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March 14, 1985

BY MESSENGER

Ms. Alice Mayer
Chemical Manufacturers Association
2501 M Street, N.W.
Washington, D.C. 20037

Re: EPA Proposed Amendments to the Vinyl Chloride Standard

Dear Alice:

Comments prepared by the Vinyl Institute, a division of the Society of the Plastics Industry, Inc. (SPI) on amendments proposed by the Environmental Protection Agency (EPA) to the National Emission Standard for Vinyl Chloride are enclosed. I plan on filing the comments on March 15, 1985. If our final comments vary from the enclosed, I will deliver a copy to you promptly. If you have any comments or questions or if I can be of any further assistance, please let me know.

Cordially yours,

Peter

Peter L. de la Cruz

Enclosure

CMA 014597

The Vinyl Institute

March 15, 1985

Central Docket Section (A-130)
Attn: Docket No. A-81-21
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Re: Proposed Amendments to the National Emission Standard for Vinyl Chloride

Dear Sir:

The Vinyl Institute, a Division of the Society of the Plastics Industry*/ is pleased to submit comments on proposed revisions to the National Emission Standard for vinyl chloride,

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*/ SPI, the major national trade association of the plastics industry, is a Corporation organized under the Not-for-Profit Corporation Law of the State of New York. Its 1,600 member companies and individuals and 49 operating units include those who supply raw materials; process or manufacture plastics or plastics products; and engineer or construct molds or similar accessory equipment for the plastics industry. The majority of SPI members are the processors and converters of plastic resins into end products which represent 75% of the dollar volume sale of plastics in this country.

Members of the Vinyl Institute include Air Products & Chemicals, The BFGoodrich Chemical Group, Borden Chemical, Certain-Teed, Dow Chemical U.S.A., Occidental Chemical, PPG Industries, Shell Chemical Co., Tenneco Polymers, and VISTA Chemical. Members of the Vinyl Institute account for approximately 82% of the domestic production of vinyl chloride and 63% of the domestic production of polyvinyl chloride. These comments were prepared by the Institute's Manufacturing Practices Committee.

A Division of
THE SOCIETY OF THE PLASTICS INDUSTRY, INC.
355 LEXINGTON AVENUE • NEW YORK, N.Y. 10017 • (212) 503-0600

40 C.F.R. § 61.60 et seq., published at 50 Fed. Reg. 1,182 (Jan. 9, 1985). We agree that administrative and clarifying revisions to the standard are warranted. We support many of the proposals and believe that they are in agreement with the general findings of the Agency's review study conducted over the past few years in which we have participated.

There are, unfortunately, several apparent printing errors in the Federal Register notice. More importantly, there are unclear and occasionally confusing statements as well. In these comments, we will present our best interpretation of what the Agency intended based on the preamble to the proposal, earlier drafts, and discussions at the August 30, 1984 meeting of the National Air Pollution Control Techniques Advisory Committee (NAPTAC). It is time to resolve the uncertainties that have been a part of this standard for so long and that have drained unnecessarily both Agency and industry resources.

Our mutual past experience with differing interpretations of the standard among various Agency offices, the States, and the regulated industry only reinforces the need for complete agreement and clarity on the intent and meaning of the codified standard by everyone involved. Discussions in the preamble can provide background on the history of a rulemaking and an opportunity for the Environmental Protection Agency (EPA) to express its interpretation of the data in the record. The preamble is not the standard, however, and when the language of the standard conflicts, the standard will prevail subject to interpretation by the courts. Accordingly, where the standard and preamble differ, we suggest new wording to bring the two into closer concordance. Often, the best solution is merely to repeat in the standard the clear language of the preamble.

I.

A. Withdrawing the 1977 Proposed Amendments

We support the Agency's proposal to withdraw the 1977 proposal to amend the vinyl chloride standard. 42 Fed. Reg. 28,154 (1977). Completely aside from the fact that a proposal pending for eight years loses its credibility, there was no need for the 1977 proposal in the first instance. The basic intent of the 1977 proposal was to further reduce emissions in

an effort to eventually reach a zero discharge level. The current notice points out that neither the standard nor the statute contemplate zero discharges. Thus the 1977 proposal was based on an erroneous premise.

