

Comments on
EPA's Proposed Rule
National Emission Standards
for Hazardous Air Pollutants
for Chemical Manufacturing Area Sources
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Submitted by
The American Chemistry Council
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Executive Summary

The American Chemistry Council is pleased to submit comments on the Environmental Protection Agency's (EPA) proposed rule for National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources. We support EPA adherence to statutory requirements established by Congress to reduce emission from area sources that account for 90% of the 30 urban hazardous air pollutants (UHAP) that EPA has determined present the greatest threat to public health in the largest number of urban areas. We appreciate the extra time EPA provided for the submittal of comments and hope that our comments will help EPA promulgate a final rule that is based on realistic assumptions about chemical manufacturing operations at area sources, sound analyses, and strikes a balance between the burden it imposes on these smaller sources and the important UHAP emission reductions it will achieve.

Based on the analyses presented in the preamble to the proposed rule and in the background documents provided in the docket, ACC believes that in some provisions the Agency has appropriately identified control triggers and control levels that reflect generally available control technology (GACT) and provide reasonable control of HAP from chemical manufacturing area sources. However, ACC believes the proposed rule is seriously flawed because EPA has chosen to go beyond what the Clean Air Act (CAA) requires of these area sources, i.e., the reduction of UHAP, and has extended the rule to all organic hazardous air pollutants (OHAP) and all metal HAP (MHAP). This unnecessary reach has resulted in a proposed rule that is not supported by the data, relies on incorrect assumptions, and makes many of the proposed requirements confusing, overly strict and unjustified in their associated burden and costs. We encourage EPA to adhere to the direction given by Congress and focus the final rule on addressing and reducing UHAP emissions from chemical manufacturing area sources.

Since ACC believes the final rule should be focused on the reduction of UHAP emissions using properly determined GACT or management practices, our comments provide a number of options and suggestions as to how this can be achieved in the final rule. A critical issue is establishing clear rule applicability and we propose a number of ways for the Agency to achieve this, including the use of an "area source chemical manufacturing process unit" (ASCMPU); focusing on the primary NAICS code for the site; and establishing appropriate thresholds. For example, in an effort to align the final rule with existing chemical manufacturing regulations, ACC suggests the Agency limit the applicability of the rule to those area sources that emit more than 50lb/yr of organic and/or metal UHAP. ACC also requests the Agency only apply MHAP requirements to process units where urban metal HAP is emitted. These actions and others will achieve the statutory intent of the Clean Air Act's area source program as well as significantly reduce the economic and resource burdens being placed on small emitting sources.

Our detailed comments in the **Comments on Specific Issues and Rule Language** section highlight that the proposed rulemaking does not, in some cases, reflect the Agency's stated intent or approach as expressed in the preamble, background documents, analyses or the cost and burden estimates. Much of the proposed rule also differs from industry practice and other Federal and State regulations.

We appreciate all of the work that EPA has put into this proposed rule, especially when this rule and many other area source rules are being worked on simultaneously to comply with court-ordered proposal and promulgation dates. However, we strongly encourage the Agency to focus its efforts to narrow and simplify this rule so that chemical manufacturing area sources will be able to understand and afford the requirements of the rule as they struggle to stay in business in the months and year ahead.

ACC Comments on Proposed Chemical Area Source NESHAP

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Introduction

The American Chemistry Council (ACC)¹ appreciates the opportunity to comment on the EPA's proposed rule on "National Emissions Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources" (73 FR 58352, October 6, 2008). ACC represents the leading companies and also smaller companies in the U.S. chemical manufacturing industry, which is the focus of this rulemaking. As such, we have a critical interest in any regulatory requirements that EPA may promulgate to address chemical manufacturing emissions, particularly the impact those requirements may have on area sources. ACC supports health, safety and environmental protection policies that incorporate objective, realistic, comprehensive and scientifically balanced analyses.

Our members operate facilities throughout the country, and many will be subject to compliance with the final area source rule. ACC appreciates the challenge and complexities of addressing urban hazardous air pollutant (UHAP) emissions from these smaller sources. Since developing environmental regulations without a full understanding of the legal, economic and technical issues they raise can only lead to ill-advised decisions, we hope that our comments will help inform EPA's decision-making and help shape a sound final rule.

¹ The American Chemistry Council (ACC) represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing. The business of chemistry is a \$664 billion enterprise and a key element of the nation's economy. It is one of the nation's largest exporters, accounting for ten cents out of every dollar in U.S. exports. Chemistry companies are among the largest investors in research and development. Safety and security have always been primary concerns of ACC members, and they have intensified their efforts, working closely with government agencies to improve security and to defend against any threat to the nation's critical infrastructure.

