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RE: Clarification on Certain Provisions in the National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production ("PVC MACT")

Dear Ms. Siefers:

As previously discussed with you and other U.S. Environmental Protection Agency ("EPA" or "Agency") staff, the Vinyl Institute PVC MACT Working Group (hereinafter, "Working Group") has been developing a list of questions relating to the implementation of the PVC MACT.[1] Although these issues do not appear to require substantive revisions to the rule, they do cause confusion about the appropriate interpretation of the regulatory language, raise critical questions about how to implement the rule, and have the potential to adversely affect compliance within the industry. Accordingly, the Working Group requests that the Agency take steps to address these issues, either by making minor corrections to the final rule or by providing written clarification in a guidance document. These issues are organized by area of regulation and generally in the order they appear in the final rule, as follows.

I. Storage Vessels (77 Fed. Reg. 22,910–11, 22,942; codified at 40 C.F.R. § 63.11910, Table 3)

The Working Group requests clarification of the venting requirements for fixed roof storage vessels in HAP service. The plain language of Table 3 requires venting certain fixed roof storage vessels in HAP service – those with a capacity greater than or

[1] In addition to Vinyl Institute ("VI") members Formosa Plastics Corporation, U.S.A., Occidental Chemical Corporation/Oxy Vinyls, LP, PolyOne Corporation, Shintech Inc., and Westlake Chemical Corporation, the PVC MACT Working Group has included non-VI members The Dow Chemical Company and Axiall (formerly Georgia Gulf) Corporation. The Vinyl Institute, Inc., founded in 1982, is a U.S. trade association representing the leading manufacturers of vinyl, vinyl chloride monomer, vinyl additives and modifiers, and vinyl compound materials.

equal to 20,000 gallons, but less than 40,000 gallons, and that contain HAP with vapor pressure greater than or equal to 4 pounds per square inch absolute ("psia") – to a closed vent system and 95% efficient control device.[2] Currently, however, some fixed roof storage vessels are vented back to a closed process in order to maximize recovery of vinyl chloride, rather than directly to a closed vent system and control device.

Interestingly, Table 3 imposes what we presume are even more stringent requirements for pressure vessels under higher levels of pressure. Specifically, any pressure vessel containing materials at a vapor pressure greater than 11.1 psia must comply with the requirements of 40 C.F.R. § 63.11910(c), which provides, in relevant part, that:

> *(1) Whenever the pressure vessel is in hazardous air pollutants (HAP) service, you must operate the pressure vessel as a closed system that does not vent to the atmosphere, e.g., during filling, emptying and purging. The vent stream during filling, emptying and purging must meet the requirements of § 63.11925(a) and (b).*

Of relevance here, Sections 63.11925(a) and (b) impose requirements on process vents, and venting from fixed roof vessels back to the process is a conservative approach of managing such vessels. Accordingly, the Working Group asks that EPA confirm that this means of handling vapor streams from fixed roof tanks is acceptable. One approach could be to revise the language in Table 3 as follows:[3]

TABLE 3 TO SUBPART HHHHHHH OF PART 63—SUMMARY OF CONTROL REQUIREMENTS FOR STORAGE VESSELS AT NEW AND EXISTING SOURCES		
If the storage vessel capacity (gallons) is . . .	And the vapor pressure (psia) is . . .	Then, you must use the following type of storage vessel . . .
≥20,000 but <40,000	≥4	Internal floating roof, external floating roof, or fixed roof vented to a closed vent system and control device achieving 95 percent reduction or routed to the process.
≥40,000	≥0.75	Internal floating roof, external floating roof, or fixed roof vented to a closed vent system and control device achieving 95 percent reduction or routed to the process.
Any capacity.	>11.1	Pressure vessel.
All other capacity and vapor pressure combinations		Fixed roof.

[2] The Working Group assumes that the 95% reduction required in Table 3 refers to total organic HAP, as determined using the procedure described in the definition of "in HAP service."

[3] Internal footnotes omitted.

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II. Equipment Leaks

A. *Reciprocating Pumps, Rotating Pumps, and Similar Equipment (77 Fed. Reg. 22,911–12; codified at 40 C.F.R. § 63.11915)*

The Working Group submits that the equipment leak provisions in Section 63.11915 are unclear with regards to the portions of Part 63, Subpart UU that are applicable to the various types of equipment within the PVCPU. Consequently, the Working Group seeks clarification on the Subpart UU requirements applicable to pumps, compressors, agitators, and other equipment under Section 63.11915. In part, this confusion arises from changes made to these requirements in the final rule. As EPA noted in the preamble to the final PVC MACT rule:

> *The proposed requirement that reciprocating pumps, reciprocating and rotating compressors and agitators be equipped with double seals, or equivalent, was in error. In the final rules,* ***we have adopted the MACT floor level of control for equipment leaks for all components (which is compliance with 40 CFR part 63, subpart UU****), which gives affected sources the option of installing double seals, or equivalent, or complying with the LDAR requirements of the equipment leak standards.*[4] *(Emphasis added.)*

As currently written, however, Section 63.11915 creates significant confusion about the scope of coverage of Subpart UU. Specifically, the Working Group is confused by the departure from the Subpart UU segregation of certain equipment, including pumps, on the basis of whether they are in light or heavy liquid service. The exclusion of Subpart UU, Section 63.1026, is particularly problematic because most pumps in a PVCPU operate in light liquid service. In addition, Section 63.11915(a) expressly excludes a reference to Subpart UU for agitators from Section 63.11915(a) and this presents problems for certain PVCPUs.

To make matters worse, Section 63.11915 appears to be circular, as it expressly states that "[f]or each type of equipment specified in paragraphs (b)(1) and (2) of this section, you must also meet the requirements of paragraph (a) of this section," meaning compliance with Subpart UU. In addition, both Sections 63.11915(b)(1) and (b)(2) state that for rotating pumps, on the one hand, and reciprocating pumps, rotating compressors, reciprocating compressors, and agitators, on the other, compliance may be achieved "by complying with the requirements of 40 CFR part 63, subpart UU for the relevant equipment."

In our view, the inclusion of this language in subparagraphs (b)(1) and (b)(2) is redundant, because the option to use double mechanical seals or sealless pumps is already provided for pumps in Sections 63.1026(e)(1)-(2) in Subpart UU. The Working Group, therefore, suggests the following corrections to Section 63.11915 to clarify and resolve this issue (new text is underlined; deletions are in strikethrough):

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[4] 77 Fed. Reg. 22,880.

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§ 63.11915 What are my compliance requirements for equipment leaks?

For equipment in HAP service (as defined in § 63.12005), you must comply with the requirements in paragraphs (a) and (b) of this section. For pressure relief devices in HAP service, you must comply with the requirements in paragraphs (a) ~~through~~ and (c) of this section.[5]

(a) Requirement for certain equipment in subpart UU of this part. You must comply with §§ 63.1020 ~~through 63.1025, 63.1027, 63.1029 through 63.1032, and 63.1034~~ through 63.1039 of subpart UU of this part.