Going beyond the question of whether amendments are needed, the threshold question is whether a standard is needed in the first instance. As restated in the preamble (50 Fed. Reg. 1,182), EPA has presumed that industrial emissions of vinyl chloride have been and would continue to be the cause of 11 to 20 deaths per year in the general population, depending on whether one accepts the 1975 estimate of Kusmack and MacGaughy, or the later numbers of Anderson in Risk Analysis 3 277 (1983). In fact, over the last decade none of these hundreds of predicted cases has developed among the five million persons who have lived within five miles of the regulated facilities for up to 40 years. Therefore, the premise for the original standard was equally fallacious, and the Agency has made no effort to confirm or rejustify that premise. Meanwhile, the standard is with us, and we approach this proposal as an opportunity to make the best of the situation as it exists.

We agree with EPA's conclusion that there is no new technology to permit further tightening or extension of the standard, even if it were justifiable. We have been able to comply with the standard but only at a cost of a 10-15% reduction in productivity, a cash outlay to date of almost $900 million, and ongoing costs of over $50 million per year. Vinyl Chloride - A Review of National Emission Standards, at 2-11 (1982) (EPA 450/3-82-003) (TRW Report); The Cost of Clean Air and Water, Report to Congress 1984, Table A5.2.4 (May 1984) (EPA 230/05-84-008) These control efforts have been more effective than originally predicted by the Agency. According to data presented in tables 4-3 and 4-4 of the TRW Report, actual emissions now are only a small percent of those projected for the pre-1976 unregulated industry. Lacking new technology, there can be no justification for seeking further reductions in the technical basis for the standard.

Thus, there are neither statutory, health, nor technological reasons to extend or tighten the standard. Under Executive Order 12291, 46 Fed. Reg. 13,193 (Feb. 19, 1981), as extended recently by Executive Order 12498, 50 Fed. Reg. 1,036 (Jan. 8, 1985), the Agency may not undertake a rulemaking which cannot be justified, and withdrawal of the 1977 proposals is proper.

B. Regulation of Additional Sources

The decision not to extend the standard to additional sources is correct. The current standard has reduced emissions in both covered and many noncovered facilities by over 99%. Other Agency rules have been at least equally effective in reducing the remaining noncovered emissions as the Notice properly concluded. 50 Fed. Reg. 1,186.

Experience in Florida and California demonstrates that emissions of vinyl chloride from landfills frequently are the result of bacterial degradation of chlorinated solvents, and not from the actual placement of vinyl chloride. Thus, regulation of that industry would have no effct on that source. This work is summarized in a report entitled "An Investigation into the Source of Vinyl Chloride Detected at the Preston and Hialeah Water Treatment Plants," Department of Environmental Resources Management, Dade County, Florida, 1983.

The preamble refers to the formation of a Task Force established under Subtitle D of the Resource Conservation and Recovery Act. 50 Fed. Reg. 1,186. The expressed purpose of the Task Force is to assess emissions of vinyl chloride from hazardous waste disposal facilities, municipal landfills, and certain other air emissions sources. The Vinyl Institute stands ready to assist the Task Force and we request that we be kept informed of the Task Force's activities.

C. Reproposal of Work Practices Provisions

We agree that "EPA proposed and promulgated the work practices, equipment, design and operational standards in the current standard before explicit legal authority existed in section 112" of the Clean Air Act. 50 Fed. Reg. 1,191. Industry comments during the 1974-76 rulemaking noted repeatedly that the Agency had no authority under the Clean Air Act, as it then stood, to promulgate work practice rules. That position was supported by the Agency legal staff and the courts. See Memorandum from Walter C. Barber, Director, Office of Air Quality Planning and Standards, to David G. Hawkins, Assistant Administrator for Air, Noise and Radiation, "Reproposal and Promulgation of Asbestos and Vinyl Chloride Workplace Standards" (May 22, 1980); United States v. Ethyl Corporation,

Civil Action No. 83-0120-3 (M.D. La. July 1, 1983), appeal pending, (No. 83-3537) (5th Cir.); Adamo Wrecking Company v. United States, 334 U.S. 275 (1978). This general reproposal also presents the opportunity to correct several problems of interpretation which we discuss below.

