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OFFICE OF
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COMPLIANCE ASSURANCE

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Dear Counsel Keane and Director Darling:

This is in response to your letter of June 28, 2004, requesting a formal Environmental Protection Agency (EPA) response to several questions on 40 CFR Part 63, Subpart HHHHH, the Miscellaneous Coatings Manufacturing (MCM) Maximum Achievable Control Technology (MACT) standard and 40 CFR Part 63, Subpart FFFF, the Miscellaneous Organic National Emissions Standard for Hazardous Air Pollutants (MON), which have been raised and discussed with both my office and the Office of Air Quality Planning and Standards (OAQPS). It is my understanding that the text of these questions and answers will be used by the National Paints and Coatings Association (NPCA) to develop a Question and Answer Compliance Guide (Q&A) for your members to facilitate implementation of the rule.

NPCA Question #1:

At 68 FR 69194 of the final MCM rule (found in the middle column under the definition of process vessel vent) it states:

> Emission streams that are undiluted and uncontrolled containing less than 50 ppmv HAP, as determined through process knowledge that no HAP are present in the emission stream or using engineering assessment as discussed in Section 63.1257(d)(2)(ii), test data using Method 18 of 40 CFR Part 60, appendix A, or any other test method that has been validated according to the procedures in Method 301 of the appendix A of this part, are not considered process vessel vents.

Does this mean that process knowledge can be used if there are no hazardous air pollutants (HAPs) present in the coating being manufactured? If there are HAPs present above the 5 percent cut-off, can the source use engineering assessment or other test methods referenced in the rule to demonstrate that any undiluted and uncontrolled streams are less than 50 ppmv?

How does the source determine the HAP concentration for a vent header that has multiple pickups which could include direct tie-ins to process vessels and flexible elephant trunks? For example, can the source measure the combined vent stream at the dust collector outlet, and if it is below 50 ppmv, can it be completely exempted from the rule? Or does the source have to quantify the HAP concentration for the vent lines connected directly to process vessels? Can the source use the "sweep" equation in the new Emission Inventory Improvement Program (EIIP) to determine the concentration for each individual vessel vent? The definition of process vent specifically allows Method 301, but does not reference the EIIP calculations.

EPA Response to Question #1:

Process knowledge can be used if no HAPs are present in the coating being manufactured; otherwise, use engineering assessment per Section 63.1257(d)(2)(ii) of the Pharmaceutical (PhRMA) MACT; test data using Method 18 of 40 CFR Part 60, Appendix A; or any other test method that has been validated according to the procedures in Method 301 of the Appendix A of this part.

The 5 percent cutoff relates to coatings complying through the pollution prevention (P2) option at Section 63.8055. The P2 option is a method of compliance that the owner/operator (o/o) chooses and then demonstrates compliance in accordance with Section 63.8055(b). Under this option, if o/o demonstrates that the HAP content of the coating is less than 5 percent, then control is not required for emissions from the process vessels that are used to make that coating, and there is no need to determine the HAP concentration in the process vessel vent emission streams. Note, however, that other requirements (e.g., requirements for storage tanks or equipment leaks) may still apply.

For vent headers with multiple pickups, you can use process knowledge and engineering assessment to determine the 50 ppmv threshold. This includes the EIIP equations. It would also be permissible to measure the combined vent stream at the dust collector outlet; if it is below 50 ppmv, you must also determine that this concentration has not been achieved by dilution. This means you must determine that none of the process vessel vent streams feeding the vent header has HAP concentrations greater than 50 ppmv. If the HAP concentration in any of the individual process vessel vent streams is greater than 50 ppmv, either that stream or the combined stream must be controlled.

NPCA Question #2:

Subpart FFFF, the Miscellaneous Organic National Emissions Standard for Hazardous Air Pollutants (MON), excludes "flexible elephant trunk systems that draw ambient air (i.e., systems that are not ducted, piped, or otherwise connected to the unit operations) away from operators that could be exposed to fumes when vessels are opened" from the definition of "batch process vent." The key to this seems to be that the ventilation system must not vent any emissions from the vessel when the vessel is sealed. One of NPCA's member companies has a fixed, slotted hood near the manway of the vessel to provide ventilation to minimize operator exposure to the chemicals when the manway is opened for small quantity additions to the vessel. When the manway is closed, the slotted hood vents general room air, and emissions from the sealed vessel are routed to the control device. Is the fixed, slotted hood design excluded from the definition of "batch process vent"?