(b) Alternative Requirements for pumps, compressors, and agitators. ~~You must meet the requirements of paragraphs (b)(1) and (2) of this section. For each type of equipment specified in paragraphs (b)(1) and (2) of this section, you must also meet the requirements of paragraph (a) of this section.~~

~~(1) Rotating pumps.~~ HAP emissions from seals on all ~~rotating~~ pumps, compressors, and agitators in HAP service ~~are to~~ may be minimized by either installing sealless pumps, ~~pumps with~~ double mechanical seals or equivalent equipment~~, or by complying with the requirements of 40 CFR part 63, subpart UU for rotating pumps.~~ If double mechanical seals are used, emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is into the pump; by complying with § 63.11925(a) and (b); or equivalent equipment or procedures approved by the Administrator. You must also meet the reporting, recordkeeping, and inspection provisions applicable to each piece of equipment under subpart UU of this part.

~~(2) Reciprocating pumps, rotating compressors, reciprocating compressors and agitators. HAP emissions from seals on all reciprocating pumps, rotating compressors, reciprocating compressors and agitators in HAP service are to be minimized by either installing double mechanical seals or equivalent equipment, or by complying with the requirements of 40 CFR part 63, subpart UU for reciprocating pumps, rotating compressors, reciprocating compressors and/or agitators. If double mechanical seals are used, HAP emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is~~

[5] This language is proposed solely as a technical correction to the PVC MACT's cross-references to Subpart UU, and neither waives nor rescinds substantive objections to the pressure relief device provisions the Working Group raised in its June 18, 2012 Petition for Reconsideration.

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~~*into the pump; by complying with § 63.11925(a) and (b); or equivalent equipment or procedures approved by the Administrator.*~~

The revisions proposed above also would address the issues raised in the next two sections, which are dealt with separately in the event EPA follows a different option.

B. Open-Ended Lines (77 Fed. Reg. 22,911–12; codified at 40 C.F.R. § 63.11915)

As with pumps and similar equipment, as described in the previous question, there is some confusion concerning the requirements applicable to open-ended lines ("OELs"). According to the Agency, OELs are subject to the equipment leak provisions of the rule; however, the express language of the final rule excludes OELs. Accordingly, EPA should make minor modifications to the regulatory text to affirmatively state that OELs are covered.

Specifically, with regard to OELs, EPA indicated as follows:

> *Lastly, preamble Section IV.A. states that a PVCPU includes "equipment," which in turn includes items such as open-ended valves or lines, sampling connection systems, and pressure relief devices needed for safety purposes. Therefore, equipment leak provisions do apply to these types of equipment.*[6]

Indeed, the regulatory definition of "equipment" under the PVC MACT expressly lists OELs:

> *Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system,* ***open-ended valve or line****, valve, connector and instrumentation system in HAP service; and any control devices or systems used to comply with this subpart.*[7] *(Emphasis added.)*

Confusion arises in how the Agency has allocated the applicable equipment leak requirements at Section 63.11915. That section provides that:

> *For equipment in HAP service (as defined in § 63.12005), you must comply with the requirements in paragraphs (a) through (c) of this section.*[8]

By their plain language, however, paragraphs (a) through (c) only apply to specific pieces of equipment and are silent regarding OELs. Paragraphs (b) and (c) are inapplicable here because they apply solely to pumps, compressors, agitators, and

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[6] *Summary of Public Comments and Responses* (Document No. EPA-HQ-OAR-2002-0037-0185), at 15-85 to 15-86.

[7] 40 C.F.R. § 63.12005.

[8] 40 C.F.R. § 63.11915.

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pressure relief devices. Paragraph (a), which is intended to address "certain equipment," arguably would apply, as it references the Subpart UU standards for equipment leaks. However, the final regulatory text appears to specifically exclude the Subpart UU standards for OELs at Section 63.1033, and provides no reference to other standards that would be appropriate for this type of equipment:

> *Requirement for certain equipment in subpart UU of this part. You must comply with §§ 63.1020 through 63.1025, 63.1027, 63.1029 through 63.1032, and 63.1034 through 63.1039 of subpart UU of this part.*[9]

The PVC MACT Working Group assumes that this omission was an oversight, as Section 63.1033 had been included in the proposed rule, as follows:

> *Requirement for certain equipment in subpart UU of this part. You must comply with §§ 63.1020 through 63.1025, § 63.1027, and* ***§§ 63.1029 through 63.1039*** *of subpart UU of this part.*[10] *(Emphasis added.)*

Should the Agency not revise Section 63.11915 as suggested in the preceding discussion, the Working Group recommends that EPA make the following minor correction to Section 63.11915(a) (new text is underlined; deletions are in strikethrough), to confirm the applicability of the equipment leak provisions to OELs:

> *Requirement for certain equipment in subpart UU of this part. You must comply with §§ 63.1020 through 63.1025, 63.1027, and 63.1029 through ~~63.1032, and 63.1034 through~~ 63.1039 of subpart UU of this part.*

C. Reciprocating Compressors and Agitators (77 Fed. Reg. 22,911–12; codified at 40 C.F.R. § 63.11915)

The LDAR provisions are also causing some confusion, because it appears to refer to "reciprocating agitators," a piece of equipment that is not present at PVC facilities:

> *Reciprocating pumps, rotating compressors,* ***reciprocating compressors and agitators****. HAP emissions from seals on all reciprocating pumps, rotating compressors,* ***reciprocating compressors and agitators*** *in HAP service are to be minimized by either installing double mechanical seals or equivalent equipment, or by complying with the requirements of 40 CFR part 63, subpart UU for reciprocating pumps, rotating compressors,* ***reciprocating***

[9] 40 C.F.R. § 63.11915(a).

[10] 76 Fed. Reg. 29,528, 29,566.

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***compressors and/or agitators**. If double mechanical….*[11]
(Emphasis added.)

Should EPA not revise Section 63.11915 as suggested in the preceding question concerning pumps, the Working Group suggests that a "," be inserted in this subparagraph following each instance of "reciprocating compressors" to make clear that this provision applies to agitators or reciprocating compressors, as follows (new text is underlined):

> *Reciprocating pumps, rotating compressors, reciprocating compressors, and agitators. HAP emissions from seals on all reciprocating pumps, rotating compressors, reciprocating compressors, and agitators in HAP service are to be minimized by either installing double mechanical seals or equivalent equipment, or by complying with the requirements of 40 CFR part 63, subpart UU for reciprocating pumps, rotating compressors, reciprocating compressors, and/or agitators. If double mechanical….*

D. Compliance Report (77 Fed. Reg. 22,932; codified at 40 C.F.R. § 63.11985(b)(1))

The Working Group requests clarification from the Agency on the compliance report requirements applicable to equipment leaks from pressure vessels. The PVC MACT currently states:

> *You must include a copy of the inspection record specified in § 63.11990(b)(2) for each storage vessel when a defect, failure, or leak is detected. You must also include a copy of the applicable information specified in § 63.1039(b)(5) through (8) of subpart UU of this part **for each pressure vessel**.*[12] *(Emphasis added.)*

The referenced provisions in Sections 63.1039(b)(5)-(8) apply to valves, pumps, and alternative means of emissions limitations for batch processes, as well as require additional reporting for new sources and when changes are made to the method of compliance, none of which appear relevant to pressure vessels. Accordingly, the Working Group requests that EPA delete this reference, as illustrated below (deletion is in strikethrough):

> *You must include a copy of the inspection record specified in § 63.11990(b)(2) for each storage vessel when a defect, failure, or leak is detected. ~~You must also include a copy of the applicable information specified in § 63.1039(b)(5) through (8) of subpart UU of this part for each pressure vessel.~~*

[11] 40 C.F.R. § 63.11915(b)(2).

