear Roy:

Enclosed for distribution to the Health, Safety and Environment Committee and the Legal Committee is a copy of the U.S. Environmental Protection Agency's ("EPA") final rule with regard to the National Emission Standards for Hazardous Air Pollutants ("NESHAP"); Revisions to Vinyl Chloride; and Equipment Leaks of Volatile Hazardous Air Pollutants. 55 Fed. Reg. 28346, July 10, 1990.

The enclosed notice promulgates the revisions we negotiated with EPA in response to the 1986 amendments to the standard. The revisions are identical to those proposed on September 21, 1989. As such, our final task will be to dismiss the pending litigation in a joint motion with the Justice Department.

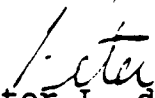
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Roy T. Gottesman, Ph.D.
July 11, 1990
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KELLER AND HECKMAN

If you have any questions or if we can be of further assistance, please do not hesitate to contact us.

Cordially yours,


Peter L. de la Cruz

cc: Robert D. Luss, Esq.
Larry Thomas
Frank Borrelli
Robert W. Sherman
H. Patrick Toner

CTL029925

Tuesday
July 10, 1990

Part II

**Environmental
Protection Agency**

40 CFR Part 61

**National Emission Standards for
Hazardous Air Pollutants; Revisions to
Vinyl Chloride; Equipment Leaks of
Volatile Hazardous Air Pollutants; Final
Rule**

CTL029926

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 61

(FR-3752-3)

National Emission Standards for Hazardous Air Pollutants; Revisions to Vinyl Chloride; Equipment Leaks of Volatile Hazardous Air Pollutants

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: On September 21, 1989 (54 FR 38938), EPA proposed minor revisions to national emission standards for vinyl chloride (VC) and equipment leaks of volatile hazardous air pollutants. The revisions to the national emission standards for hazardous air pollutants (NESHAP) were proposed as a result of petitions for reconsideration and review filed by the Society of the Plastics Industry, Inc. (SPI), Dow Chemical Company, Georgia Gulf Corporation, and Vista Chemical Company. This action promulgates final revisions to the NESHAP. The intended effect of this action is to grant the petitioners' request for clarification of ambiguities in several definitions and in the applicability of certain regulatory requirements in the standards.

This notice is not intended to address the July 28, 1987, decision by the D.C. Circuit Court on the VC standards, *Natural Resources Defense Council, Inc. v. EPA*, 824 F.2d 1146 (1987). Any response to that decision will be made in a future notice in the Federal Register.

DATES: *Effective Date:* July 10, 1990.

Judicial Review. Under section 307(b)(1) of the Clean Air Act, judicial review of NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit on or before September 10, 1990. Under section 307(b)(2) of the Clean Air Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

ADDRESSES: *Docket.* A docket, number A-81-21, containing information considered by EPA in the development of the promulgated standards and the petitions for reconsideration, to which this notice is responding, is available for public inspection between 8:30 a.m. and 3:30 p.m., Monday through Friday, at EPA's Air Docket Section (LE-131), Room M1500, First Floor, 401 M Street, N.W., Washington, DC 20460. A

reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT:

For further information and interpretations of applicability, compliance requirements, and reporting aspects of the revised standards, contact the appropriate Regional, State, or local office contact as listed in 40 CFR 60.4. For further information on the background for the final revised standards, contact Ms. Shirley Tabler, Standards Development Branch, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone, (919) 541-5256.

SUPPLEMENTARY INFORMATION:

I. Background

In December, 1975, EPA designated VC as a hazardous air pollutant under section 112 of the Clean Air Act (42 U.S.C. 7412) and promulgated final rules for VC on October 21, 1976 (40 CFR 61.60-61.71). The standards limit emissions of VC from plants producing ethylene dichloride (EDC) via oxychlorination, VC, and polyvinyl chloride (PVC) or other polymers containing VC. These plants are subject to a combination of emission limits, equipment, and work practice requirements at numerous points in the manufacturing processes.