Subpart HHHHH contains a similar provision. For coatings vessels, charging chutes with the slot ventilation either can be fixed permanently to the tank or can be placed over a hatch for the charging operation. In either case, the ventilation is only "on" during the charging operation. Can EPA verify that a vent line from an external charging chute would NOT be a process vessel vent?

EPA Response Question #2:

The Agency believes that these would be similar to the operation of flexible elephant trunks. Also, as discussed in our December 5, 2003, memo to Mr. Darling, we intend to propose amendments to the MCM rule to clarify that hatch and manway openings are allowed for sampling and product addition. Therefore, ventilation which occurs during these operations would not considered a process vent, regardless of the capture system design.

NPCA Question #3:

NPCA has received some questions from our member companies on the overlap issue between the MON and the MCM. The definition of a miscellaneous organic chemical manufacturing unit (MCPU) from Section 63.2550 references all equipment used to manufacture materials described by Section 63.2435(b). Section 63.2435(b) lists the manufacture of organic chemicals and organic solvents by Standard Industrial Classification (SIC) and National American Industry Classification System (NAICS), including 285 and 289, which are the paint and allied products and the adhesives and ink categories. Are SIC 285 and 289 supposed to still be listed in the MON, or is this just a remnant of the fact that the MON and the MCM were combined at proposal? If a major source makes both resins and coatings, would the source have to comply with both the MCM and the MON? Conversely, if the source only manufactures coatings, would the source only have to comply with the MCM? Is there a difference between MCPU's and miscellaneous coating manufacturing processes (MCMP's) for this distinction?

EPA Response #3:

The Agency included those SIC codes in the MON rule as our floor analysis indicated that some paint manufacturers and some adhesive manufacturers produce miscellaneous organic chemicals which are not coatings and would be covered under Subpart FFFF, the MON. In response to the second question, if a facility makes coatings, and does not make resins, then it only complies with Subpart HHHHH, the MCM. If a facility makes both coatings and resins, it would have to comply with the MON for equipment producing resins and the MCM for equipment producing coatings. A more detailed response to handling overlapping requirements and multi-purpose equipment is provided in the response to question number seven, below. With respect to MCPUs and MCMPs, the MCM rule applies to all coating manufacturing operations at the facility and does not identify a process unit. Also, please note that the term MCMP is neither used nor defined in the MCM rule.

NPCA Question #4:

Are solvent recovery units at coatings facilities where there is no resin production covered by the MON? These recovery units would not be receiving solvents from MCPU's since there is no chemical production at the facility. However, since the SIC/NAICS for paint production is listed in the MON as chemical production (see NPCA question #3 above), would these solvent recovery units be subject to Subpart FFFF? NPCA does not believe that this is what was intended by the rule. If EPA determines that solvent recovery units at coatings facilities would be covered by the MON, NPCA would like to know the rationale for the decision and would like to have some language discussing the issue placed in the MCM technical/clarifying amendments. With the exception of the one response to comment placed in the final MON rule, NPCA members were totally unaware that MON standards could apply to units at non-chemical production facilities, so this will be a new issue for MCM facilities. Any guidance the Agency could provide would be greatly appreciated.

NPCA offers the following rationale as to why we believe these solvent recovery units would not be subject to the MON. These units receive solvent only from equipment that is covered by Subpart HHHHH. Subpart FFFF defines a nondedicated solvent recovery operation as "a distillation unit or other purification equipment that receives used solvent from more than one MCPU." To meet this definition, it must receive solvent from more than one MCPU. To meet the definition of an MCPU, a coatings process must meet all three criteria under Section 63.2435(b)(1)-(3).