[12] 40 C.F.R. § 63.11985(b)(1).

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E. Inspection of Repaired Equipment Leaks (77 Fed. Reg. 22,940; codified at 40 C.F.R. § 63.12005)

The Working Group requests clarification from the Agency concerning the definitions of the terms "first attempt at repair" and "repaired," particularly as they relate to the inspection of equipment leaks and other requirements. For example, "repaired" is defined as:

> *Repaired, for the purposes of this subpart, means equipment that is adjusted or otherwise altered to eliminate a leak as defined in the applicable sections of this subpart; and unless otherwise specified in applicable provisions of this subpart,* ***is inspected as specified in § 63.11930(f)*** *to verify that emissions from the equipment are below the applicable leak definition.*[13] *(Emphasis added.)*

The Working Group submits that the reference to Section 63.11930(f) is confusing for a general definition of "repaired," as that provision deals with leak repairs for closed vent systems. Nor does the "unless otherwise specified" clause fully clarify the issue, as inspection and repair provisions for various types of equipment actually are specified in other subparts. For example, as equipment leaks are subject to Subpart UU, such leaks would be repaired in accordance with the Subpart UU definition, which references Sections 63.1023(b) and (c), rather than Section 63.11930(f). Similarly, as floating roof storage vessels are subject to the operating, inspection, repair, and maintenance requirements of 40 C.F.R. Part 63, Subpart WW,[14] inspection pursuant to Section 63.11930(f) also does not appear to apply.

Accordingly, the Working Group requests that the Agency confirm that the inspection process in Section 63.11930(f) applies to the repair of equipment for which inspection and repair requirements under another subpart have not been expressly specified.

III. Deviations (77 Fed. Reg. 22,909, 22,911–12; codified at 40 C.F.R. §§ 63.11890, 63.11915)

The Working Group requests that the Agency confirm that leaks and pressure relief valve discharges from equipment not in HAP service are not violations under the PVC MACT, because such equipment is not within the scope of the requirements in Section 63.11915.

IV. Heat Exchange Systems

A. MACT Floor (77 Fed. Reg. 22,912–14; codified at 40 C.F.R. § 63.11920)

The Working Group requests that EPA provide clarification on the method used to calculate the MACT floor for the leak threshold limits and work practice standards for

[13] 40 C.F.R. § 63.12005.

[14] 40 C.F.R. § 63.11910(b).

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heat exchange systems. According to Table 3-62 in the MACT floor analysis document,[15] the same OxyVinyls Pasadena cooling tower was counted twice with a leak threshold limit of 50 ppbw for both speciated VOCs and VOCs. The Working Group believes that this double counting of the same cooling tower's leak threshold limits and the mixing of threshold limits for both VOCs and speciated VOCs in Table 3-62 is in error, and requests that EPA clarify how these values were calculated.

B. Test Method (77 Fed. Reg. 22,912; codified at 40 C.F.R. § 63.11920)

In Section 63.11920(a)(3)(ii), the Agency specifies the use of Method 624 for strippable VOCs in cooling water, rather than the equivalent Method SW-846-8260B used elsewhere in the rule for strippable VOCs. Although these methods are equivalent, laboratories must be certified in the particular method used. Furthermore, Method 8260B is used in other parts of the PVC MACT and allowing its use here would increase consistency within the final rule.[16] Accordingly, the Working Group recommends that the Agency make the following minor corrections to Section 63.11920(a)(3)(ii) (new text is underlined):

> *Determine the total strippable volatile organic compounds concentration (in parts per billion by weight) in the cooling water using Method 624 at 40 CFR part 136, appendix A, or Method SW-846-8260B. The target list of compounds shall be generated based on a pre-survey sample and analysis by gas chromatography/mass spectrometry and process knowledge to include all compounds that can potentially leak into the cooling water. If Method 624 of part 136, appendix A, or Method SW-846-8260B is not applicable for all compounds that can potentially leak into the cooling water for a given heat exchange system, you cannot use this monitoring method for that heat exchange system.*

V. Process Vents

A. Batch and Continuous Process Vent Definitions (77 Fed. Reg. 22,914, 22,937; codified at 40 C.F.R. §§ 63.11925, 63.12005)

The definitions for both "batch process vent" and "continuous process vent" contain the phrasing "a vent…from a PVCPU through which a **HAP-containing gas stream** has the potential to be released to the atmosphere…." (Emphasis added.) The plain language of Section 63.11925(b) clearly states that the closed vent system requirements only apply to batch and continuous process vents "in HAP service." Accordingly, the Working Group requests that EPA confirm that only process vents in HAP service, rather than those that contain any HAP, are subject to these requirements.

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[15] Document No. EPA-HQ-OAR-2002-0037-0193.

[16] In addition to consistency, another advantage of Method 8260B is that its specified analyte list is longer (*i.e.*, more HAPs are verified as appropriate analytes for the method) and more options are available to optimize the method for specific HAPs (*e.g.*, heated purge).

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The Working Group also requests that the Agency confirm that inorganic HAPs are not considered in determining whether a vent stream is in HAP service, as stated in the "in HAP service" definition:

> *In HAP service means that a process component either contains or contacts a liquid that is at least 5-percent HAP by weight or a gas that is at least 5 percent by volume HAP as determined according to the provisions of § 63.180(d).* ***For the purposes of this definition, the term "organic HAP" as used in § 63.180(d) [determined using Method 18 of part 60, appendix A] means HAP.*** *The provisions of § 63.180(d) also specify how to determine that a process component is not in HAP service.*[17] *(Emphasis added.)*

B. Process Vent Definition (77 Fed. Reg. 22,937, 22,939, 22940; codified at 40 C.F.R. § 63.12005)

The Working Group submits that it would be helpful to the PVC industry if the PVC MACT provided clear indication of what equipment and process components are not considered process vents (batch, continuous, or miscellaneous), as is done in the VCM NESHAP and the HON (*see*, for example, 40 C.F.R. § 63.107, *Identification of process vents subject to this subpart*). Although the scope of the process vent and closed vent system requirements can be determined from reading the rule as a whole, confusion may arise as to whether some equipment and process components (*e.g.*, leaks, opened equipment, storage tanks, and vents from equipment not in HAP service) could be regulated under more than one primary section of the rule. The Working Group requests that the Agency consider revising the definition of process vent (or, alternatively, the definitions of batch process vent, continuous process vent, and miscellaneous vent) to make this distinction.