On September 30, 1986 (51 FR 34904), EPA promulgated several administrative and clarifying revisions to the national emission standard for VC. Subsequently, on November 26, 1986, SPI filed with EPA a petition for stay and administrative reconsideration of seven provisions in the final revisions to the VC standard. The SPI, Dow Chemical Company, Georgia Gulf Corporation, and Vista Chemical Company concurrently filed a petition for review of several provisions of the revised standard with the U.S. Court of Appeals for the D.C. Circuit. The petitioners asserted that without adequate notice, EPA's 1986 revisions changed key provisions of the VC standard in a manner that: (1) violated case law, (2) imposed new penalties; (3) created multiple penalties for the same event, and (4) expanded the types of equipment subject to the standard.

In summary, the petitioners requested review of the definitions of "exhaust gas," "relief valve discharge," "leak," "3-hour period," and "ethylene dichloride purification"; the scope of the relief valve discharge provisions and the leak detection and elimination provisions (area monitoring). The SPI also requested that EPA issue a stay of the 1986 revisions to the VC standard

pending review of those revised provisions.

The revisions proposed on September 21, 1989, were in regard to clarifications to the definitions. No changes, however, were made with regard to fixed area monitoring requirements or the relief valve discharge standard. In the 1989 proposal preamble, EPA also denied the petitioner's request for a stay of the 1986 revised provisions. A detailed discussion of the issues presented in the petitions for review and EPA's response to the issues is contained in the preamble for the proposed revisions (54 FR 38936-38942).

II. Public Participation

The proposed revisions to the NESHAP were published in the Federal Register on September 21, 1989 (54 FR 38938). A public hearing was scheduled on October 18, 1989. However, there were no requests for a hearing. The public comment period lasted from September 21, 1989 to November 20, 1989. Two comment letters were received from the industry, both of which had filed petitions for review of the 1986 revisions. Both commenters expressed their support of the proposed revised provisions of September 21, 1989, and stated that the revised provisions respond to the concerns filed in their petitions for review. The commenters did not request any additional changes to the NESHAP.

III. The Promulgated Revisions

The clarifying revisions being promulgated today are identical to those proposed on September 21, 1989. The following is a summary of the promulgated revisions.

A. The definition of "exhaust gas" has been modified by adding two sentences which clarify that a leak is not an exhaust gas, and that equipment containing exhaust gas must comply with the leak detection and prevention provisions (§ 61.65(b)(8)), whether or not that equipment contains 10 percent by volume VC. This addition assures that leaks from exhaust gas streams are subject to the leak detection and elimination requirements, but that such leaks will not also be classified as "exhaust gas."

B. Minor revisions were made to the definition of "relief valve discharge" and to the relief valve discharge (RVD) provisions (§ 61.65(a)) to clarify that an RVD routed to a properly designed and operated control device would be exempted from the provisions of the RVD standard. This change prevents misinterpretation of the regulatory

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requirements and imposition of a double penalty.

In addition, new provisions (§ 61.65(d)) have been added for an RVD that is ducted to a control device that is continually operating while emissions from the release are present at the device. An RVD that is ducted to a control device, other than a flare, would be subject to the 10 ppm limit and the continuous emission monitoring system requirement contained in § 61.68 and to the reporting requirements of § 61.70. In the case of flares, emission monitoring is not possible. Therefore, for RVD's routed to a flare, the design requirements for flares (40 CFR 60.18) would apply. The EPA recognizes that measurement of relief valve discharge volumetric flow rates and gas stream composition is not possible using the methods set forth in § 60.18 (f)(3) and (f)(4). Estimates of these parameters will, therefore, need to be based on empirical or other bases, subject to EPA approval. Flare operations would be monitored in accordance with the requirements of §§ 60.18(d) and 60.18(f)(2). For the purpose of § 60.18(d), the volume and component concentration of each RVD would be estimated and calculations would be made to verify ongoing compliance with the design and operating requirements of § 60.18 (c)(3) through (c)(6). If more than one relief valve is discharged simultaneously to a single flare, these calculations would account for the cumulative effect on all such RVD's. If the results of the monitoring contained in § 60.18(f)(2) or any other information show that the pilot flame is not present 100 percent of the time during which an RVD is routed to a flare, the RVD is subject to the provisions of § 61.65(a). A report describing the flare design must be provided to the Administrator not later than 90 days after the adoption of this provision or within 30 days of the installation of a flare system for control of RVD's, whichever is later.