D. CERCLA References

We are puzzled by the newly-inserted discussions on the Comprehensive Environmental, Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9757. 50 Fed. Reg. 1,193. Industry has been informed by regional EPA authorities that reporting of releases under CERCLA is not required for vinyl chloride regulated under NESHAPS. That interpretation is reinforced by the proposed definition of leak under section 61.61(w), which would include all "emissions of vinyl chloride not covered by . . ." the current standard. Thus, we do not understand the reference to CERCLA reporting when that statute generally is not relevant to the covered facilities. Additional explanation by EPA is needed before we can make an informed comment.

II.

The remainder of our comments is organized according to the proposed rule.

Section 61.61(o) - Definition of EDC Purification

The proposed definition of "ethylene dichloride purification" is ambiguous and, since it marks a change from the existing definition, could be read to indicate that equipment other than that originally affected may now be subject to r gulation. The Vinyl Institute supplied EPA with data on October 30, 1984 showing that storage tanks present no significant source of vinyl chloride emissions and that the cost to control these emissions would be extravagant. A copy of our submission is attached.

In the preamble, EPA states that the proposed revision was intended only for clarification. No discussion of any

additional equipment to be effected is presented. 50 Fed. Reg. 1,192. Similarly, no mention was made of vinyl chloride monomer emissions from additional equipment or the cost to control these emissions. Id. However, the proposed wording could be read to encompass additional equipment.

EPA has not justified the inclusion of this additional equipment under the proposed definition and the Vinyl Institute believes that no further controls are necessary. The existing definition of ethylene dichloride purification should remain unchanged.

If EPA does adopt new language, the Agency must, due to the ambiguity in the proposal, clearly state which, if any, of the equipment specified in the Agency's July 20, 1984 draft rule is intended to become subject to this regulation. If additional equipment is specified, a thorough justification must then be presented. Lack of justification by EPA can only demonstrate that the change in language is merely administrative and not substantive.

GEO comment

Section 61.61(v) - Definition of Relief Valve

The proposed definition of "relief valve" is still vague and does not adequately provide the "clarification" intended. 50 Fed. Reg. 1,912. Apparently, EPA continues to be concerned that a "loophole" can be found which would allow a safety pressure-relieving device discharging to the atmosphere to fall outside the definition of relief valve. This concern can be properly addressed without being ambiguous by use of the following language:

> "Relief valve" means a pressure relieving device which vents directly to the atmosphere for the purpose of safety when process equipment is over-pressured. "Relief valve" includes pressure relief valves, rupture discs, and manual vent valves. "Relief valve" does not include control devices used to control flow to or bypass flow around an incinerator or other air pollution control device. Also not included in the definition of "relief valve" are pressure control systems such as polymerization

reaction short-stop systems, refrigerated water systems, captive vent systems or other systems used to reduce pressure by means other than venting to the atmosphere.

Note that the current definition of relief valve in section 61.65(a) refers to discharges "to the atmosphere." Proposed section 61.65(a)(1)(iii) also refers to "relief valve discharge to the atmosphere." Thus, we believe that the definition we have proposed is in keeping with EPA's intent.

Section 61.61(w) - Definition of Leak

The proposed definition of leak is confusing and misleading. The preamble (50 Fed. Reg. 1,191) states very clearly that Subpart V defines a leak "as a measured organic concentration equal to or greater than 10,000 parts per million by volume (ppvm) . . ." as measured by Method 21. This definition is properly included in section 61.61(w) as subsection (1) except for the failure to refer to Method 21. However, subsection (4) of the proposed definition also would define a leak as "detectable emissions as indicated by an instrument reading of greater than 500 ppm above background." As worded, this is inconsistent with Subpart V and conflicts with proposed subsection (1). We suggest adding corrective wording to state that the 500 ppm provision applies only to relief valves when not relieving and sealless pumps.*/

In subsection (2), the definition refers to "indications" of leaks. The definition should distinguish clearly between an actual leak of vinyl chloride established by an objective measurement and a mere indication. A leak should be clearly demonstrated and not based upon any presumption. For example, liquid dripping from a pump could be seal fluid and not vinyl chloride. Thus, indications of a leak should not fall

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*/ By "sealless" we refer to pumps contained in one hermetically sealed unit with the pipe interface being the only entry and exit point. These are also known as "canned" pumps. Since all pumps are "sealed" in some fashion, we consider that term ambiguous.

within the definition of leak unless confirmed by an objective measure.