General Comments

I. Rule Applicability

A. The final rule should apply only to Table 1 urban hazardous air pollutants.

EPA has the legal authority to limit the applicability of this rule to chemical manufacturing operations at area sources that process, use, produce or generate a Table 1 urban hazardous air pollutant (UHAP) and should do so in order to make the rule less burdensome, more easy to implement, and more cost effective for the myriad of small, chemical manufacturing area sources that will be required to comply with this rule.

Congress laid out its goals for addressing and reducing certain emissions from area sources in various subsections of Section 112 of the CAA. First, subsection 112(c)(1) requires EPA to publish "...a list of all categories and subcategories of major sources and area sources (listed under paragraph 3) of air pollutants listed pursuant to subsection (b)..." of section 112.

Paragraph (3), which is entitled "Area Sources", does not require EPA to list all categories and subcategories of area sources emitting a listed HAP, but only those that EPA finds "present a threat of adverse effects to human health or the environment (by such source individually or in the aggregate) warranting regulation."² Congress provided further direction on which area sources should be listed by stating that EPA shall, within a specified time and pursuant to subsection 112(k)(3)(B):

"...list, based on actual or estimated aggregate emissions of a listed [HAP], sufficient categories or subcategories of area sources representing 90 percent of the area source emissions of the 30 [HAP] that present the greatest threat to public health in the largest number of urban areas are subject to regulation under [section 112.]"

Clearly, Congress did not intend for EPA to regulate all HAP emissions from all area sources, but rather wanted the Agency to focus its regulatory efforts on reducing UHAP emissions from a sufficient number of area sources to achieve the 90 percent threshold.

Congress' intent is further described in the language of subsection 112(k), which identifies the purpose of the area source program. The subsection states that HAP emissions from area sources may present significant risks to public health in urban areas particularly because of the cancer and other adverse health risks to the large number of persons exposed in these urban areas, and the purpose of the "area source program" is to "substantially" reduce HAP emissions from area sources and achieve a reduction of "not less than 75 per centum in the incidence of cancer attributable to emissions from such sources." Subsection (k)(2) requires EPA to conduct a research program of HAP in urban areas to include ambient monitoring for a broad range of HAP, analysis of the sources of such HAP, and the associated health effects of such HAP. These

² "Listing area sources for control under this section is a discretionary authority with the Administrator." Senate Report No.101-228, p. 171, U.S. Code Cong. and Admin. News, vol.6, 101st Cong., 2nd Session, 1990.

findings are then to form the basis for EPA's "national strategy" to control HAP emissions from area sources in urban areas. Subsection (k)(3)(B) lists the requirements of the national strategy:

(B) The strategy shall-

- (i) identify not less than 30 [HAP] which, as the result of emissions from area sources, present the greatest threat to public health in the largest number of urban areas and that are or will be listed pursuant to subsection (b) of this section, and
- (ii) identify the source categories or subcategories emitting such pollutants that are or will be listed pursuant to subsection (c) of this Section. When identifying categories or subcategories of sources under this subparagraph, the Administrator shall assure that sources accounting for 90 per centum or more of the aggregate emissions of each of the 30 identified [HAP] are subject to standards pursuant to subsection (d) of this section.

Clearly Congress intended EPA to identify not less than 30 UHAP and the vast majority of sources of those pollutants. We find no requirement in section 112 mandating that EPA regulate all listed HAP from area sources. We therefore believe EPA should adhere to the direction given by Congress in section 112 and focus this rulemaking on addressing and reducing UHAP emissions from chemical manufacturing area sources.

EPA can reduce the burden and costs of compliance to be borne by smaller emitting sources by narrowing and simplifying the rule. The legislative history of the 1990 amendments reveals Congress' concern about the economic impacts on and technical capabilities of area sources subject to regulation.³ This concern is what prompted Congress to include subsection 112(d)(5) which allows EPA to promulgate generally available control technology (GACT) standards to reduce UHAP emissions from area sources, rather than the more stringent maximum achievable control technology (MACT) standard required to reduce emissions from major sources of HAP. We address the issue of identifying GACT standards later in these comments.

To make clear how EPA's expansive proposed rule would negatively impact certain area sources by regulating *all* HAP from all chemical manufacturing operations at a facility, we offer the following example of an area source facility owned by an ACC member company. This facility uses one UHAP, hydrazine, in a batch process. From January to October 2008, the facility produced only 6 batches using hydrazine out of a total of 187 total batches. The total UHAP emissions (post-control) from these 6 batches were estimated to be less than 0.01 pounds. As written, proposed subpart VVVVVV would subject the entire facility to the additional controls and management practices based solely on the facility's small use of hydrazine, less than 0.11lb/yr emissions.