C. The standards for pumps in VC service (§ 61.242-2(d)) were revised to clarify the requirements for pump seal drips. Section 61.242-2(d)(4) addresses drips from pump seals that contain VC, and § 61.242-2(d)(6) addresses drips from pump seals that do not contain VC.

The final revised provisions of § 61.242-2(d) are designed to accomplish two purposes. One is to ensure that VC leaks from pump seals are detected and eliminated. This is accomplished by paragraphs (d)(4) (i), (ii), and (iii). The other purpose is to identify and prevent pump seal failures by causing abnormal dripping (even when VC is not contained in the dripping liquid) to be

detected and repairs to be made. This is accomplished by paragraphs (d)(6) (i), (iii), and (iv). These paragraphs require the facility owner or operator to establish criteria associated with normal operation.

The intent of the final provisions is identical to the existing provision. The difference is that the promulgated provisions of § 61.242-2(d)(6)(i) allow an owner or operator to take into account the small number of liquid drips that may occur when new seals are in place or are otherwise associated with normal operation.

D. The definition of "3-hour period" has been revised to ensure that a single event of 1-hour or less at 10 ppm or greater could result in no more than a single violation of the exhaust gas standard. A phrase has been added to the definition of "3-hour period" in § 61.51(z) to accomplish this. The EPA did not intend to penalize a plant three times whenever a 10 ppm event occurs within 1 hour. Rather, EPA wanted to ensure that a combination of two or more 10 ppm events which would result in a 3-hour exceedance do not go unpenalized just because they occurred over two separate 3-hour "blocks." The promulgated revised definition of "3-hour period" satisfies EPA's intent without unintentionally subjecting a plant owner or operator to multiple violations.

E. The definition of "EDC purification" has been revised to clarify that emissions from crude, intermediate, and final storage tanks following EDC formation are not subject to the exhaust gas standard. (The 1986 revisions exempted only final storage tanks.) In addition, § 61.65(b)(6). Opening of equipment, has also been revised to clarify that the requirements in this section do not apply to crude, intermediate, or final EDC storage tanks. As stated in the proposal preamble, the regulation of these storage tanks is unnecessary because emissions are extremely low.

F. In addition to the changes made in response to the petitions for reconsideration, a minor clarification has been made in § 61.68, Emission monitoring. Since it is obvious that paragraph (a) of § 61.68 calls for the monitoring of the emissions from prescribed sources for vinyl chloride and not ambient air sampling as required under § 61.65(b)(8) for leak detection/elimination, § 61.68(b) has been clarified to require that representative (not air) samples from one or more applicable emission points be obtained and analyzed. This

promulgated revision more accurately reflects the original intent.

IV. Administrative Requirements

A. Docket

The docket is an organized and complete file of all the information submitted to or otherwise considered by EPA in the development of this rulemaking. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated revisions, and EPA responses to significant comments, the contents of the docket, except for interagency review materials, will serve as the record in case of judicial review (sec. 307(d)(7)(A)).

B. Paperwork Reduction Act

There are no additional information collection requirements associated with this rulemaking.

C. Executive Order 12291

Under Executive Order 12291, EPA must judge whether a regulatory action is "major" and, therefore, subject to the requirement of a regulatory impact analysis. This final rulemaking is not major because it makes minor clarifying revisions to an existing regulation and, therefore, results in none of the significant adverse economic effects described in the Order.

This rulemaking was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12291. Any written comments from OMB to EPA and any EPA response to those comments are included in Docket No. A-81-21. The docket is available for public inspection at EPA's Air Docket Section that is listed under the ADDRESSES section of this notice.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires the identification of potentially adverse impacts of Federal regulations upon small business entities. The Act specifically requires the completion of a Regulatory Flexibility Analysis in those instances where small business impacts are possible. Because these minor revisions impose no adverse economic impacts, a Regulatory Flexibility Analysis has not been conducted.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that the final rule will not have a significant economic

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impact on a substantial number of small entities.

Table of Subjects in 40 CFR Part 61

Air pollution control, Asbestos, Benzene, Beryllium, Coke oven emissions, Hazardous substances, Incorporations by reference, Inorganic arsenic, Intergovernmental relations, Mercury, Radionuclides, Reporting and recordkeeping requirements, Vinyl chloride, Volatile hazardous air pollutants.

Dated: July 3, 1990.

William K. Reilly,

Administrator.