Coatings process equipment would meet the first criteria (producing one of the described products), since even though the proposed rule was separated into distinct manufacturing standards – one for coatings and one for chemicals – the SIC and NAICS for coatings are still included in the Subpart FFFF definition of MCPU. The second would be true as well, since coating process units would be using HAPs. The third criteria, however, that "the MCPU is not an affected source or part of an affected source under another subpart of this Part 63," would fail since the coating process equipment is under another subpart of Part 63 – Subpart HHHHH. In previous discussions with EPA, the Agency has clarified that Subpart HHHHH applies to all coating manufacturing operations and does not identify a process unit. Coating manufacturing operations are subject to Subpart HHHHH; thus, they do not meet the definition of an MCPU under Subpart FFFF. Therefore, a distillation unit or other purification equipment at a coatings manufacturing facility would not be receiving solvent from any MCPU's so it would not be subject to Subpart FFFF standards.

There is a policy aspect of this as well. The burden of a "coatings only" facility to have 1 (one) piece of equipment that must meet 98 percent control while the rest of the facility has to get only 75 percent is unreasonable. Additionally, the added burden of being subject to another MACT standard is also unreasonable. If this is to be the case, most facilities will choose to shut down their units and send the used solvent off-site for recycling or simply dispose of it. This would certainly limit and discourage future solvent recycling, something that EPA's pollution prevention and waste minimization efforts actually encourage.

EPA Response #4:

The rule applies to non-dedicated solvent recovery operations recovering solvent from processes units subject to the MON. These operations include the SIC and the NAICS codes defined at Section 63.2450(b)(1)(i). As written, the rule only applies to MCPU's; since facilities subject to Subpart HHHHH do not have MCPU's, non-dedicated solvent recovery operations at those facilities would not be covered. However, as discussed in the response to Question #3 above, certain operations in SIC 285 and 289 may produce products subject to the MON. If there is an MCPU at one of those facilities, and a non-dedicated solvent recovery operation which receives spent solvent from that MCPU, then the non-dedicated solvent recovery operation would be subject to Subpart FFFF.

NPCA Question #5:

NPCA has been receiving questions from its members as to the possible overlap of the Organic Liquids Distribution (OLD) MACT for drum and container filling operations at MCM and MON operations. It has been the Association's understanding since an October 18, 1999, email from Martha Smith of EPA to NPCA that it would be the MON (and subsequently the MCM), not the OLD, that would cover all transfer operations related to the coatings manufacturing industry. In the floor analysis for both the MON and MCM, EPA evaluated drum and container filling operations as part of the affected facility and determined that controls on

drum and container filling operations were not cost effective[1], therefore, only bulk loading controls for the MON and MCM were subject to standards.

The OLD applicability (Section 63.2338) states that storage tanks, transfer racks and equipment leak components that are part of an affected source under another 40 CFR Part 63 NESHAP are excluded from the OLD affected source. In addition, Section IV of the OLD preamble (69 FR 5043) EPA states that the OLD rule will not regulate any emission sources that are part of another 40 CFR Part 63 MACT rule-affected source, regardless of whether those sources are actually controlled.

Section II of the MCM preamble at 68 FR 69166 states that the affected source for the miscellaneous coatings manufacturing source category includes transfer operations. Likewise, Section II of the MON preamble at 68 FR 63854 states that the affected sources subject to the MON include transfer operations. For both the MCM and MON, EPA determined that there were no feasible or cost-effective beyond-the-floor alternatives for filling of containers at existing sources. As a result, the OLD does not apply to transfer operations at MCM and MON facilities even though these sources are not controlled.

Based on this, we do not believe that the OLD applies to drum and container filling operations at either MON or MCM operations. Is this correct?

EPA Response #5:

That is correct; OLD does not apply to drum and container filling operations at either MON or MCM operations. EPA considered all storage, including drums and containers, as part of the affected facility under Subpart HHHHH and Subpart FFFF, In the floor analysis of the MCM, we also evaluated filling of containers at MCM operations at existing sources and determined that the floor was no control with no cost effective or feasible beyond the floor alternatives. We clarified at Section 63.2338(c)(1) of the final OLD rule that storage tanks, transfer racks, and equipment leak components that are part of an affected source under another 40 CFR Part 63 NESHAP are excluded from the definition of affected source, even in cases where the other rule does not require a reduction in emissions from the emissions source.