Subsection (3) would define a leak to include "a sensor detection of failure of a seal system." A seal system failure is not necessarily a leak of vinyl chloride to the atmosphere. Proposed section 61.65(b)(3) recognizes this in its discussion of seal leaks "into the pump" or "into the compressor." The wording of subsection (3) is too restrictive and requires modification.

The leak detection and elimination plan used by the VCM/PVC industry differs from Subpart V through the use of a fixed-point monitoring system. We believe that this difference makes the VCM/PVC system better. Readings by fixed-point monitors can indicate when investigatory action should be taken to investigate potential leaks of vinyl chloride. The use of fixed-point monitors together with portable instruments provides very satisfactory protection. Thus, the subjective or ambiguous criteria in subsections (2) and (3) of proposed section 61.61(w) should be deleted.

A clear and unambiguous definition is absolutely essential to ascertain compliance. We recommend the following language to address the concerns expressed above.

> 'Leak' means any one of the events listed below that demonstrates the escape of vinyl chloride to the atmosphere from process equipment: (1) a reading of 10,000 ppm as measured by a portable instrument using Method 21; (2) an instrument reading of 500 ppm or more above background for relief valves when not relieving and sealless pumps; or (3) an additional event defined as a leak in an approved Leak Detection and Elimination Plan. Mere indications of a leak are not a leak unless confirmed by one of the above-definitions. Emissions of vinyl chloride to the atmosphere which are not regulated under § 61.61(a) and (b); § 61.63(a); § 61.64(a), (b), (c), (d), (e), and (f); and § 61.65(a) and (b)(1), (b)(2), (b)(3), (b)(4), (b)(5), (b)(6), (b)(7) and (b)(9) shall be considered a leak. A relief valve discharge is not a leak.

Section 61.61(z) - Definition of "Three-Hour Period"

The proposed definition of "three-hour period" for averaging emissions states that it is a rolling three-hour period beginning on the hour, that is, "any three consecutive one-hour periods (each hour commencing on the hour)." It is our understanding that EPA intends to have 24 three-hour periods each day.

The Agency's proposal to clarify that the emission limits prescribed in sections 61.62(a), 61.63(a), 61.64(b), 61.64(c) and 61.64(d) are considered to be three-hour averages is consistent with the intent of the original regulation as discussed in the preamble. 50 Fed. Reg. 1,192. We support this proposal; however, it does not fully accomplish its intended purpose. By proposing a definition of "three-hour period" that rolls every hour, a single hourly average of greater than 10 ppm could result in 3 three-hour periods wh n the average emission also exceeds 10 ppm. This situation, in effect, negates the intended clarification that a one-hour period was not intended as a criteria for determining compliance with the standard.

To fully implement the intended clarification, we suggest that a statement be added to sections 61.62(a), 61.63(a), 61.64(b), 61.64(c) and 61.64(d) that "any emission in excess of 10 ppm for a one-hour period cannot cause more than one 3-hour period to be considered in excess of 10 ppm."

In addition, several other sections of the regulation specifying a 10 ppm limit should be clarified by indicating that a three-hour averaging period is intended. These are: § 61.65(b)(5), § 61.65(b)(7), and § 61.65(b)(9). The limit for oxychlorination vents specified in section 61.62(b) (0.2 g/kg) should also be expressed as a three-hour average.

Section 61.64(e)

A typographical error appears in this provision that can be corrected by replacing the word "is" with the word "if" as indicated below.

Sources following the stripper(s). The following requirements apply to emissions of vinyl chloride to the atmosphere from the combination of all sources following this stripper(s) [or the reactor(s) if the plant has no stripper(s)] in the plant process flow. . . .

Section 61.64(f)(1)(i)

A typographical error appears in this section. The reference to "202 g/kg" should be changed to "2.02 g/kg."