For the reasons set forth in the preamble, 40 CFR part 61 is amended as follows:

PART 61—[AMENDED]

1. The authority citation for part 61 continues to read as follows:

Authority: Secs. 101, 112, 114, 116, 301, Clean Air Act as amended (42 U.S.C. 7401, 7412, 7414, 7415, 7601).

2. Section 61.61 is amended by revising paragraphs (o), (w), (x), (y), and (z) to read as follows:

§ 61.61 Definitions.

(c) *Ethylene dichloride purification* includes any part of the process of ethylene dichloride purification following ethylene dichloride formation, but excludes crude, intermediate, and final ethylene dichloride storage tanks.

(w) *Leak* means any of several events that indicate interruption of confinement of vinyl chloride within process equipment. Leaks include events regulated under subpart V of this part such as:

(1) An instrument reading of 10,000 ppm or greater measured according to Method 21 (see appendix A of 40 CFR part 60);

(2) A sensor detection of failure of a seal system, failure of a barrier fluid system, or both;

(3) Detectable emissions as indicated by an instrument reading of greater than 500 ppm above background for equipment designated for no detectable emissions measured according to Test Method 21 (see appendix A of 40 CFR part 60); and

(4) In the case of pump seals regulated under § 61.242-2, indications of liquid dripping constituting a leak under § 61.242-2.

Leaks also include events regulated under § 61.65(b)(3)(i) for detection of ambient concentrations in excess of

background concentrations. A relief valve discharge is not a leak.

(x) *Exhaust gas* means any offgas (the constituents of which may consist of any fluids, either as a liquid and/or gas) discharged directly or ultimately to the atmosphere that was initially contained in or was in direct contact with the equipment for which gas limits are prescribed in §§ 61.62(a) and (b); 61.63(a); 61.64 (a)(1), (b), (c), and (d); 61.65 (b)(1)(i), (b)(2), (b)(3), (b)(5), (b)(6)(ii), (b)(7), and (b)(9)(i); and 61.65(d). A leak as defined in paragraph (w) of this section is not an exhaust gas. Equipment which contains exhaust gas is subject to § 61.65(b)(8), whether or not that equipment contains 10 percent by volume vinyl chloride.

(y) *Relief valve discharge* means any nonleak discharge through a relief valve.

(z) *3-hour period* means any three consecutive 1-hour periods (each commencing on the hour), provided that the number of 3-hour periods during which the vinyl chloride concentration exceeds 10 ppm does not exceed the number of 1-hour periods during which the vinyl chloride concentration exceeds 10 ppm.

3. Section 61.65 is amended by revising paragraphs (a) and (b)(6) introductory text, and adding paragraph (d) to read as follows:

§ 61.65 Emission standard for ethylene dichloride, vinyl chloride and polyvinyl chloride plants.

(a) *Relief valve discharge*. Except for an emergency relief discharge, and except as provided in § 61.65(d), there is to be no discharge to the atmosphere from any relief valve on any equipment in vinyl chloride service. An emergency relief discharge means a discharge which could not have been avoided by taking measures to prevent the discharge. Within 10 days of any relief valve discharge, except for those subject to § 61.65(d), the owner or operator of the source from which the relief valve discharge occurs shall submit to the Administrator a report in writing containing information on the source, nature and cause of the discharge, the date and time of the discharge, the approximate total vinyl chloride loss during the discharge, the method used for determining the vinyl chloride loss (the calculation of the vinyl chloride loss), the action that was taken to prevent the discharge, and measures adopted to prevent future discharges.

(b)
(6) *Opening of equipment*. Vinyl chloride emissions from opening of equipment (excluding crude, intermediate, and final EDC storage

tanks, but including prepolymerization reactors used in the manufacture of bulk resins and loading or unloading lines that are not opened to the atmosphere after each loading or unloading operation) are to be minimized follows

(d) A RVD that is ducted to a control device that is continually operating while emissions from the release are present at the device is subject to the following requirements:

(1) A discharge from a control device other than a flare shall not exceed 10 ppm (average over a 3-hour period) as determined by the continuous emission monitor system required under § 61.68. Such a discharge is subject to the requirements of § 61.70.

(2) For a discharge routed to a flare, the flare shall comply with the requirements of § 60.18.