We plan to propose amendments to the MON and MCM rules to clarify that filling containers is a Group 2 transfer operation. If such amendments are finalized, since Section 63.7985(b)(4) already specifies that transfer racks that are assigned to the MCM operations are part of the affected source, filling containers will be exempt from the OLD rule under Section 63.2338(c)(1).

NPCA Question #6:

NPCA has received questions regarding whether the addition of process equipment subsequent to the rule's promulgation would be considered new or existing.

The MCM defines an affected source at Section 63.7990 as new if you commenced construction or reconstruction after April 4, 2002 (the date of the proposed rule, not the date of the final rule). The MCM defines construction at Section 63.8105 as the "onsite fabrication,

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[1] The Agency does not consider cost in its floor analysis. As a beyond the floor analysis for filling of containers at existing sources, we did evaluate cost and determined that there were no cost effective or feasible beyond the floor alternatives.

erection, or installation of an affected source." "Addition of new equipment to an affected source does not constitute construction, but it may constitute reconstruction of the affected source if it satisfies the definition of reconstruction in Section 63.2 of the General Provisions".

The General Provisions define reconstruction as:

> . . . the replacement of components of an affected or a previously nonaffected source to such an extent that: (1) the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and (2) it is technologically and economically feasible for the reconstructed source to meet the relevant standard. . . .

Thus, the addition of some process equipment would generally not meet the definition of construction or reconstruction and would not be subject to the new source standards. Is that correct? With respect to reconstruction, does the 50 percent of the fixed capital cost of a comparable new source refer to the cost for a whole new plant or just the process operation that you are adding components to?

EPA Response #6:

The addition of new process equipment to the affected facility does not automatically subject the affected facility to new source standards. It is possible to add new equipment without triggering new source requirements. Greenfield construction of a new affected source or reconstruction, as defined in Section 63.2, would trigger new source requirements. Reconstruction is compared to the affected facility. For the MCM, the affected facility is all coating manufacturing operations and associated equipment. So, the o/o would use the facility-wide coating manufacturing equipment as the cost basis for reconstruction.

NPCA Question #7:

The following questions have to do with the overlap of the Subpart FFFF with Subpart HHHHH on a facility-wide or applicability basis.

In one example, a facility classified as a major source has two reactors to produce coatings such as moisture cure polyurethanes. The rest of the facility is dedicated to standard coating manufacturing (i.e., mixing, milling, etc.). As NPCA understands from reading 40 CFR Part 63 Subpart FFFF and Subpart HHHHH, this facility will fall under both the Miscellaneous Organic Chemical Manufacturing and Miscellaneous Coating Manufacturing MACT standards. Is this assumption correct?

In another example, what would be the compliance approach for a facility that is primarily a mixing and blending operation if it also has some limited polymer production? Would this source follow the nonreactive requirements for emissions capture (Subpart HHHHH), the reactive regulations (Subpart FFFF), or a combination of the two? Would the response be different if there were a more even distribution between reactive and nonreactive activities?

Lastly, can a facility choose to comply with Subpart FFFF for the entire facility instead of complying with both Subparts HHHHH and FFFF? If a resins facility makes a small percentage of products that are sold directly to customers as coatings, are they also subject to Subpart HHHHH? To simplify things, can the facility choose to comply with Subpart FFFF and ignore Subpart HHHHH? Does it matter if the coatings are made in dedicated equipment versus

equipment that also makes traditional resins? NPCA believes that the answer to these questions of overlap are in Section 63.2535(l), but since that section does not directly address overlap with Subpart HHHHH, it is not clear.

NPCA believes that Subpart FFFF will cover the reaction vessels if they are making an intermediate product (an ingredient into the coating, but not the coating itself). Subpart FFFF will end there and Subpart HHHHH will take over for the rest of the operations. If, however, the reactors actually make the polyurethane coating itself, the entire process and all associated equipment would be considered one MCPU and would be covered by Subpart FFFF. Subpart HHHHH would still cover the standard coating (non-reaction) processes. Whether or not minor operations at a coating facility (as opposed to chemical operations co-located with coating operations at a facility) would be subject to both Subparts FFFF and HHHHH will probably have to be made on a case-by-case basis, but NPCA would like guidance on this. Similarly, the rules are silent as to whether the source can choose to comply with one rule for the entire facility instead of both since Section 63.2535(l) does not address overlap with Subpart HHHHH.