Lastly, ACC has identified significant flaws in this proposed rule, many of which would no longer be an issue if EPA were to properly narrow the rule and focus its applicability on UHAP only. Given that EPA is under a court order to promulgate this final rule by May 15, 2009, we encourage the Agency to finalize a rule that is based on realistic assumptions and sound analyses, and balanced in the burden it imposes for the emission reductions it will achieve.

³ "...the Administrator may require...application of generally available control technology-that is, methods, practices and techniques which are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain the emission control systems." *Id.*

B. The final rule should apply only to sites whose primary NAICS code is 325.

Section 63.11494 of the proposed rule is written in such a way that it could be interpreted to apply to chemical manufacturing operations at any area source, not just those where chemical manufacturing is the primary activity. Thus, terminals, coating operations, printing operations and many other types of sites could be subject to this rule. However, we assume that EPA does not intend for these types of sites to be included since they were not considered in the supporting material for this rulemaking. The database supporting this rulemaking appears to include only sites where chemical manufacturing is the primary activity. We believe the GACT requirements to address UHAP emissions from these other types of sites or operations would be different than the GACT requirements where chemical manufacturing is the primary function of the site, because of the differences in site infrastructure.

Furthermore, the final rule should clearly exclude non-chemical manufacturing operations at all sites. Affiliated operations should be defined similarly as in the last sentence of 40 CFR §63.2435(c) (3)⁴ but expanded to all non-coating situations and exclude such activities from this rule's applicability when present at area sources subject to the rule. Applying the final rule to chemical manufacturing operations and exempting non-coating operations would bring the rule into agreement with the supporting data and analysis in the docket.

It is also unclear whether chemical blending or repackaging without any intended reactions are covered by the proposed rule. Since these types of operations do not appear to have been included in EPA's database nor considered in the supporting analyses, we assume they are not subject to the rule, but explicit language to that effect is needed in both the preamble and regulatory language. Again the best approach would be to limit the final rule's applicability to sites where NAICS code 325 is the primary code for the site.

1. The final rule should clarify that HAP emissions from certain operations, including non-chemical manufacturing operations at the site are excluded from the rule's applicability

a) Proposed §63.11494(c) should be clarified, and additional exclusions should be added.

Proposed §63.11494(c) lists certain operations that are excluded and therefore not subject to subpart VVVVVV. However, the meaning of some of the listed items is unclear and we recommend a number of changes to address this confusion and to provide consistency with other rules applicable to the chemical manufacturing industry. Overall, general reference to Part 63 subparts in §63.11494(c)(1) should be eliminated because sources cannot be sure if they will be subject to a particular subpart until the applicability of that subpart is final.

The exception for the manufacture of Paint and Allied Products in §63.1194(c)(1)(i) should be clarified by specifically citing the NAICS codes for that category, NAICS codes 325510 (Paints

⁴ Affiliated operations include, but are not limited to, mixing or dissolving coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storing of coatings and solvent; and conveyance and treatment of wastewater.

and Coating Manufacturing), 325520 (Adhesives Manufacturing), 325910 (Printing Ink Manufacturing), and 325998 (Other Manufacturing, e.g., lead pencils and art goods).

For consistency with the Miscellaneous Organic NESHAP (MON) rule and to limit this rule only to the listed area source categories we request that manufacture of biologics, tall oils and carbon monoxide be specifically excluded. Biological Product (except diagnostic) Manufacturing, NAICS 325414, was not considered to be part of the Pharmaceutical Manufacturing source category upon promulgation of Pharmaceutical MACT, is not a type of chemical manufacturing, and is not part of the listed area source pharmaceutical source category. NAICS 325414 includes such things as blood and blood derivatives for human use, vaccines, toxoids, and antigens, other biologics for human use, and biological products for veterinary, industrial, and all other miscellaneous uses

Proposed §63.11494(c)(5) should be revised to clarify that affected source HAP or UHAP emissions from boilers and incinerators should not be considered in determining the applicability of the rule. Boilers and incinerators are controlled devices and should not be subject to the subpart's control requirements. Additional language also should be added to assure combustion emissions, startup, shutdown and malfunction (SSM) and maintenance emissions are excluded in determining this rule's applicability. We provide below draft language for EPA's consideration that addresses our concerns in §63.11494(c):