Section 61.65(a)(1) - (iii) - Rounding Procedure

The preamble to the proposed rules has a lengthy discussion of relief valve discharges and the rationale for the numerical limits. 50 Fed. Reg. 1,185-1,189. In this discussion EPA notes that a PVC plant making fewer than 2,858 batches/12 month period and having only one discharge could be in violation of the proposed standard, that is, the discharge frequency per 100 batches would exceed 0.035. The Agency proposed to correct this inequity by permitting the plant to use 2,858 batches as the lowest number to determine compliance. We agree with this concept, but we fail to see why this same concept cannot apply to a plant that makes fewer than 5,716 batches but more than 2,858 batches and has had two discharges, or the case where one plant has made fewer than 8,574 batches, but more than 5,716 batches and has had three discharges, and so on, up to the four-discharge maximum permitted.

The EPA method for determining compliance does not consider that business conditions alone determine how many batches a plant makes, and, consequently, a plant should not be penalized because it has fallen slightly short of the exact number of batches needed to qualify for the next integer of permitted discharges.

We recommend that the method for determining compliance with the relief valve discharge standard be modified to allow rounding off to the next highest integer for the number of permissible discharges if this calculated number of discharges is

precisely greater than 1.5, 2.5, or 3.5. Thus, a plant producing at least 4,311 batches and less than 5,717 batches would be allowed a maximum of 2 relief valve discharges. Similarly, a plant producing at least 7,169 batches and less than 8,575 batches would be allowed 3 relief valve discharges and finally a plant producing at least 10,026 batches would be allowed 4 relief valve discharges.

This modification in no way compromises the basic intent of the proposed standard, and it permits the regulated community to meet a standard that is based on a real world situation. Moreover, data from a two-year period was used to develop the permissible yearly discharges. Plants can only be expected to meet this statistical annual average over a two year period. Thus, the rounding we suggest is further supported by the record.

Section 61.65(a)(1)(i) - Reactor Relief Valve Discharges

We recommend that the language describing discharges from reactor relief valves be modified as follows: "The number of discharges directly to the atmosphere from relief valves on polyvinyl chloride reactors . . . ." The inclusion of the word "directly" will indicate that discharges from relief valves that are routed to control devices will not be considered discharges because there is no violative release of vinyl chloride to the atmosphere. This addition will clarify any confusion resulting from the the new definition of "relief valve" in section 61.61(v). In addition, it signifies the Agency's policy of encouraging the routing of discharges, when technologically and economically feasible, to control devices.

Section 61.65~~(a)~~(1)(iii)

We believe that some typographical errors appear in this provision. The language should be amended to read:

> The limits specified in paragraphs (a)(1)(i) and (a)(1)(ii) of this section are not exceeded when only one relief valve discharge to the atmosphere occurs during the 12-month period

preceding the close of the 6-month reporting period.

We believe that this language correctly states the intention of the Agency relative to relief valve discharges. We note that the Agency has accepted our comments relating to this provision previously.

Section 61.65(a)(3) - EDC/VCM Relief Valve Discharges

Proposed Section 61.65(a)(3) limits the number of discharges to the atmosphere from relief valves on equipment in vinyl chloride service to no more than four discharges per year. This proposal places the same restrictions on all EDC/VCM plants without regard to the number of production units within such plants. Thus, it imposes different degrees of control stringency. A three-unit plant in which each unit produces, for example, 400 tons per day of VCM has more potential and opportunity for relief valve discharges than does a plant consisting of single unit producing 1,200 tons per day. The number of relief valves in the three-unit plant is greater by a factor of approximately three as are the number of operating personnel. Although each task or hour of operation in a smaller unit generates a smaller amount of VCM, it exposes the unit to the same risk of relief valve discharge as applied to the larger unit. This factor was recognized by EPA when it set the allowable number of releases for batch PVC plants, but it was ignored by the Agency here. We consider this position to be unfair and inequitable. The remedy is to apply the limit individually for each distinct production unit. Therefore, this provision should be amended to indicate the number of discharges to the atmosphere shall not exceed four discharges per year for each production unit.

This revision would also correct inequities which will arise when an existing facility adds additional production units. The data on which the four discharge per year figure was developed are representative of existing facilities and not expanded facilities which may occur in the future by the addition of a new train in an existing plant. If the Agency does not accept our suggested change on the permissible number of discharges per unit, we recommend, in the alternative, that section 61.65(a)(3) be revised to allow for a compensating

adjustment in the limit for expanded plants. The following language should be added:

> The number in excess of four of allowable discharges at a plant which expands after the effective date of this regulation shall be increased in proportion to its larger capacity.