EPA Response Question #7:

The product of the process determines the rule applicability. It does not matter if the same equipment is used to make resins as is used to make coatings. For example, a reactor that makes a resin would be subject to Subpart FFFF when making that resin and would meet the definition of an MCPU. Since it is a Subpart FFFF affected facility, it would not be a Subpart HHHHH affected facility because Section 63.7985(b)(4) excludes operations if they are part of another affected facility under Part 63. However, when the same reactor is making a coating, it would be subject to Subpart HHHHH as it is no longer subject to Subpart FFFF, no longer part of the Subpart FFFF affected facility, and, therefore, no longer subject to the exclusion at Section 63.7985(b)(4).

In the situation you describe where a facility has mixing and blending as well as polymer production, the facility would be subject to Subpart FFFF for the polymer resin production. You did not provide enough information about the mixing and blending operations to determine applicability of that process, but if the polymer resin is subsequently used to produce moisture cure coatings, the operations involved in that subsequent process would be subject to Subpart HHHHH. Please note however, that the presence or absence of reactions in the vessel has no bearing on applicability of the standards, nor does the "distribution" of activities between the two standards. In other words, we do not use the concept of primary use for multi-purpose equipment, unless the source chooses to develop a process unit group (PUG) from the shared equipment, as discussed below.

A facility cannot choose to comply with one standard or the other for the entire facility. All equipment must comply with Subpart FFFF when meeting the applicability of Section 63.2435, and must comply with Subpart HHHHH when meeting the applicability of Section 63.7985, unless you develop a PUG. Section 63.2535(l) describes how to develop a PUG and how to determine the primary product. Additionally, Section 63.2525(l)(3)(ii)(C) discusses the primary product determination for subparts other than Subparts GGG (Pharmaceutical Production) and MMM (Pesticide Active Ingredient Production). If the primary product of the PUG is subject to any other subpart of Part 63 rule besides Subparts GGG or

MMM, for example, Subpart HHHHH, then the facility would comply with Subpart HHHHH for all equipment in the PUG except for the MCPU. The MCPU must comply with the MON.

This is discussed as well in the MON Response to Comments (RTC) on page 15-8 and 15-9 where we state:

> Although we consider it unlikely, it is possible that the primary product of a PUG, as determined according to the procedures in subpart FFFF, could be material subject to another [other than GGG or MMM] MACT rule .... In this case, subpart FFFF only requires compliance with subpart FFFF for the MCPU(s) in the PUG.

Also, on page 15-12 of the MON RTC we state:

> If the primary product for the shared equipment is material subject to subpart FFFF, then the final rule handles overlapping requirements between subparts FFFF and HHHHH the same as described above for overlap between subpart FFFF and other part 63 rules. Otherwise, each rule applies whenever an applicable operation is performed in the vessel.

With respect to NPCA's last comment, we agree that the presence of an intermediate would mark the end of the process and would be used to determine where Subpart FFFF left off and Subpart HHHHH took over. If the final product were the coating, the entire process would be subject to Subpart HHHHH, based on our previous comment that the product of the process determines applicability. We agree that a determination of whether minor operations at a coating facility (as opposed to chemical operations collocated with coating operations at a facility) would be subject to both Subparts FFFF and HHHHH should be made on a case-by-case basis. The Agency has a formal procedure for evaluating requests for determinations of applicability as described in EPA Document Number 305-B-99-004: "How to Review and Issue Clean Air Act Applicability Determinations and Alternative Monitoring", February 1999.

NPCA Question #8:

The issue pertains to the term "process unit" in the MON and how broadly the EPA interprets this. Basically, where would an affected source draw the line for controls and measurement of control efficiency for a process that involves multiple reactors, tanks and operations?