- (c) This subpart does not apply to the operations specified in paragraphs (c)(1) through (7) of this section.
- (1) Equipment or emission points that are part of the following chemical manufacturing area source categories listed pursuant to CAA section 112(c)(3) or 112(k)(3)(B)(i)
 - (i) Manufacture of Paint and Allied Products, NAICS codes 325510, 325520, 325910, and 325998.
 - (ii) Manufacture of Chemical Preparations, including repackaging operations.
 - (iii) Mercury Cell Chlor-Alkali Plants subject to subpart IIII of this part.
 - (iv) Manufacture of polyvinyl chloride resins subject to subpart DDDDDD of this part.
 - (v) Manufacture of acrylic and modacrylic fibers and filaments subject to subpart LLLLLL of this part.
 - (vi) Manufacture of carbon black subject to subpart MMMMMM of this part.
 - (vii) Manufacture of chromium compounds subject to subpart NNNNNN of this part.
- (2) Area source chemical manufacturing process units associated with the following types of described in NAICS code 325:
 - (i) Manufacture of radioactive elements or isotopes, radium chloride, radium luminous compounds, strontium, uranium.
 - (ii) Manufacture of photographic film, paper, and plate where the material is coated with or contains chemicals
 - (iii) Manufacture of photographic chemicals.

- (iv) Fabricating operations (such as spinning or compressing a solid polymer into its end use); compounding operations (in which blending, melting, and resolidification of a solid polymer product occur for the purpose of incorporating additives, colorants, or stabilizers); and extrusion and drawing operations (converting an already produced solid polymer into a different shape by melting or mixing the polymer and then forcing it or pulling it through an orifice to create an extruded product). An operation is subject if it involves processing with HAP solvent or if an intended purpose of the operation is to remove residual HAP monomer.
- (v) Manufacture of chemicals classified in NAICS code 325222, 325314, or 325413.
- (vi) Manufacture of tall oils.
- (vii) Manufacture of carbon monoxide.
- (3) Research and development facilities, as defined in CAA section 112(c)(7).
- (4) Quality assurance/quality control laboratories.
- (5) Boilers and incinerators not used to comply with the emission standards in §§ 63.11495 through 63.11500, chillers and other refrigeration systems, and other equipment and activities that are not directly involved (i.e., they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or intermediates used in the production of the product.
- (6) Emissions of Table 1 or other HAP from combustion or their presence in combustion fuels are not considered in determining applicability of this subpart and are not subject to any requirements of this subpart.
- (7) Emissions from startup, shutdown, malfunction and maintenance activities are not considered in determining applicability of this subpart.

In combination with applying the rule only to chemical manufacturing operations, the above exclusions would ensure that the final rule is consistent with EPA's intent as expressed in the preamble and with the data, assumptions and analyses used by EPA to support the proposed rule.

b) Proposed §63.11494(a)(b) should be clarified.

Hazardous air pollutant emissions from non-chemical manufacturing operations at the site, such as utility operations and from co-located operations and processes in other source categories (such as combustion operations, remediation activities organic liquid distribution (including non-reactive blending), gasoline storage, solvent cleaning, coating operations, or research and development activities) should not be covered by this rule or considered in applicability or control decisions. To assure this does not occur, EPA should further clarify the language in proposed §63.11494(a) and (b) to address the equipment and emission sources that comprise chemical manufacturing operations. We recommend that EPA employ a new definition in the final rule, an "area source chemical manufacturing process unit" (ASCMPU or CMPU), which would clarify this rule's applicability significantly.

2. The rule's applicability should apply to an "area source chemical manufacturing process unit", rather than a "chemical manufacturing operation" at a site.

We encourage the Agency to revise §63.11494 and §63.11502 by adding an area source chemical manufacturing process unit (ASCMPU) definition, rather than requiring area sources to decipher the phrase "chemical manufacturing operations" and apply the rule on a site-wide basis. Using an ASCMPU concept for applicability would also resolve a number of the other problems with the proposed rule, as discussed throughout our comments. The ASCMPU concept is consistent with the use of NAICS since these economic codes are assigned based on the process or product being made.

We recommend the following definition for an ASCMPU, which is based on both the Hazardous Organic Chemical Manufacturing NESHAP (HON) and the MON rules:

Area source chemical manufacturing process unit (ASCMPU) means all equipment which collectively functions to produce products or isolated intermediates that are materials described in NAICS code 325. For the purposes of this definition, equipment includes any, all, or a combination of equipment associated with: reaction, recovery, separation, purification, and other operations or treatment which is used to produce a product or an isolated intermediate. The end of a process is marked by storage of the product or isolated intermediate or transfer to a loading operation if no storage is involved.

The end of an ASCMPU that produces a solid material is either up to and including the dryer or extruder, or for a polymer production process without a dryer or extruder, it is up to and including the extruder, die plate, or solid-state reactor, except in the following two cases. If the dryer, extruder, die plate, or solid-state reactor is followed by an operation that is designed and operated to remove HAP solvent or residual HAP monomer from the solid, then the solvent or monomer removal operation is the last step in the process and the end of the process unit. If the dried solid is diluted or mixed with a HAP-based solvent, then the solvent removal operation is the last step and represents the end of the process unit.