Section 61.65(a)(4) - Discharge Events

EPA should include additional language in section 61.65(a)(4) to assure that multiple relief valve discharges that occur because of one over pressure event be considered only one discharge. As stated in the preamble (50 Fed. Reg. 1,189), "for determining compliance with the numerical limits, discharge frequency is to be recorded on the basis of individual discharges except when simultaneous discharges occur from relief valves on the same piece of equipment."

Typically, PVC reactors are outfitted with several relief valves, which may be set to relieve at increasingly higher pressures. This is considered good design practice because the amount of a a release can be better minimized. If necessary, more than one of the relief valves could discharge, but not necessarily exactly at the same time since relief valves are often set to relieve at different pressures.

EPA appears to recognize this possibility in the preamble language quoted above. However, the requirement that discharges be "simultaneous" should be eliminated. Rather, multiple releases that occur because of a single over pressure event should be considered one release. To do otherwise would place a well-run plant with a single over-pressure event resulting in multiple relief valve discharges in the same position as a less well-run plant that had the same number of relief valve discharges from separate events. We do not believe that this is EPA's intention. Accordingly, we suggest that section 61.65(a)(4) be revised by adding the following sentence: "Multiple relief valve discharges which occur because of a single over-pressure event are considered to be one discharge." Should EPA not accept this suggestion, an alternative modification might read: "Multiple relief valve discharges from the

same vessel or piece of equipment which occur because of a single over-pressure event are considered to be one discharge."

Section 61.65(b)(3) - Seal Emissions

This section addresses fugitive emissions from pumps, compressors and agitator seals. In proposing to add the requirements of Subpart V to the vinyl chloride standard, EPA indicated (50 Fed. Reg. 1,191) that the impact of this change would be primarily on valves and flanges since the Agency considers the requirements of the current standard for pump, compressor and agitators seals to be equivalent to those required by Subpart V. There are, however, certain seal monitoring requirements in Subpart V that are not contained in the vinyl chloride standard. As now proposed, this would require the industry to refit most, if not all, of its seal installations with these monitoring devices, a requirement that would impose signficant costs on the industry. Since the proposed revisions require that the fixed point monitoring system for leak detection be retained, we agree with the Agency that an adequate leak warning system is in place to detect seal failures without the necessity of adding specific seal monitoring systems. We therefore recommend that section 61.65(b)(3) be amended by adding the following sentence at the beginning of the subsection: "Compliance with this provision is considered equivalent to the requirements of 61.242-2 and 61.242-3 of this part."

Section 61.65(b)(8) - Leak Detection and Elimination

The proposed leak detection and elimination provisions raise very serious issues. Although EPA characterizes these proposals as "administrative", the proposed leak detection and elimination provisions would impose new and costly substantive requirements. We suggest that these provisions be revised to more closely follow EPA's intent as explained in the preamble. For example, the Agency states "the proposed revisions include provisions that allow plants with existing effective plans to periodically demonstrate the effectiveness of their plans <u>without additional requirements</u>." 50 Fed. Reg. 1,190 (emphasis added). From this general statement, EPA proceeds to make specific its intent not to impose additional requirements. For example, the preamble states:

> However, the process units within VC and PVC plants in which the percentage of leaking valves is equal to or less than 2.0% are considered by the EPA to be effectively controlling VC emissions from leaking valves. For these process units, the existing leak detection and elimination program will continue to be allowed while the percentage of leaking valves is 2.0% or less. Id. at 1,191.

In comparing the current leak detection and elimination provisions of the vinyl chloride standards with the more newly enacted provisions of Subpart V of the NESHAPs regulations, EPA states:

> Subpart V would substantially affect only valves and flanges in VC service within the industry. All other equipment in VC service are already required by the VC standard to comply with equipment and work practice standards consistent with those in Subpart V. Id. at 1,191.

We agree with EPA that most of the provisions in section 61.65(b)(8) describe a productive and effective leak detection program. However, we do not find them recognized effectively in the proposed amendments. For example, neither of the alternatives open to the owner/operator nor the requirements imposed by the alternatives as described in the preamble are clear. Further, references to "VOC service" in 61.65(b)(8)(ii)(B) should be changed to "vinyl chloride service."