For example, a facility manufactures a chemical that requires a filtration operation. The filtering step uses a HAP solvent which is exhausted, but currently is not controlled. The entire manufacturing process involves a number of steps. The material is made in a reactor; from there it is pumped to a holding tank, and it is subsequently pumped to a filtering unit which uses methanol as a wash solvent. All the equipment to manufacture and process this chemical is within the same area. The filtering unit is a stand-alone filtration unit and it is at this equipment/operation that the vast majority of HAP emissions occur. Would EPA consider the reactor, holding tanks and filtration unit individual process units, or is the entire manufacturing process considered the process unit?

It is our understanding that the rule is written broadly to capture all activities or units that go into making a chemical or intermediate. The rule states at Section 63.2435, that an o/o is subject to the rule if they own or operate an MCPU, which includes "equipment to operate a miscellaneous organic chemical manufacturing process."

This includes:

> any assigned storage tanks and product transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors and instrumentation systems . . .

that are used to manufacture organic chemicals, certain ammonium compounds, certain organic solvents, and hydrazine. Section 63.2550 defines MCPU as all equipment which collectively function to produce the above stated products. In the definition, EPA states that:

> for the purposes of this subpart, process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce the product or isolated intermediate.

Thus, a facility has to determine what equipment/operations are necessary to produce the product from the reaction phase to the end of the manufacturing process. It is NPCA's understanding that anything included in this determination would be subject to control requirements.

EPA Response Question #8:

In the situation that NPCA describes above, the process would include the reaction steps, the holding tank and the filtration unit which produce a product or isolated intermediate. EPA defined the term "isolated intermediate" to mark the end of a process. The concept of an isolated intermediate is to identify a repeatable sequence of processing steps to yield a material that is stable and subsequently stored before further processing. The isolated intermediate may or may not be a commercial product at the point of storage. Any processing steps which are required for the production of the isolate intermediate would be considered part of the MCPU for that product or isolated intermediate.

NPCA Question #9:

NPCA has been receiving member questions on the MCM leak detection and repair (LDAR) provisions, specifically the Section 63.8015(b) language:

> The requirement in §63.424(a) to inspect each piece of equipment during the loading of a gasoline cargo tank means when the equipment is operating in organic HAP service for the purposes of this subpart.

NPCA finds this language confusing since it appears to require operators to continuously inspect all equipment since most equipment is operating in organic HAP service 24 hours per day. Another reading is that only equipment associated with "paint and coatings cargo tanks" would have to be inspected during loading operations when the loading operation is in organic HAP service. NPCA believes that it is the monthly inspection requirement of Section 63.424(a) that the Agency is referencing and that the cargo tank provisions from the Gasoline Distribution MACT are not applicable. Could EPA please clarify the requirements of the Section 63.8015(b) language?

EPA Response Question #9:

The monthly inspection requirements specified in Section 63.424 of the Gasoline Distribution MACT apply to all components, not only those associated with cargo tanks and transfer operations. Accordingly, under Section 63.8015(b) each piece of equipment must be inspected on a monthly basis when it is operating in organic HAP service. The Agency plans to propose a clarification to this provision in the proposed amendments to the MCM rule.

NPCA Question #10

NPCA has been reviewing the draft MCM flow charts developed by the joint NPCA/EPA workgroup. What is the definition of "impurity" or the requirement of the provision in the definition of a storage tank under the MCM that if HAP is only present as an impurity in the stored liquid then it is not a storage tank?

EPA Response Question #10

The use of the term impurity originated in the Hazardous Organic NESHAP (HON) rule and is defined at Section 63.101 as "a substance that is produced coincidentally with the primary product, or is present in a raw material. An impurity does not serve a useful purpose in the production or use of the primary product and is not isolated." It is used in Subpart HHHHH to address known impurities in feedstock that is not off-spec. Also, impurities would be at such low concentration that, even without quantifying partial pressures, the likelihood of affecting applicability is very low. Vessels storing organic liquids which contain HAP only as an impurity are not considered storage tanks under the rule.

NPCA Question #11

Questions have arisen within our member organization about developing maximum true vapor pressures for stored liquids. Section 63.111 has several options. We have tried to get information from the National Weather Service; however, the data appears to be spotty at best, and the other options are proprietary and cost-prohibitive. Does EPA have a database (maybe in the "TANKS" program), or is there an easier way to determine the highest calendar-month average temperature for a given city?