A problem unique to chemical manufacturing area sources is presented by the proposed rule's site-wide compliance requirement. The proposed rule requires control of emissions both from equipment used in a chemical manufacturing operation at a site involving UHAP, and from equipment used in a chemical manufacturing operation that *does not* involve UHAP. This site-wide compliance requirement could result in serious economic harm to area sources whose business is to introduce new products to the market.

As written, the rule requires a company that produces a new product that uses, produces, processes or generates a UHAP to bring *all* of the equipment used in *all* of its chemical manufacturing operations into compliance, even before the new product could even be made. The time and expense of site-wide compliance would present a significant barrier to new

products, and could stifle innovation. A much sounder approach is for the rule's compliance requirements only to apply to the ASCMPU for that new product.

As we point out in the section on batch process vents and elsewhere in our comments, many minor, insignificant batch vents which clearly do not justify control would be subject to emission controls simply because they exist at a site where some process has a few larger batch vents. Similarly, processes with minor amounts of UHAP will be subject to control and management practice requirements at every affected site, even though there is an (1) insignificant potential for UHAP emissions, (2) insignificant benefit from applying those requirements, (3) a lack of cost effectiveness and (4) it is contrary to the concept of CAA.

ACC believes another major problem presented by the proposed rule is the inclusion of a wastewater *system* in the chemical manufacturing operations affected source and EPA making that system the basis for defining wastewater rather than defining wastewater on the basis of discard from a process as is done in other rules applicable to the chemical manufacturing industry. As discussed in our comments in the wastewater section, including wastewater systems in the affected source results in most of the water streams intended to be addressed by the wastewater requirements being "process streams" and thus not regulated, while making wastewater system outlets and streams that do not require treatment regulated "wastewaters". Also, the proposed rule imposes inappropriate requirements on equipment that would be considered waste management units under other constructions process equipment. We believe that using a process unit basis for defining wastewater rectifies this problem.

For example, by making a cooling tower part of the affected source and discard from the affected source the basis for identifying wastewater would result in "blowdown" being considered wastewater subject to the Table 2 requirements -- an unprecedented requirement. Blowdown contains little hydrocarbon to justify the massive costs of treatment required by Table 2, particularly in light of the cooling tower monitoring requirements also imposed by this rule.

In summary, we strongly encourage the Agency to focus applicability based on an ASCMPU basis. The affected source, as defined in §63.11494(b), would then be the collection of ASCMPUs, associated cooling towers, wastewater systems, controls, etc., as is typical of other rules applicable to chemical manufacturing.

3. Control of non-UHAP emissions should be limited to ASCMPUs that emit UHAP.

The proposed rule seeks to regulate not only UHAP but all other organic and metal HAP. The Agency's rationale for this overly-broad control requirement appears in the preamble at page 58358. As discussed below, we believe much of the Agency's rationale is flawed and this results in an underestimation of the cost of controlling all HAP emissions and an overestimation of the cost effectiveness of that requirement.

First, EPA assumes that "the management practices proposed in the rule are equally effective at controlling emissions of HAP other than the chemical manufacturing UHAP and there is little, if any, additional cost for implementing those management practices for all emissions sources (e.g.,

for process vents the annual cost of the management practices is less than \$300/yr.” While we agree with EPA that the controls would reduce emissions of both UHAP and non-UHAP, EPA fails to accurately capture the costs of achieving the non-UHAP emission reductions because it significantly underestimates the extent of non-UHAP equipment that would need to be addressed. This in turn, significantly impacts EPA’s cost-effectiveness assessment, as the non-UHAP emission reductions would be extremely costly for the very small emission reductions potentially achieved. We discuss this issue in more detail in our specific comments on the proposed management practices for process vents and storage vessels below, and show how the actual costs will be considerably more than the EPA estimate.

Second, EPA states that “where add-on controls are required under this rule, those controls will reduce not only emissions of the chemical manufacturing HAP, but also emissions of the organic and metal HAP that are not chemical manufacturing UHAP.” The Agency incorrectly assumes that if UHAP emission points on equipment are controlled, there is no additional cost to control emission points with non-UHAP. While EPA may be correct for equipment that is part of an ASCMPU that contains UHAP, as written the proposed rule will regulate equipment that emits no UHAP. There are usually many more non-UHAP emission points at an area source than UHAP emission points. It seems clear that many additional controls will be required if the final rule regulates *all* chemical manufacturing processes and equipment at a site, not just the equipment or processes emitting UHAP.