C. Sweep Gases (77 Fed. Reg. 22,914, 22,927–28; codified at 40 C.F.R. §§ 63.11925, 63.11955)

The Working Group requests confirmation that the use of sweep gases is permitted under the rule as part of the procedure used to clear process components and equipment under the equipment opening provisions. Under current industry practice, certain amounts of sweep gases are sent through closed piping to the recovery system, while others, such as steam evacuation, are sent to the control device. The Agency acknowledges the use of sweeping in the preamble to the final rule:

> *…we are requiring work practices that require venting the emissions from process components and equipment through a closed vent system to a control device prior to opening to minimize emissions. This is typically achieved by sweeping the component or equipment*

[17] 40 C.F.R. § 63.12005.

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several times with nitrogen to reduce the concentration of HAP in the vapor space of the component or equipment.[18]

Sweep gases are not mentioned, however, in the equipment opening provisions in Section 63.11955. Although the Agency states in Section 63.11925(a) that "emission limits in Table 1 or 2 to this subpart must not be met through dilution," the Working Group does not believe that the Agency intended to prohibit sweeping, even if it has some dilutive effect. The Working Group recommends the following minor correction to Section 63.11925(a) to resolve this uncertainty (new text is underlined):

> *Emission limits. Each process vent must meet the emission limits in Table 1 or 2 to this subpart prior to the vent stream being exposed to the atmosphere. The emission limits in Table 1 or 2 to this subpart apply at all times. The emission limits in Table 1 or 2 to this subpart must not be met through dilution. Gas or steam sweeping prior to opening equipment or process components in accordance with § 63.11955 is not considered dilution.*

The Working Group would also like to confirm that other methods, such as steam, may be used to sweep equipment prior to opening.

D. Miscellaneous Vents and Samples (77 Fed. Reg. 22,914–16, 22,939; codified at 40 C.F.R. §§ 63.11925, 63.12005)

The Working Group requests clarification of the miscellaneous vent requirements applicable to gaseous emissions from samples. The plain language of the miscellaneous vent definition indicates that only gaseous emissions from samples are intended to be covered:

> *Miscellaneous vent means **gaseous emissions from samples**, loading and unloading lines… .*[19] *(Emphasis added.)*

This creates significant questions within the industry as to how such control can be achieved. Under the VCM NESHAP, PVC facilities were required to address emissions from samples as follows:

> *Samples. Unused portions of samples containing at least 10 percent by weight vinyl chloride are to be returned to the process or destroyed in a control device from which concentration of vinyl chloride in the exhaust gas does not exceed 10 ppm (average for 3-hour period) or equivalent as provided in § 61.66. Sampling techniques are to be such that sample containers in vinyl chloride service are purged into a closed process system. Compliance with*

[18] 77 Fed. Reg. 22,885.

[19] 40 C.F.R. § 63.12005.

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the provisions of 40 CFR part 61 subpart V demonstrates compliance with the provisions of this paragraph.[20]

Arguably, the Agency intended to transfer this approach to the PVC MACT when in its response to comments document it noted:

While we agree that samples are not process vents, the part 61 rule required that samples be returned to the process and emissions controlled to meet 10 ppmv of vinyl chloride. The final rule, [sic] we include samples as miscellaneous vents and require that emissions from miscellaneous vents be controlled to meet the applicable process vent emission limit.[21]

Limiting gaseous emissions from samples makes sense when they are stored in hermetically sealed containers from which no emissions escape. It is not clear, however, whether EPA intended to include sample collection and analysis as part of the miscellaneous vent definition. Because the PVC MACT regulations require that a "miscellaneous vent that is in HAP service must be routed through a closed vent system to a control device…"[22] there are practical and logistical barriers to complying with these requirements for certain samples. For example, certain facilities have slip stream sample analyzers that route back to the process.

In addition, vent hoods at plant laboratories, which do not fit under the definition of the PVCPU, are primarily used for personnel protection when samples are analyzed, and for the most part have no practical means of collecting emissions. Lastly, Subpart UU, Section 63.1032, already regulates the sampling of process fluids, and allows purging samples into a container, provided the container is kept covered or closed when not being filled or emptied. The Working Group requests that the Agency clarify the scope of the miscellaneous vent requirements as they apply to samples.

VI. CEMS (77 Fed. Reg. 22,914–16; codified at 40 C.F.R. § 63.11925)

The Working Group requests that the Agency clarify the specific continuous emission monitoring system ("CEMS") that can be used to replace each continuous parameter monitoring system ("CPMS"). The final rule allows CEMS to be used "in lieu of establishing operating limits in §63.11880(b) and using CPMS to comply with the operating limits, as specified in §63.11940(a) through (h)."[23] The confusion arises, however, because the rule does not make clear in Sections 63.11940(a) through (h) and Table 7 how CEMS can be substituted for CPMS in practice if a combination of CEMS and CPMS is used to meet the emission limits in the rule. The Working Group requests

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[20] 40 C.F.R. § 61.65(b)(7).

[21] *Summary of Public Comments and Responses* (Document No. EPA-HQ-OAR-2002-0037-0185), at 10-57.

[22] 40 C.F.R. § 63.11925(b).

[23] 40 C.F.R. §§ 63.11925(c)(1), (2) and (3).

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that the Agency clarify which CEMS can be substituted for which CPMS requirements, on a control-technology-by-control-technology basis. The table below, which compares these requirements for existing major sources, has been prepared by the Working Group for the Agency's reference and further discussion.

CPMS for Various Equipment That Could be Eliminated With CEMS						
CEMS to Measure	**Emission Limits[a]**		**Thermal Oxidizer**	**Absorber/Scrubber**	**VGA**	**Condenser**
	PVC-Only	**PVC-Combined**				
Vinyl Chloride	6.0 ppmv	1.1 ppmv	Temp		air flow, bed temp, regeneration time, VOC out	Exit Temp
Hydrogen Chloride	78 ppmv	380 ppmv		pH, liquid flow, Delta P, air flow		
Total Hydrocarbons ("THC") or Total Organic HAP[b]	9.7 ppmv as propane	4.2 ppmv as propane	Temp, O2[c]		air flow, bed temp, regeneration time, VOC out	Exit Temp
	56 ppmv	9.8 ppmv				
Dioxins/Furans ("TEQ")	0.038 ng/dscm	0.051 ng/dscm	Temp, O2[c]	liquid flow, inlet temp, TO inlet conc.? / air flow?		

[a] ppmv = parts per million by volume dry at three percent oxygen ("O2"). ng/dscm = nanograms per dry standard cubic meter at three percent O2, limits for existing major sources.

[b] Total Organic HAP is alternative limit for THC.

[c] Oxygen not regulated by CPMS in rule.