EPA refers to Section 63.111 for the definition of maximum true vapor pressure as follows: Maximum true vapor pressure means the equilibrium partial pressure exerted by the total organic HAPs in the stored or transferred liquid at the temperature equal to the highest calendar-month average of the liquid storage or transfer temperature for liquids stored or transferred above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored or transferred at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss From External Floating-Roof Tanks (incorporated by reference as specified in Section 63.14 of Subpart A of this part); or

(2) As obtained from standard reference texts; or

(3) As determined by the American Society for Testing and Materials Method D2879-83 or 96 (incorporated by reference as specified in Section 63.14 of Subpart A of this part); or

(4) Any other method approved by the Administrator.

EPA Response #11:

Monthly maximum temperatures can be obtained from the data menu in TANKS.

NPCA Question #12:

Table 1 of Subpart HHHHH describes the emissions limits and work practice standards for process vessels. Item 2 of Table 1 describe the requirements for stationary process vessels at an existing facility. Item 2.a.i states that the source must equip the vessel with a cover and reduce emissions by greater than or equal to 75 percent considering both capture and control. Item 2.b.(i-iii) and 3.a.(i-iii) state that you must equip the vessel with a tightly fitting vented cover and reduce emissions by greater than or equal to 60 percent, 75 percent or 95 percent, respectively by venting through a closed-vent system. NPCA has been receiving member calls with respect to what process tank configurations constitute "2.a." (Cover and Capture/Control) and what systems constitute "2.b." or "3.a." (Vented cover and closed vent system). Given that our industry has numerous process tank designs it is difficult to make these determinations without EPA guidance.

NPCA believes from reviewing the rule's language, Table 1 and the Flow Chart for Process Tanks recently drafted by the Subpart HHHHH compliance workgroup, various types of vented systems would constitute 2.b./3.a. systems. Most members would like to dispense with the capture and control requirements since this could be very burdensome for every tank and does not lend itself to the alternative compliance option of averaging across process tanks. Thus, even where a 2.a. system now exists, standard vent designs may assist members in retrofitting tanks to meet 2.b./3.a. requirements. While general room ventilation systems (collecting air and emissions at discreet locations throughout the process area) would be considered 2.a. since the air intakes are not directly connected to the process vessels, the addition of vented covers would then constitute 2.b./3.a. Thus, once those vents were routed through a closed system to a control device, compliance would be a 60 percent, 75 percent or 95 percent reduction, respectively, without considering capture. NPCA believes that vented systems are EPA's preference as well, since they are the only systems available to new sources, which require the most stringent standards.

Vented covers in our industry can generally be grouped into two vent type groups – direct and air bleed. Direct vent designs can be problematic both because of the potential for fire spreading from tank-to-tank and because they cause additional solvent to evaporate. Both conditions create a higher risk of fire and explosion and create solvent loss, which costs a facility in valuable raw material product loss.

To counter the threat of fire and explosion as well as solvent evaporation loss, air bleed systems are commonly used to keep the concentration in the duct below 25 percent of the lower explosive limit (LEL) by introducing fresh air to the duct. For added safety, many facilities include a break in the vent; however, negative pressure and flow are maintained to collect emissions emitted from the tank. The air bleed vents have an added benefit in that for tanks with particulate emissions, the fresh air also helps maintain conveying velocity for the particulates so they do not settle in the duct before being removed which keeps the duct clean and operating as designed. Air bleed vents also can be adjusted to keep the pressure on the tanks to the lowest amount needed to capture emissions while minimizing the creation of evaporative solvent loss.

Below are descriptions of example types of vent configurations that our member companies may use under Subpart HHHHH to meet the 2.b./3.a. standard. Compliance systems for process tanks under Subpart HHHHH are not limited to these examples alone. Instead, these examples are provided for general compliance assistance interpretation. Other systems may also be used. We would like EPA's interpretation as to whether these vent configurations meet the requirements of the Table 1 2.b./3.a. standard.