As we have stated previously, clarity and lack of ambiguity are essential to effective implementation and constructive enforcement of this standard. These goals can be obtained by modifying the introductory section of section 61.65(b)(8) and portions of subsection (ii). The language that follows would establish a clear choice for sources subject to the standard: comply with Subpart V or comply with an approved vinyl chloride standard leak detection and elimination plan supplemented with a performance test that demonstrates each plan's efficacy in controlling leaks from valves.

The owner or operator shall choose either to implement the leak detection program of Subpart V of this Part, or the program described below, and shall implement that choice within 90 days of the effective date of these regulations unless a waiver of compliance is granted under § 61.11. Owners or operators of approved leak detection programs need not resubmit such programs to the Administrator. Otherwise, the owner or operator shall submit to the Administrator a leak detection plan within 90 days of the effective date of this regulation. Failure of the Administrator to disapprove the plan within 60 days shall be deemed an approval. Approval of the plan will be granted by the Administrator provided he finds:

(i) ***

(ii) It includes a reliable and accurate portable hydrocarbon detector to be used consistent with the provisions of Subpart V of this Part for measuring the leakage from valves in vinyl chloride service.

(A) ***

(B) In each performance test, a total of 200 valves in vinyl chloride service, or 90% of the valves in the operating unit, whichever is less, shall be randomly selected and monitored . . . . The leak percentage shall be determined by dividing the number of valves in vinyl chloride service for which leaks are detected by the number of tested valves in vinyl chloride service.

(C) ***

(D) ***

(E) Any process unit in which the percentage of leaking valves is found to be greater than 2.0 percent, and which cannot pass a retest within 30 days shall become subject to provisions of Subpart V relating to valves (§ 61.242-7) of this Part within 90 days, and shall remain subject to that Subpart for one year before it may exercise the option of selecting the alternative provided in § 61.65(b)(8).

Section 61.67(g)(3)(iii) - Emission Testing Requirements

The proposed changes to the emission testing requirements of section 61.67 include reactors used as strippers. We believe it was EPA's intent to require only that sources submit for the Administrator's approval calculation methods for reactors used as strippers. However, a literal reading of section 61.67(g)(3)(iii) could require resubmission for approval of existing calculation methods for other stripping operations. Therefore, we recommend that existing section 61.67(g)(3)(iii) be left unchanged, that the following language be added as new section 61.67(g)(3)(iv):

> The corresponding quantity of material processed by each reactor used as a stripper is to be determined on a dry solids basis and by a method submitted to and approved by the Administrator.

Existing section 61.67(g)(3)(iv) should be redesignated as section 61.67(g)(3)(v).

Section 61.67(h)(1)

This proposed section describes equipment within a process unit that is considered to be "in vinyl chloride service.". We recommend that the first sentence in this section be amended to read as follows:

> Within a process unit, each piece of equipment that can reasonably be expected to contain vinyl chloride is presumed to be in vinyl chloride service unless an owner or operator demonstrates that the piece of equipment is not in vinyl chloride service.

The above language is identical to that which we proposed at the August 10, 1984 meeting of the National Air Pollution Control Techniques Advisory Committee. We believe that this language clarifies the intent of section 61.67(h)(1). Further, the Agency apparently accepted our comments and intended to incorporate this meaning.

Section 61.70(d)(6) - Bulk Plants

For bulk production plants, EPA proposes that a single polymerization batch includes "both prepolymerizaton and postpolymerization reactor operations." In actual practice, each prepolymerization or postpolymerization reaction vessel is used for its own separate polymerization; and, therefore, each has its own exclusive opportunities for relief valve discharges.

EPA's proposal unfairly penalizes bulk production plants by effectively reducing by half the total number of polymerization batches used to calculate the frequency of discharges as calculated under the formula contained in proposed section 61.70(d)(3). For example, rather than allowing one discharge for every 2,858 batches, as permitted for other processes having the 0.35 discharges per 100 polymerization batches limit, the definitional provision of section 61.70(d)(6) reduces this to only ~~one~~ permissible discharge for every 5,716 batches. EPA provides no justification for this and we believe there is none. We strongly recommend that this section be changed to indicate that each prepolymerization batch and each postpolymerization batch are to be counted separately and individually in calculating the number of polymerization batches.