(i) Flare operations shall be monitored in accordance with the requirements of §§ 60.18(d) and 60.18(f)(2). For the purposes of § 60.18(d), the volume and component concentration of each relief valve discharge shall be estimated and calculation shall be made to verify ongoing compliance with the design and operating requirements of §§ 60.18 (c)(3) through (c)(6). If more than one relief valve is discharged simultaneously to a single flare, these calculations shall account for the cumulative effect of all such relief valve discharges. These calculations shall be made and reported quarterly for all discharges within the quarter. Failure to comply with any of the requirements of this paragraph will be a violation of § 61.65(d)(2). Monitoring for the presence of a flare pilot flame shall be conducted in accordance with § 60.18(f)(2). If the results of this monitoring or any other information shows that the pilot flame is not present 100 percent of the time during which a relief valve discharge is routed to the flare, the relief valve discharge is subject to the provisions of § 61.65(a).

(ii) A report describing the flare design shall be provided to the Administrator not later than 90 days after the adoption of this provision or within 30 days of the installation of a flare system for control of relief valve discharge whichever is later. The flare design report shall include calculations based upon expected relief valve discharge component concentrations and net heating values (for PVC this calculation shall be based on values expected if a release occurred at the instant the polymerization starts); and estimated maximum exit velocities based upon the design throat capacity of the gas in the relief valve

4. Section 61.68 is amended by revising the first sentence in paragraph (b) to read as follows:

§ 61.68 Emission monitoring.

(b) The vinyl chloride monitoring system(s) used to meet the requirement in paragraph (a) of this section is to be a device which obtains representative samples from one or more applicable emission points on a continuous sequential basis and analyzes the samples with gas chromatography or, if the owner or operator assumes that all hydrocarbons measured are vinyl chloride, with infrared spectrophotometry, flame ion detection, or an alternative method. . . .

5. Section 61.242-2 of subpart V is amended by revising paragraphs (d) introductory text, (d)(5), and (d)(6), and by adding paragraphs (d)(4) (i), (ii) and (iii) to read as follows:

§ 61.242-2 Standards: Pumps.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraphs (a) and (b) of this section, provided the following requirements are met:

(4) . . .

(i) If there are indications of liquid dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in § 61.245 to determine the presence of VOC and VHAP in the barrier fluid.

(ii) If the monitor reading (taking into account any background readings) indicates the presence of VHAP, a leak is detected. For the purpose of this paragraph, the monitor may be calibrated with VHAP, or may employ a gas chromatography column to limit the response of the monitor to VHAP, at the option of the owner or operator.

(iii) If an instrument reading of 10,000 ppm or greater (total VOC) is measured, a leak is detected.

(5) Each sensor as described in paragraph (d)(3) of this section is

checked daily or is equipped with an audible alarm.

(6)(i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.

(ii) If indications of liquids dripping from the pump seal exceed the criteria established in paragraph (d)(6)(i) of this section, or if, based on the criteria established in paragraph (d)(6)(i) of this section, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

(iii) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in § 61.242-10.

(iv) A first attempt at repair shall be made no later than five calendar days after each leak is detected.

[FR Doc. 90-16015 Filed 7-9-90; 8:45 am]

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CTL029930

SECRETARY OF LABOR vs. AMERICAN CYANAMID
OSHRC Dock t No. 86-681

SUMMARY

REC'D JUL 16 1990

I. FACTS

American Cyanamid's Perrysburg, Ohio, plant which produces resins and molding compounds was inspected by a Occupational Safety and Health Administration (OSHA) Compliance Officer on December 6, 1985. As a result of the inspection, American Cyanamid was cited for the following alleged violations of the Hazard Communication Standard (HCS), 29 C.F.R. § 1910.1200:

- (A.) Failure to provide "appropriate hazard warnings" on its product labels for XC-4005 resin, Glaskyd, XC-4001 resin, XC-4011 resin, Cyglas and Fibercore.
 - (1) Product label for Fibercore did not identify the hazardous chemicals in the compound.
 - (2) (a) Product labels for XC-4005 resin, Glaskyd, XC-4001 resin, XC-4011 resin and Cyglas did not identify the effects of inhalation overexposure, target organs were not identified; and
(b) The label for Fibercore listed no hazard warnings.
 - (3) Product labels did not include the manufacturer's zip code as part of the complete address.
- (B) Failure to provide specific health hazards and short term exposure limits (STELs) on the material safety data sheets (MSDSs).
 - (1) (a) The MSDS for Glaskyd did not identify the specific health hazards for overexposures to talc, antimony and amorphous silica including signs and symptoms of overexposure and any medical conditions which are generally recognized as being aggravated by exposure to these chemicals.
(b) The MSDS for XC-4011 resin identified the health hazards for 2-ethoxyethanol, but

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the components of this product were listed as 2-Butoxy ethanol and n-Butyl alcohol.