1. "Hat or Mini Vent"

   A "Hat or Mini Vent" system would be a Table 1 2.b./3.a. configuration since the cover is vented. Tank emissions would then be routed through a closed vent system to the control device in compliance with 2.b.(i-iii)/3.a.(i-iii). The mini vent hood is just above the tank vent and collects any emissions from the tank vent. This configuration provides a break in the vent for fire protection. It also has the advantage of reducing the evaporative losses because it only collects solvents that evolve from the tank. Flow in the mini vent duct is between 100 to 200 CFM. This is about 10 to 20 times the maximum flow rate from the tank during filling (80 gallons per minute = 12 CFM). This flow differential creates negative pressure and a high capture velocity to the vent duct. Since the duct is under negative pressure until the flow reaches the control device, the duct is exempt from Subpart SS.

2. "Conical Air Bleed"

   A "Conical Air Bleed" system is similar to a "Hat or Mini Vent" system. The duct hood cone could be physically attached to the tank vent and screen material may be used to further control flow from the tanks to a control device. Like the Hat or Mini Vent, this configuration would be a Table 1 2.b./3.a. since the cover is vented. Emissions would then be routed through a closed vent system to the control device in compliance with 2.b.(i-iii)/3.a.(i-iii). This system provides a break in the vent for fire control and to reduce solvent evaporations from the tank. Since the duct is under negative pressure until the flow reaches the control device, the duct is exempt from Subpart SS.

3. "T Air Bleed"

   In the "T Air Bleed" the cover is vented (2.b./3.a.), and the emissions are routed through a closed vent system to the control device (2.b.(i-iii)/3.a.(i-iii)). However, a "T" bleed vent is included to draw in general air. The T-bleed is functionally the same as the conical air bleed. Its advantage is that flow is easily adjusted using orifice plates on the intake and it can be easily cleaned. Since the duct is under negative pressure until the flow reaches the control device, the duct is exempt from Subpart SS.

4. "Fixed Vent"

   A "Fixed Vent" system would also be a 2.b./3.a. configuration since the cover is vented. Emissions would then be routed through a closed vent system to the control device in compliance with 2.b.(i-iii)/3.a.(i-iii). The duct may or may not be under negative pressure.

EPA Response #12:

To clarify, the percent reduction standard inherently includes capture efficiency. This is discussed in detail in the background document in response to comments on page 5-4 where we state:

> [W]hile we recognize that the ICR did not specifically ask for capture efficiency, but instead for control efficiency, we assumed that respondent surveys from which the MACT floor is based on reported the overall control efficiency for the vessel. If capture efficiency is an issue for certain vessels, then the rule allows for the use of the multi-process vessel option to achieve an overall 75 percent for all vessels.

With respect to the mini-vent and conical air bleed systems described above, we had separate discussions with NPCA on August 31, 2004 to determine if the mini-vent and conical air bleed systems meet the requirements of the regulation. Based on those discussions and the information already provided to the Agency, we believe that the mini-vent system will not meet the definition of "closed vent system" or "route to closed vent system" because of the gap which exists between the process vent discharge and the mini-vent inlet. We do believe that the conical air bleed system, the "T" air bleed, and the fixed vents would meet the requirements of 2.b.(i-iii) or 3.a.(i-iii), if the closed vent system and control device is operated in compliance with those requirements.

NPCA Question #13:

Does EPA have any guidance on how to comply with the LDAR provisions of the Gasoline Distribution MACT; for example tagging, setting up a documentation log, recordkeeping, etc.?

EPA Response Question #13:

EPA does not have any specific guidance on implementing the LDAR provisions of the Gasoline Distribution MACT, nor do we have any plans to develop such guidance due to budget constraints. The Agency has developed LDAR guidance in the past, which may prove useful. See EPA Document Number 305-B-98-011 "Equipment Leak Inspection Integration Document".

This response was coordinated with the Office of Air Quality Planning and Standards and the Office of General Counsel. If you have any questions, you may call Marcia Mia, of my staff, at (202) 564-7042.

Very truly yours,

M. S. Alushin

Michael S. Alushin, Director
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Office of Compliance