III.

The Vinyl Institute appreciates this opportunity to present its comments and looks forward to the promulgation of the revised proposal. We would be happy to provide additional information or support for the comments presented here and stand ready to assist the Agency in developing the best possible standard.

Sincerely,

W.C. Holbrook, Chairman
Manufacturing Practices Committee
The Vinyl Institute

Enclosure

cc: S. Wyatt
R. Rosensteel
L. Evans
F. Dimmick
G. Wood

40 CFR Part 61.61 (O)
REVISION OF THE DEFINITION OF "ETHYLENE DICHLORIDE PURIFICATION"

EPA Response to Vinyl Institute NAPTAC Comments

"The revision to the definition was not intended to broaden the existing definition but was intended to clarify the definition because certain plants had misinterpreted what equipment was covered. The existing definition was intended to include inprocess storage tanks (where vinyl chloride may be present) and not final product storage tanks (where vinyl chloride is not expected to be present). The reason for the revision will be added to the preamble. (Meanwhile, the BF Goodrich representative indicated that he would submit information on the vinyl chloride content of liquid ethylene dichloride and vapor space in storage tanks that might, in his opinion, be regulated by the revised definition as written. The purpose of this submittal is to help us clarify which tanks in fact we intended to be covered by the standard.)

VINYL INSTITUTE RESPONSE:

As we stated at the NAPTAC Meeting in Durham on August 30, 1984, EPA has presented no rationale or discussion concerning revision of the definition of "ethylene dichloride purification." No justification has been presented for inclusion of stoarge tanks in this definition. No estimates of vinyl chloride emissions or cost impact for including storage tanks was provided. Absolutely no technical, environmental or economic justification was provided.

To demonstrate that storage tanks do not pose a significant source of vinyl chloride emissions and that the cost associated with required controls is not justified we present the actual data from the plants involved as follows:

PLANT	TANKS	SIZE (M GALLONS)	VCM EMISSIONS (Tons/Year)	COST OF CONTROL
A	8	1.0 - 523	1.3	2,300,000
B	1	200	0.03	20,000
C	7	850*/	0.05	680,00

Plant	Cost Per Ton
A	$ 2,100,000
B	$ 670,000
C	$13,500,000

*/ Total of 7 Tanks

From AP 42, Supplement 12

$$L_B = 2.26 \times 10^{-2} \; M \left[\frac{P}{14.7 - P}\right] 0.68 D^{1.73} H^{0.15} \Delta T^{0.5} F_p C K_c$$

Where L_B= Fixed roof breathing loss, lb/yr. organics
M= Molecular weight lb/mole
P= True vapor pressure at bulk liquid condition psia
D= Tank diameter, feet
H= Average vapor space height, including roof volume correction, ft.
ΔT= Average ambient temp. change night and day, °F.
F_p= Paint factor (from Table 4.3.2).
C= Adjustment factor for small diameter tanks (from Figure 4.3.4).
K_c= Crude oil factor (.65 for crude oil, 1.0 for gasoline and otoher liquids).

V-130 (at OCD)

M= 35.8 Average
P= 2.53 psia (Organics)
D= 30 ft.
H= 8 ft.
ΔT= 9.3°F
F_p= 1.0
C= 1.0
K_c= 1.0

L_B= (.226) (99) (.344) (3593.3) (2.89) (3.05) (1) (1) (1)
= 2437.6 lbs EDC/yr

VCM= 2437.6 x .0235 = 57.3 lbs/yr. (VCM)

TANK CONDITIONS

Tank - V- 130
Dimensions - 30 ft. diameter x 40 ft. high
Tank Color - White
Paint Condition - Good
Liquid Temperature 35°C.
Liquid Level - Constant
Material - Ethylene Dichloride
Weight Fraction EDC in Vapor - 0.0235

Attachment

40 CFR Part 61.61 (O)
REVISION OF THE DEFINITION OF "ETHYLENE DICHLORIDE PURIFICATION"

EPA Response to Vinyl Institute NAPTAC Comments

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