Additionally, different controls are needed for different HAP so a particular control used for an urban HAP may not control non-UHAP. For instance, some UHAP are best controlled with scrubbers or condensers. Such controls will also remove some organic HAP but would not meet rule removal requirements for most OHAP thereby requiring the installation of an additional control device (e.g., combustion). Based on ACC member company information, it is more common for a site to have scrubbers and condensers as control devices than combustion. Thus, the Agency’s assumption that controls for UHAP will also control OHAP is incorrect for many area sources, resulting in these area sources having to install additional costly controls in order to control all HAP, even when UHAP emissions may already be controlled.

By way of example, consider a site with a chemical manufacturing process that uses a small amount of a chromium compound (a Table 1 urban-metal HAP) as an additive in one process. Though not used in the process, a storage tank of methanol is located at the site⁵. Under EPA’s proposed rule, the process using the urban-metal HAP would be subject to controls, as well as the methanol storage tank, which could be subject to management practice requirement for storage tanks, the equipment leak provisions and potentially the control requirements for tanks (e.g. internal floating roof tank or collection of the vent and routing to a condenser, new flare or thermal oxidizer or other control device). In this example, different add-on controls would be required to achieve emission reductions of the urban-metal HAP and non-UHAP (methanol) emissions. Yet, the Agency’s proposal assumes the same controls used for UHAP would address non-UHAP emissions at no additional cost.

⁵ Methanol is a commonly used antifreeze and deicing agent and many area sources will have methanol tankage and equipment that is not directly used in chemical manufacturing processes.

Another issue is that even within an ASCMPU costs will be much higher than the Agency estimates because multiple controls will often be needed for the UHAP and non-UHAP. Typically, UHAP is present in only a portion of the chemical manufacturing process. Yet the proposed rule would regulate entire process, from raw materials to finished product. For example, a site might use a chemical manufacturing process which produces a UHAP as a reaction byproduct. While the UHAP is not present in the process until after the reaction, all of the equipment involved in the process up to the reaction would be subject to control. Thus, controls will be required throughout the process, not just in the area of the UHAP and multiple controls will usually be needed (not one as assumed by the Agency).

One more example is a site where there is a continuous process vent that emits small levels of UHAP. Approximately 400 feet away, the same process unit has a continuous process vent that emits a low heating value air stream that has small levels of non-UHAP from a different process step. Under the proposed rule, both emission streams are required to be controlled. However, the emission control technology used to control each vent would be different. The first stream likely would be routed to a flare, but the second stream likely would be routed to a catalytic oxidizer due to the presence of oxygen (which would create a safety hazard in the flare system) and a low heating value. This process would require installation of two different emission control devices (e.g., vent header and catalytic oxidizer) with estimated installation costs in excess of \$1 million dollars. This \$1 million dollar price tag does not include the costs of any management practice, equipment leak and cooling tower provisions which EPA would impose throughout this site, although the UHAP is present in one process and in only one area on the site.

Third, the Agency assumes that "applying the proposed standards only to the chemical manufacturing UHAP would require the facility to speciate HAP as opposed to measuring total HAP when demonstrating compliance." (Emphasis added). ACC believes this assumption is incorrect. Metal HAP speciation will always be a separate analysis from any OHAP speciation and there is little practical difference in having to speciate UHAP or non-UHAP from an emission point. Generally, sophisticated gas chromatographic or gas chromatographic/mass spectrometric procedures are required for either analysis. Furthermore, in most cases, rule compliance procedures are based on total organic compounds (TOC), regardless of what species are being controlled. This is particularly true for combustion controls, the most common type of control. Thus speciation of the HAP is not normally required for compliance purposes and is certainly not a reasonable basis or justification for extending this rule's requirements to *all* chemical process operations at the site.

Fourth, the Agency assumes that "many facilities route emissions from process vessels to common vents and it would not be practical to control only UHAP emissions from those vents." This assumption is true for process vessels that emit both UHAP and non-HAP. However, it does not account for the many vents that emit only non-UHAP. If this rule were to apply to all HAP, as EPA is proposing, a substantial number of emission points that do not emit any UHAP will have to be routed to existing controls or have new controls installed. As EPA may know, many area sources do not have the large centralized control devices or collection systems that one would find at major sources. Instead, area sources typically use individual control devices for each emission point. For these sources, every additional emission point requiring control

means installation of a new control and associated utilities and instrumentation. Yet EPA's supporting analyses for this rule does not take into account the massive amount of new equipment that would be required for control and associated costs that would be required to address non-UHAP on a site wide basis.