The Working Group also seeks clarification concerning the process for gaining approval for a vinyl chloride CEMS. Although CEMS are listed in Section 11925(c) for several HAPs regulated by the PVC MACT, paragraph (c) does not include a vinyl chloride CEMS in addition to the CEMS already allowed (*i.e.*, HCl, THC, and TEQ). By way of background, several PVC facilities currently use a VCM analyzer (*i.e.*, a CEMS) for control devices, and would prefer to continue using this established method of monitoring process vent emissions. The Working Group requests that the Agency provide guidance for these PVC facilities on using existing vinyl chloride CEMS to comply with the PVC MACT. The Working Group also requests that the Agency clarify the compliance period (*i.e.*, an averaging basis of 1 hour or 3 hours) and other requirements that would apply once CEMS is implemented. If it is not possible for the Agency to develop industry-wide standards at this time, the Working Group requests that the Agency indicate whether vinyl chloride CEMS could be approved on a facility-by-facility basis through a Relative Accuracy Test Audit ("RATA").

VII. Drums, Pails, and Totes (77 Fed. Reg. 22,914–16, 22,939; codified at 40 C.F.R. §§ 63.11925, 63.12005)

The Working Group seeks confirmation of statements by EPA staff to Working Group members that totes and similar containers of raw materials, ingredients, treatment chemicals, etc. – which would meet the definition of "in HAP service," but for

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the fact that they are not "process components" – are not subject to the emission limitations at Table 1 and Table 2 of the PVC MACT. This stated position agrees with the plain language of the PVC MACT as it relates to drums, pails, totes, and other containers used to hold these materials, as discussed below.

As an initial matter, only process components are considered to be "in HAP service" under the PVC MACT final rule:

> *In HAP service means that a **process component** either contains or contacts a liquid that is at least 5-percent HAP by weight or a gas that is at least 5 percent by volume HAP as determined according to the provisions of § 63.180(d). For the purposes of this definition, the term "organic HAP" as used in § 63.180(d) means HAP. The provisions of § 63.180(d) also specify how to determine that a **process component** is not in HAP service.*[24] *(Emphasis added.)*

The term "process component", as defined in the PVC MACT, is intended to include parts and equipment permanently connected to perform a particular function within the PVCPU, and does not include unconnected vessels:

> *Process component means any unit operation or group of units operations or any part of a process or group of parts of a process **that are assembled** to perform a specific function (e.g., polymerization reactor, dryers, etc.). Process components include equipment, as defined in this section.*[25] *(Emphasis added.)*

By comparison, drums, pails, totes, and other small vessels are defined as "containers," which would not fall within the definition of process component as quoted above:

> *Container means a portable unit in which a material can be stored, transported, treated, disposed of or otherwise handled. Examples of containers include, but are not limited to, drums, pails, and portable cargo containers known as "portable tanks" or "totes." Container does not include transport vehicles or barges.*[26]

"Equipment" is included in the definition of process component, but containers clearly are not equipment under the final rule:

> *Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector and instrumentation system in HAP service; and any control devices or systems used to comply with this subpart.*[27]

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[24] 40 C.F.R. § 63.12005.

[25] 40 C.F.R. § 63.12005.

[26] 40 C.F.R. § 63.12005.

[27] 40 C.F.R. § 63.12005.

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Based on the plain language of the rule, containers are not "in HAP service" and, therefore, are not subject to the Table 1 and Table 2 emission limits. This comports with how containers are currently handled by PVC facilities, and is the only practical approach given that emissions from containers can only be controlled through work practice standards. Work practice standards are appropriate where a HAP "cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State or local law."[28] Existing practice in the PVC industry is to keep containers closed unless adding or removing material. The Working Group requests that the Agency confirm that containers are not subject to the Table 1 and Table 2 emission limits under the final rule.

VIII. Vacuum Systems (77 Fed. Reg. 22,916–19; codified at 40 C.F.R. § 63.11930)

The PVC MACT Working Group is requesting clarification as to the scope of the vacuum system provisions codified at 40 C.F.R. § 63.11930(h). It appears from the language of the reporting provision that the Agency intends for vacuum systems to operate continuously, but all PVC facilities also currently use an intermittent vacuum system normally routed to a recovery system for evacuating equipment prior to opening. We believe that the intent of the Agency was to require continuous vacuum when the closed vent system is not operating under the standard closed vent system requirements or has not been opened following the equipment opening procedures, as we discuss below.

Section 63.11930(h) provides that a closed vent system must either operate in vacuum service, as defined by the rule, or comply with the closed vent system requirements in paragraphs (a) through (g):

> *Closed vent systems in vacuum service. If you operate and maintain a closed vent system in vacuum service as defined in § 63.12005, you must comply with the requirements in paragraphs (h)(1) through (3) of this section, and you are not required to comply with any other provisions of this section.* ***Any incidence where a closed vent system designed to be in vacuum service is operating and not in vacuum service constitutes a violation of this rule, unless the closed vent system is meeting the requirements in paragraphs (a) through (g) of this section for closed vent systems that are not in vacuum service.*** *Any such incidence during a performance test invalidates the performance test. (Emphasis added.)*

The plain language thus comports with the way PVCPUs are designed: vacuum is used intermittently to evacuate equipment and clear the closed vent system, which is otherwise routed to a control device. These requirements apply when the closed vent system is "operating" and in HAP service. Equipment opening work practice standards

[28] 42 U.S.C. § 7412(h)(2)(A).

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to remove the closed vent system from HAP service apply to the closed vent system when it is not in operation, as well as to individual piping or components that are taken out of service apart from the closed vent system as a whole. We ask that EPA confirm this clear reading of the language in the rule.

Where the potential for confusion arises, however, is with paragraph (h)(3), which states:

> *In vacuum service alarm records and reports.* ***For any incidences where a closed vent system designed to be in vacuum service is not in vacuum service, you must submit to the Administrator as part of your compliance report, the information specified in § 63.11985(b)(10) [deviation report].*** *This report is required even if you elect to follow the procedures specified in § 63.11895 to establish an affirmative defense and submit the reports specified in § 63.11985(b)(11). (Emphasis added.)*

The deviation reporting requirement of paragraph (h)(3) does not appear to recognize that a closed vent system may: (1) operate as a closed vent system in compliance with paragraphs (a) through (g); (2) operate in vacuum service in compliance with paragraph (h); or (3) be out of operation following implementation of the equipment opening procedures.

As written, paragraph (h)(3) not only conflicts with paragraph 63.11930(h) reproduced above, but would require deviation reporting in circumstances where no actual deviation or discharge occurred, because the closed vent system is still in compliance with either paragraphs (a) through (g) or the equipment opening work practice standards. Accordingly, the Working Group suggests the following minor corrections to the language of Section 63.11930(h)(3) (new text is underlined):

> *In vacuum service alarm records and reports. For any incidences where a closed vent system <u>in HAP service</u> designed to be in vacuum service is <u>operating and both</u> not in vacuum service <u>and not meeting the requirements in paragraphs (a) through (g) of this section</u>, you must submit to the Administrator as part of your compliance report, the information specified in § 63.11985(b)(10). This report is required even if you elect to follow the procedures specified in § 63.11895 to establish an affirmative defense and submit the reports specified in § 63.11985(b)(11).*

IX. CPMS (77 Fed. Reg. 22,920–22, 22,945–46; codified at 40 C.F.R. § 63.11940, Table 5)

As currently worded, Table 5 appears to impose broad CPMS requirements even in circumstances when the control technology at issue is not used. Table 5 states this requirement as follows:

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For these control devices, you must monitor these operating parameters . . .