- (2) The MSDSs for Fibercore, Glaskyd and Cyglas did not list eye and skin exposure as potential routes of entry.
- (3) (a) The MSDS for Fibercore listed the OSHA PEL for styrene as 100 mg/M³ instead of 100 ppm; it did not list the OSHA ceiling and peak concentrations or the ACGIH STEL for vinyl toluene.

(b) The MSDS for Glaskyd listed the OSHA PEL for silica as 80mg/M³ instead of 80 mg/M³/‰ Si O₂, and did not list the ACGIH TLV for amorphous silica or talc (unless talc is fibrous in which case the asbestos standard would apply).

(c) The MSDS for XC-4001 resin did not list the ACGIH STEL for propylene glycol methyl ether.

(d) The MSDS for XC-4011 resin did not list the ACGIH ceiling for butyl alcohol.

(e) The MSDS for Cyglas did not list the ACGIH STEL for vinyl toluene and listed the OSHA PEL for silica as 80 mg/M³ instead of 80 mg/M³/‰ Si O₂.

(f) The MSDS for Fibercore did not contain the date the document was prepared.

Cyanamid contested the citation and a hearing was held in early 1987 before Administrative Law Judge Salyers.

II. ISSUES AND TESTIMONY

OSHA testified that Cyanamid's MSDS for XC-4001 resin stated that "overexposure to butanol and propylene glycol methyl ether may cause eye and respiratory tract irritation, headache, dizziness or nausea." The MSDS for XC-4005 resin identified headache and irritation of the eyes as the effects of inhalation overexposure to butanol vapor. The labels for XC-4001 and XC-4005, however, only contained the following warning information: "Harmful if Inhaled," "Causes Eye Irritation," "May Cause Skin Irritation."

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OSHA contended that this information did not constitute an appropriate hazard warning because it failed to detail the specific target organs that could be affected by overexposure to the hazardous chemicals. In addition, this information allegedly did not inform employees using the chemicals of the effects on the bodily systems that could be caused by overexposure through inhalation. OSHA suggested minor changes to the hazard warning and stated that a warning that exposure "May Cause Eye and Respiratory Tract Irritation, Headache, Dizziness or Nausea" would appropriately convey the target organ effects of overexposure to these products. (Emphasis added). Subsequent to the inspection, Cyanamid revised its MSDS for Fibercore to include a statement that inhalation overexposure to styrene and vinyl toluene may cause eye, nose and throat irritation. However, the container label never provided a hazard warning.

Cyanamid's product label for its Glaskyd molding compound stated that the product is "Harmful if Inhaled." The MSDS stated that the product "contains fibrous materials such as silica which may cause lung fibrosis after chronic overexposure." A revised MSDS stated that inhalation overexposure to its hazardous components, i.e., talc, antimony, oxide and amorphous silica dust "may cause respiratory tract irritation." OSHA contended that the words "May Cause Lung Damage" would provide the specific target organ effects.

With respect to Cyanamid's label for its vinyl toluene based Cyglas molding compound, the label contained the general hazard warning "Harmful if Inhaled." The MSDS stated that "prolonged inhalation of vinyl toluene vapor may cause depression of the central nervous system including headache, dizziness and drowsiness" and that the product contains "silica which may cause lung fibrosis." OSHA contended that an appropriate hazard warning for Cyglas would have stated, "May Cause Lung Damage," "May Cause Irritation of Eyes, Nose, Throat and Skin," "May Cause Drowsiness." OSHA also argued that Cyanamid did not include the applicable ACGIH short-term exposure limits (STELs) on its MSDSs for XC-4001 resin containing propylene glycol methyl ether; Fibercore, containing styrene and vinyl toluene; and Cyglas, containing vinyl toluene.