Fifth, EPA states that it has "determined that sources will not have to install different controls or implement different management practices to implement the proposed standards for all HAP and, as part of the GACT analysis, we have found that the costs of applying the proposed standards to all HAP are reasonable"⁶. As discussed above, this is not always the case. Most sources will have to install additional controls and apply management practices more broadly than if only UHAP were regulated or if both UHAP and non-UHAP were regulated on an ASCMPU basis. More importantly, if the final rule regulates *all* HAP, area sources will have to install many more controls and apply required management practices to much more equipment than the Agency has considered or included in its impact analyses and in its identification of GACT.

Sixth, the Agency's analyses fail to consider the massive costs associated with extending requirements to emission types other than process vents. For example, while it may be typical to have a limited number of process vents in a process unit, there are often many process water streams, all of which must be characterized under the proposed rule's broad requirements, even if controls are not required. One ACC member reports that it has a process unit where 20 wastewater streams, none of which contain UHAP, will need to be characterized at an estimated cost of \$30,000 (\$10,000 in engineering fees and \$20,000 for sampling and analysis.) Thus, extending rule requirements to non-UHAP on a process unit basis can impose large wastewater characterization costs, even if the process vent characterization costs are limited.

The Agency justification for extending this proposed rule to all HAP is based on the assumption that all HAP control would be incremental to UHAP control. This assumption is incorrect because any control of emission points at processes that do not involve UHAP is *additional*, not incremental. Therefore, EPA's cost calculations and GACT conclusions, which are based on this incorrect assumption, are not valid, and warrant a reassessment. This is especially so when applied to individual chemical processes that do not emit UHAP.

As stated above, we believe that EPA should focus the applicability of this rule on an ASCMPU that emits urban HAP. If the rule were so focused, ACC believes the rule could also require the control of non-UHAP emissions from the affected ASCMPU. We appreciate the Agency's objective to reduce emissions of all HAP from area sources and we believe our proposal would advance that goal considerably.

4. The final rule should require the control of all organic HAP (OHAP) from an ASCMPU where organic UHAP is present and all metal HAP from an ASCMPU where urban metal HAP is present, but not both, unless both organic and metal UHAP are present in the ASCMPU.

The proposed rule requires control of all HAP when *either* organic UHAP or urban metal HAP is present, at any level. However, OHAP and metal HAP are different chemical species with

⁶ 73 FR 58358

different physical characteristics and sometimes, different emission points. Moreover, OHAP and metal HAP usually require different types of controls.

We believe the rule would be clearer, more effective and less burdensome if OHAP requirements are only imposed if urban OHAP are emitted, processed, used, produced or generated. We believe the same would hold true for MHAP requirement and that control requirements for metal HAP and urban metal HAP should apply only if urban metal HAP is emitted, processed, used, produced or generated.

As seen in the Agency's model plant parameters, emission reduction estimates and analyses, EPA's determinations on cost, impact and GACT did not consider the effect of requiring control of metal HAP from sources where *organic* UHAP is present, but *metal* UHAP is not. Rather, the EPA analysis assumed whatever controls were installed would handle both organic and metal HAP. In ACC's view this is an incorrect assumption.

Specifically, EPA proposes that if metal UHAP is present in a process, management and control requirements would also apply to all the organic HAP in that chemical process and any other chemical production operations at the site. Imposing organic HAP requirements on the basis that metal UHAP is present is unreasonable, since metal HAP controls do not reduce organic HAP and GACT would require the consideration of metals separately from organics. The same unreasonable burden results by applying metal HAP requirements when organic UHAP is present in the process. The record supporting this proposed rule does not appear to contain any analyses of the cost and impact of applying organic HAP control requirements to operations where metal UHAP is present and organic UHAP is absent, and vice versa. Because this analysis is lacking, EPA's determination as to what controls are GACT is flawed.

Thus, the basis for the proposed requirement to control metal HAP from all chemical manufacturing operations if organic UHAP is involved in any operation at the site, and to control OHAP if any metal UHAP is involved at the site, is unsupported in the record. These two types of HAP should be treated differently unless an ASCMPU involves both organic UHAP and metal UHAP, in which case both emission types should be controlled for that ASCMPU.

C. EPA should clarify what equipment is subject to the rule.

1. We believe the "primary code" NAICS test should be applied to chemical manufacturing process units based on the products and isolated intermediates primarily produced by that process and should not include wastes or non-isolated intermediates.

The development of the source category and the basis for the NEI database is the NAICS code of the products produced at a site, or possibly at an individual process unit. Furthermore, wastes and non-isolated intermediates can occur in many processes that are not chemical manufacturing operations and are not reflected in the database or rule analysis. Thus, §63.11404(b) must be clarified to indicate only products and isolated intermediates are considered when determining if a process unit is an ASCMPU.