For example, not all thermal oxidizers use catalyst beds, yet under the Thermal Oxidizer subheading, affected sources are required to monitor the temperature differential across the catalyst bed. By comparison, Section 63.11940 makes clear that the parametric monitoring required depends on the specific equipment in use, rather than applying broadly across all configurations that use a particular control device. Similar inconsistencies arise from the Table 5 parameters for absorbers and acid gas scrubbers, on the one hand, and the plain language of Section 63.11940(c) and Table 7, on the other. The Working Group requests that the Agency confirm that Section 63.11940, rather than Table 5, sets out the parameters that "must" be monitored.

X. Recovery Devices

A. CPMS (77 Fed. Reg. 22,914, 22,920–22, 22,940; codified at 40 C.F.R. §§ 63.11925, 63.11940, 63.12005)

The Working Group requests clarification of the recovery device definition. As currently written, it is overly broad, conflicts with the control device definition in certain instances, and imposes CPMS requirements on equipment that are outside the intended scope of the control device definition. Of relevance here, the control device definition makes clear that recovery devices are control devices, but only if they are used to comply with the MACT, *i.e.*, to limit emissions:

> *Control device means, with the exceptions noted in this definition, a combustion device, recovery device, recapture device or any combination of these devices* ***used to comply with this subpart****. Process condensers are not control devices.*[29] *(Emphasis added.)*

In contrast, the "recovery device" definition categorically makes all recovery devices control devices:

> *Recovery device means an individual process component capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. Examples of process components that may be recovery devices include absorbers, adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers (e.g., wastewater steam and vacuum strippers), or thin-film evaporation units. For purposes of this subpart, recovery devices are control devices.*

This raises the question of why a recovery device definition is even needed. More importantly, the regulations treat as "control devices" recovery devices that were

[29] 40 C.F.R. § 63.12005.

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not used to control emissions when data was collected to set the emission limits or will not be used to demonstrate compliance with those limits.

Some recovery devices are used to recover raw material for reuse prior to routing the vent stream to a thermal oxidizer or other "end-of-pipe" control device. Accordingly, these recovery devices would not be used to demonstrate initial compliance or to achieve ongoing compliance, such that they are not "used to comply with this subpart." An example of such a recovery device is a membrane separator vented to the recovery system prior to the thermal oxidizer. PVCPUs equipped with a membrane separator do not need to use the membrane separator to comply with the process vent emission limits. Thus, these recovery devices arguably do not fall within the definition of "control device" and should not be subject to the CPMS requirement of Section 63.11925(c). Yet the recovery device definition makes this unclear. Furthermore, some recovery devices, such as membrane separators, do not have operating parameters that could be monitored by CPMS. For these reasons, we would recommend the following minor revision to the "recovery device" definition (new text is underlined):

> *Recovery device means an individual process component capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. Examples of process components that may be recovery devices include absorbers, adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers (e.g., wastewater steam and vacuum strippers), or thin-film evaporation units. For purposes of this subpart, recovery devices are control devices <u>when used to comply with this subpart</u>.*

B. Process Condenser (77 Fed. Reg. 22,939; codified at 40 C.F.R. § 63.12005)

The Working Group also requests clarification of the process condenser definition. The final rule defines "process condenser" as equipment used in a batch process:

> *Process condenser means a condenser whose primary purpose is to recover material as an integral part of a batch process. All condensers recovering condensate from a batch process at or above the boiling point or all condensers in line prior to a vacuum source are considered process condensers. Typically, a primary condenser or condensers in series are considered to be integral to the batch regulated process if they are capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse or for sale for fuel value, use or reuse....*[30]

[30] 40 C.F.R. § 63.12005.

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Although PVC production is primarily a batch process, the final rule includes both batch and continuous operations within its scope. The Working Group does not believe that the Agency's intent was to make batch process condensers a special case. Accordingly, the Working Group requests that EPA clarify that both continuous and batch process condensers are process condensers under the final rule in the interest of consistency. The Working Group suggests the following minor correction to the definition of process condenser; in relevant part (new text is underlined):

> *Process condenser means a condenser whose primary purpose is to recover material as an integral part of a batch or continuous process. All condensers recovering condensate from a batch or continuous process at or above the boiling point or all condensers in line prior to a vacuum source are considered process condensers. Typically, a primary condenser or condensers in series are considered to be integral to the batch or continuous regulated process if they are capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse or for sale for fuel value, use or reuse....*

XI. Gasholders (77 Fed. Reg. 22,928; codified at 40 C.F.R. § 63.11955)

The Working Group requests that the Agency clarify the requirements applicable to gasholders. The language of Section 63.11955(d)(1) provides as follows:

> *Each gasholder must be vented to a closed vent system and control device meeting the requirements of §§ 63.11925 through 63.11950.*[31]

Most gasholders currently return recovered gas back to an enclosed process for reuse in the manufacturing process. The Working Group requests that the Agency confirm that gasholders are permitted to return the recovered gas back to the process, provided the process is enclosed and ultimately vents to a closed vent system.

XII. Ambient Monitoring

A. Area Monitoring Plan (77 Fed. Reg. 22,928; codified at 40 C.F.R. § 63.11956)

By the plain language of the area monitoring provisions, an affected source is not required to resubmit an area monitoring plan if it has already been approved:

> *You must operate a reliable and accurate vinyl chloride monitoring system for detection of major leaks and identification of the general area of the affected source where a leak is located...You must operate the vinyl chloride monitoring system according to a program that you develop for your affected source. You must submit a*

[31] 40 C.F.R. § 63.11955(d)(1).

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description of the program to the Administrator within 45 days of your compliance date, unless a waiver of compliance is granted by the Administrator, ***or the program has been approved*** *and the Administrator does not request a review of the program. Approval of a program will be granted by the Administrator provided the Administrator finds….*[32] *(Emphasis added.)*

This language mirrors the requirements of the VCM NESHAP for area monitoring:

A reliable and accurate vinyl chloride monitoring system shall be operated for detection of major leaks and identification of the general area of the plant where a leak is located…The vinyl chloride monitoring system shall be operated according to a program developed by the plant owner or operator. The owner or operator shall submit a description of the program to the Administrator within 45 days of the effective date of these regulations, unless a waiver of compliance is granted under § 61.11, ***or the program has been approved*** *and the Administrator does not request a review of the program. Approval of a program will be granted by the Administrator provided he finds….*[33] *(Emphasis added.)*

Thus, it does not appear that the Agency intended to change the area monitoring plan approval requirements from those currently applicable to PVC facilities under the VCM NESHAP. Nevertheless, the phrase "has been approved" raises the question of whether formal or explicit approval must be received, and from what entity, the State or EPA. Currently, PVC facilities operate under an area monitoring plan that was submitted to EPA or the State (where EPA has delegated its Clean Air Act Section 112 authority to the State under Section 112(l) of the Act). In some instances, area monitoring plans were never formally or explicitly approved by either EPA or the States, which in our view, is in keeping with the regulatory language.