Cyanamid maintained at trial that its labels were appropriate and that labels need not convey comprehensive information concerning potential hazards. In addition, Cyanamid contended that the target organ effects should only be stated on the MSDS. Specifically, Cyanamid testified that based upon toxicological studies, amorphous silica and talc are not hazardous substances. Additionally, there would be no

exposure to respirable silica or talc under any conditions. Cyanamid's expert stated that there would be no exposure in normal conditions of use or in grinding the material after it had been formed into such articles as distributor caps. Cyanamid argued that for the substances at issue, amorphous silica and talc, the warning "Harmful if Inhaled" is appropriate. Moreover, Cyanamid's expert testified that there is insufficient evidence to establish that overexposure to Cyanamid's Glaskyd and vinyl toluene based Cyglas, which contain a non-asbestos form talc and amorphous silica, may cause lung damage.

With respect to Cyanamid's XC-4001 resin, XC-4005 resin, Fibercore and Cyglas, Cyanamid denied central nervous system depression as a target organ effect to be included on its product labels. Cyanamid testified that styrene and vinyl toluene do not cause permanent damage to the central nervous system but rather slow down the function of nerve cells which is reversible upon removal from exposure.

III. ALJ'S DECISION

The Administrative Law Judge (ALJ) disagreed with Cyanamid's position that amorphous silica and talc are not hazardous substances. Since Cyanamid admitted that the substances were components of untested mixtures, the Judge ruled that "these mixtures must be considered to present the same hazards as its components." The ALJ's decision, however, did not address Cyanamid's argument that chemicals are exempt from the Standard to the extent that there is no potential for exposure. Rather, the ALJ upheld the citation simply because hazardous chemicals were present in the resins at concentrations higher than the 1 percent threshold level for mixtures, and the resins had not been tested as a whole to determine their potential hazard.

With respect to the key issue in this case, whether labels must reflect target organ effects, the Judge ruled that this is a reasonable interpretation of the HCS. Specifically the Judge stated that "the key requirement is that the label transmit an immediate warning of the hazards of the chemical as it may affect one or more of the target organs".

The ALJ further found Cyanamid in violation of 29 C.F.R. 1910.1200(g)(2)(vi) for failing to specify STELS for styrene and vinyl toluene in its Fibercore product. The Judge stated that "the STEL is essential to a downstream employer who must advise employees of the potential hazards of these products."

IV. REVIEW COMMISSION ISSUES

Cyanamid requested a hearing by the Review Commission, which accepted the case, American Cyanamid Co., No. 87-681, Slip Op. (OSHRC Aug. 5, 1987), for consideration of Eight issues, including:

- (A) Whether the Judge erred in concluding that the HCS applies to hazardous chemicals which are present in the workplace in such a manner that employees are not exposed to them under "normal conditions of use or in a foreseeable emergency."
- (B) Whether the Judge erred in concluding that the HCS requiring "target organ warnings" on shipping container labels, as provided in Instruction CPL 2-2.38, is a reasonable interpretation of the HCS.
- (C) Whether the Judge erred in concluding that the HCS requires the listing of STELS on the MSDS.
- (D) Whether the Judge erred in concluding that a preponderance of evidence established that butanol, vinyl toluene and styrene produced "target organ effects" as termed by Appendix A of the HCS.
- (E) Whether the Judge erred in concluding that there was insufficient evidence to establish that amorphous silica and talc contained in Cyglas and Glaskyd resins are "articles" as defined in the HCS and interpreted in Instruction CPL 2-2.38.
- (F) Whether the Judge erred in concluding that a preponderance of the evidence established that the labes for XC-4001 resin, XC-4005 Resin, Fibercore, Glaskyd and Cyglas did not contain "appropriate hazard warnings" as required by the HCS.
- (G) Whether the Judge erred in concluding that a preponderance of the evidence established that amorphous Silica and talc present the health hazards alleged by the Secretary.

The last issue for consideration focuses on Instruction CPL 2-2.38 and its amendments. Because the Instruction is not the product of Notice and Comment Rulemaking, American Cyanamid argues that the Instruction cannot create obligations not created by the HCS. As such, the Instruction's requirement

that "target organ warnings" be placed on shipping container labels must be created by the HCS itself.

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