The Working Group is aware of at least one instance, however, where an enforcement action was initiated against a facility for failing to obtain prior approval of a plan change. The violation was dropped once the facility demonstrated to EPA that it had submitted the plan change to the State, but the language and scope of the provision continue to cause significant confusion within the industry. Consequently, the Working Group recommends the following minor correction to Section 63.11956 to make clear that submission is required only if the area monitoring plan was not previously submitted to EPA or the State, as appropriate (new text is underlined; deletions are in strikethrough):

You must operate a reliable and accurate vinyl chloride monitoring system for detection of major leaks and identification of the general

[32] 40 C.F.R. § 63.11956.

[33] 40 C.F.R. § 63.65(b)(8)(i).

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area of the affected source where a leak is located…You must submit a description of the program to the Administrator within 45 days of your compliance date, unless a waiver of compliance is granted by the Administrator, or the program has been previously submitted to, and not rejected by, an authorized state, ~~approved~~ and the Administrator does not request a review of the program. Approval of a program will be granted by the Administrator provided the Administrator finds….

B. Test Method for Area Monitoring (77 Fed. Reg. 22,928; codified at 40 C.F.R. § 63.11956)

The PVC MACT provides for calibration of the vinyl chloride area monitoring system in accordance with Method 106 and calls for using a calibration curve in the area monitoring provisions, as follows:

> *…If a gas chromatograph is used as the vinyl chloride monitoring system, these gas mixtures may be directly used to prepare a chromatograph calibration curve as described in Sections 8.1 and 9.2 of Method 106.*[34]

The Working Group believes that single point calibration is adequate for the area monitoring system, and is the current industry standard approved by state monitoring plans. Gas chromatography machines used in the area monitoring system are typically benchmarked everyday with the same vinyl chloride standard used to calibrate the analyzer. The Working Group requests that EPA confirm that single point calibration is acceptable under Method 106 and recommends that the above quoted text be removed from the rule.

XIII. Stripped Resin

A. Grab Samples (77 Fed. Reg. 22,928–29; codified at 40 C.F.R. § 63.11960)

The Working Group requests that the Agency clarify the analysis requirements for non-VC TOHAP grab monthly samples that must be collected during the 24-hour sampling period. Specifically, the Working Group requests that the Agency confirm that, under Sections 63.11960(c)(1)(iii) and (iv), the three grab samples can be composited prior to analysis by the laboratory, as was done pursuant to the PVC MACT Section 114 data collection.

[34] 40 C.F.R. § 63.11956(d)(2).

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B. Site-Specific HAP List (77 Fed. Reg. 22,928; codified at 40 C.F.R. § 63.11960, Table 10)

Under the final rule, the list of site-specific HAPs for stripped resin and wastewater must be "continuously updated."[35] The Working Group believes that the Agency's intent was for the site-specific HAP list to be continuously up-to-date, rather than revised with a specific frequency. The Working Group requests that the Agency confirm that updating the HAP list after any process change that would impact the list of HAPs (*e.g.*, using a new additive) is sufficient to meet this requirement.

XIV. Wastewater

A. Initial Determination (77 Fed. Reg. 22,930; codified at 40 C.F.R. § 63.11965)

The Working Group seeks clarification concerning the use of process knowledge and engineering judgment to identify which wastewater streams must be treated prior to exposure to the atmosphere. Under the current VCM NESHAP, which requires that process wastewaters over 10 ppmw vinyl chloride are treated to 10 ppmw, engineering judgment is used to select those wastewater streams that must be treated. By the plain language of the final PVC MACT, process wastewater streams that are currently treated do not need to be retested to ensure that they require treatment; testing is only required at the outlet of the treatment process to determine if the current treatment is sufficient:

> *For **treated** process wastewater streams, you must collect process wastewater samples **at the outlet of the treatment process** and before the process wastewater stream is mixed with any other process wastewater stream containing vinyl chloride or total nonvinyl chloride organic HAP concentrations less than the applicable limits specified in Table 1 or 2 to this subpart, before being exposed to the atmosphere, and before being discharged from the affected source.*[36] *(Emphasis added.)*

The Working Group requests that the Agency confirm that process streams that are currently treated do not need to be retested prior to treatment as part of the initial determination.

With regards to currently untreated process wastewater streams, the Working Group requests that the Agency clarify that if a currently untreated wastewater stream is analyzed for vinyl chloride concentration in accordance with Section 63.11965(b)(2) and is found to need treatment, the PVC facility does not need to test that wastewater stream for total non-vinyl chloride organic HAP to make the initial determination of whether treatment is required.

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[35] 40 C.F.R. § 63.11960(b).

[36] 40 C.F.R. § 63.11965(b)(1)(i).

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B. Site-Specific HAP List (77 Fed. Reg. 22,930; codified at 40 C.F.R. § 63.11965, Table 10)

Under the final rule, the list of site-specific HAPs for stripped resin and wastewater must be "continuously updated."[37] The Working Group believes that the Agency's intent was for the site-specific HAP list to be continuously up-to-date, rather than revised with a specific frequency. The Working Group requests that the Agency confirm that updating the HAP list after any process change that would impact the list of HAPs (*e.g.*, using a new additive) is sufficient to meet this requirement.

C. Maintenance Wastewater (77 Fed. Reg. 22,930; codified at 40 C.F.R. § 63.11965, Table 4)

Under Section 63.11965(e) of the PVC MACT, affected sources must meet the requirements of 40 C.F.R. § 63.105 for maintenance wastewater. Section 63.105(a), however, references the "organic HAP's listed in table 9 of subpart G of this part," which is a different list of HAPs than those addressed by the PVC MACT. The Working Group does not believe that it was the Agency's intent to apply a different list of HAPs to the maintenance wastewater provision than that used throughout the PVC MACT. Consequently, the Working Group recommends the following minor correction to Section 63.11965(e) to ensure consistency (new text is underlined):

> *Maintenance wastewater. You must comply with the requirements specified in § 63.105 of subpart F of this part. Use the HAP list in Table 10, rather than the HAP list referenced by § 63.105(a).*

The Working Group also requests that the Agency confirm that the references to the startup, shutdown, and malfunction ("SSM") plan in (d) and (e) of Section 63.105 do not apply to the PVC MACT, as SSM plans are not permitted under the PVC MACT.

The Working Group also requests clarification of the "maintenance wastewater" definition as it applies to wash water. Specifically, the "maintenance wastewater" definition at Section 63.12005 sets out:

> *...Examples of activities that can generate maintenance wastewaters include... water used to wash out process components or equipment after the process components or equipment has already been opened to the atmosphere and has met the requirements of § 63.11955.*

The Working Group believes that any water used to wash out process components or equipment, after the component or equipment has met the opening requirements in Section 63.11955, is classified as maintenance wastewater. The maintenance wastewater definition would apply whether or not actual repairs or any other activity involving the component or equipment has been performed. This would include wash water used on components or equipment prior to inspection and normal washout

[37] 40 C.F.R. § 63.11965(f).

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between batches or products. We request that EPA confirm this interpretation of the definition of maintenance wastewater.

D. Wastewater Compliance Reports (77 Fed. Reg. 22,933; codified at 40 C.F.R. § 63.11985, Table 4)

In a similar vein, the wastewater information that must be included in compliance reports is also difficult to understand due to unclear incorporation of the Part 63 General Provisions. As currently written, the PVC MACT leaves the affected source to determine what information is "applicable," as the scope of the General Provisions cited does not clearly match that of the PVC MACT:

> *If you must comply with § 63.11965, then you must include any other applicable information that is required by the reporting requirements specified in § 63.146.*[38]

The Agency's intent regarding this provision is unclear, and the Working Group requests that the Agency clarify what other wastewater information must be included in compliance reports.

E. Process Wastewater (77 Fed. Reg. 22,940; codified at 40 C.F.R. § 63.12005)

In the final rule, a new term was added: "process wastewater." PVC facilities reuse large volumes of process water, which should not be considered wastewater. The potential confusion arises from the broad definition of process wastewater, which includes water from numerous activities, but does not clearly exclude water that is reused:

> *Process wastewater means wastewater that comes into direct contact with HAP or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product containing HAP, but that has not been discharged untreated as wastewater. Examples are product tank drawdown or feed tank drawdown; water formed during a chemical reaction or used as a reactant; water used to wash impurities from organic products or reactants; water used to cool or quench organic vapor streams through direct contact; water discarded from a control device; and condensed steam from jet ejector systems pulling vacuum on vessels containing organics. Gasholder seal water is not process wastewater until it is removed from the gasholder.*[39]

Logically, the definition of process wastewater is limited to water that is in fact wastewater (*i.e.*, waste), rather than water that is intended to be reused in the

[38] 40 C.F.R. § 63.11985(b)(8)(ii).

[39] 40 C.F.R. § 63.12005.

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manufacturing process. The definition of wastewater, however, only includes a circular reference back to process wastewater and maintenance wastewater:

> *Wastewater means process wastewater and maintenance wastewater. The following are not considered wastewater for the purposes of this subpart….*[40]

The Working Group requests that the Agency confirm that water that is reused within the PVCPU is not process wastewater and, therefore, is not subject to the process wastewater requirements. The Working Group also requests that the Agency confirm that process wastewater that meets the process wastewater emission limits (either without treatment or after treatment) can be reused in the PVCPU without restriction.

F. Dewatering Equipment (77 Fed. Reg. 22,930, 22,940; codified at 40 C.F.R. §§ 63.11965, 63.12005)

The Working Group seeks clarification on the requirements applicable to water removed during the dewatering and drying of stripped resin. To place this question in proper context, it is necessary to consider the resin stripping process, which precedes dewatering and drying.

The PVC MACT requires that resin is steam stripped to reduce the air emissions of vinyl chloride and other HAP from downstream processes. The material resulting from the stripping process is defined by the rule as stripped resin:

> *Stripped resin means the material exiting the resin stripper that contains polymerized vinyl chloride.*[41]

As EPA recognizes, stripped resin can either exit the stripper in liquid form, also referred to as resin slurry, or as a solid:[42]

> *… **at the outlet of the stripper, the resin is in either a slurry (liquid) or dry (solid) form**, as opposed to a gaseous stream, as is the case for process vents.*[43] *(Emphasis added.)*

Stripped resin is stored in feed tanks open to the atmosphere after stripping. These feed tanks are not in HAP service because the stripped resin limits have been met (taking the HAP concentration well below five percent by weight) and, therefore, the storage vessel requirements of Section 63.11910 do not apply. The Working Group requests that the Agency confirm this plain reading of the final rule.

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[40] 40 C.F.R. § 63.12005.

[41] 40 C.F.R. § 63.12005.

[42] Stripped resin exiting the stripper at all PVC MACT Working Group member facilities is a slurry.

[43] 77 Fed. Reg. 22,867.

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Stripped resin is then piped from the dryer feed tanks to several types of equipment used to remove water (centrifuge, filter press, dryer, etc.), a process called dewatering and drying. This process is distinct from resin stripping, as is clear from the definition for resin stripper:

> *Resin stripper means a unit that removes organic compounds from a raw polyvinyl chloride and copolymer product. In the production of a polymer, stripping is a discrete step that occurs after the polymerization reaction* ***and before drying or other finishing operations****. Examples of types of stripping include steam stripping, vacuum stripping, or other methods of devolatilization.* ***For the purposes of this subpart, devolatilization that occurs in dryers or other finishing operations is not resin stripping****. Resin stripping may occur in a polymerization reactor or in a batch or continuous stripper separate from the polymerization reactor where resin stripping occurs.*[44] *(Emphasis added.)*

Water removed during the dewatering and drying process is often reused in the manufacturing process. As discussed in the previous section, water that is reused is not process wastewater and is not subject to the process wastewater limits. Some water removed during the dewatering and drying process, however, is discharged to the wastewater treatment process as wastewater, and is subject to the wastewater requirements of the PVC MACT. The Working Group requests that the Agency confirm that this understanding of the requirements applicable to water removed during dewatering and drying is correct.

XV. Test Methods (77 Fed. Reg. 22,948; codified at 40 C.F.R. Part 63, Subpart HHHHHHH, Table 10)

The test methods for HAPs identified in Table 10 are not, in some cases, the only or even the preferred methods used by commercial laboratories. For example, Table 10 identifies Method 8015C for ethylene glycol, although Method 8260B is, in practice, the method used by some commercial laboratories. Although the Part 63 General Provisions procedure for validation and use of an alternative test method (40 C.F.R. § 63.7(f), which incorporates Method 301) is identified by Table 4 of the final rule as applicable to the PVC MACT, the Working Group requests that EPA also allow NELAP-certified[45] laboratories to add additional analytes, following demonstration of method-specific performance criteria, to the PVC MACT listed SW-846 methods, as well as allow NELAP-certified laboratories to validate and use alternative test methods for testing required by the PVC MACT.

* * *

[44] 40 C.F.R. § 63.12005.

[45] "NELAP-certified" refers to laboratories accredited by the National Environmental Laboratory Accreditation Program administered by the NELAC Institute. *See* The NELAC Institute's website (http://www.nelac-institute.org/index.php) for more information.

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We appreciate the Agency's willingness to consider the issues set out above. For ease of reference, we include below a table of the topics discussed in this letter. We look forward to meeting with the appropriate staff members to discuss clarifications and guidance after the Agency has taken time to review the many issues raised in this letter. As you know, the timing of the Agency's action on reconsideration is increasingly critical as Working Group members must develop plans to implement the PVC MACT, and the compliance deadlines associated with the 2012 final rule remain in effect. In the interim, please do not hesitate to contact me if you have any questions on these issues, or require any additional information.

Sincerely,

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