2. EPA should clarify that the presence of Table 1 HAP in non-chemical manufacturing operations does not trigger applicability.

Table 1 HAP may be present at an area source and even within the physical boundaries of a chemical manufacturing process unit because it is associated with operations that are not “chemical manufacturing”. For example, we believe that the proposed rule should not apply to the following: (1) emissions of butadiene and acetaldehyde (both Table 1 HAP) from combustion sources, and the presence of butadiene at very low levels in gas combustion fuel and the presence of other HAPs in liquid combustion fuels⁷, (2) the common use of hydrazine (a Table 1 HAP) in boiler feed water treatment, (3) Table 1 HAP which are present in combustion fuel, cooling water treatment packages, and heating and cooling systems, and (4) Table 1 HAP present in maintenance and cleaning products and in maintenance wastes (e.g., welding slag, machine shop wastes, discarded pipe).

While it seems clear to us that these operations would not be subject to this rule since they were not considered or addressed in any of the supporting documents in the docket, we request the Agency clarify, preferably by addition to §63.11494 paragraph (a) or (c), that none of these situations would be considered processing, using, producing or generating Table 1 HAP in chemical manufacturing operations or an ASCMPU.

3. The final rule should establish an applicability threshold of 50 lb/yr total Table 1 HAP and exempt area sources emitting UHAP below that threshold from control requirements.

As proposed, the rule would apply to a chemical manufacturing area source emitting even one molecule of organic or metal UHAP. As we point out throughout these comments, a number of EPA’s assumptions as to the impact of this rule are incorrect and results in a gross underestimate of costs. A simple way to address some of these flaws, thereby reducing the costs, is to limit the applicability of the rule to those area sources that emit greater than 50 lb/yr of any organic or metal UHAP.

In the past, EPA has established applicability thresholds in some of the NESHAP rules applicable to major sources. For example, in the MON, EPA limited the applicability of the rule by excluding from the definition of “batch process vents” emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP; and a vent from a unit operation, or a vent from multiple unit operations that are manifolded together, from which total uncontrolled HAP emissions are less than 200 lb/yr⁸. Similarly, in the Organic Liquid Distribution (OLD) NESHAP, EPA established an applicability threshold for control of storage tank emissions with a capacity of less than 5,000 gallons, and for each transfer rack subject to the rule that only unloads organic liquids. Those emission sources do not require control but records must be kept (on-site) that verify that the tank and transfer rack is not required to be controlled.⁹

⁷ Per §63.11494(a)-(d) combustion devices used as controls are part of the chemical manufacturing affected source and “process equipment” which is part of the affected source per paragraph (b) is not defined to exclude fired equipment, such as fired reactors or even fired reboilers. Thus, emissions from such combustion devices might be construed as being part of the applicability test.

⁸ 71 FR 40338 (July 14, 2006) and 40 CFR §63.2550.

⁹ 71 FR 42898 (July 28, 2006) and 40 CFR §63.2343.

Under proposed §63.11494(a), the presence of Table 1 HAP, regardless of quantity, in a chemical manufacturing operation at a site triggers site-wide rule applicability. However, there are many cases where Table 1 HAP may be present but either are not emitted, or are emitted in extremely small quantities. This commonly occurs where Table 1 metals and metal compounds are incorporated into catalysts or solid bed adsorbents, or where Table 1 metal compounds or organics, such as acetaldehyde, are present in solutions. For instance, catalysts involving nickel are common hydrogenation catalysts.

Two other examples where Table 1 HAP may be present but either not emitted or emitted in very small quantities are where a Table 1 HAP is generated in a reaction, but is reacted to a non-Table 1 material before it can be emitted, or where Table 1 HAP is added to a process but is consumed in a reaction or incorporated into a product and not emitted. In these situations, any emissions of the Table 1 HAP would only result from SSM episodes and would likely be at levels that are inconsequential.

An ACC member company reports that it uses an organic UHAP at an area source for two days a year with emissions of less than 1 lb/yr, with total HAP emissions from the area source of less than 1 ton per year (tpy). As a result of this source's negligible UHAP emissions, a consultant has estimated that this area source will have to spend at least \$50,000 to evaluate all of the streams at the site and set up required compliance systems, and at least \$20,000 per year complying with the proposed monitoring and management practice requirements of subpart VVVVVV.

We believe there is no justification in the record for such inconsequential emissions of Table 1 HAP to trigger all the requirements of this rule and apply them to an ASCMPU, much less to all HAP across an area source. We therefore believe that EPA should add a threshold applicability requirement to proposed §63.11494(a). We recommend that the final rule only apply to a site if uncontrolled emissions of Table 1 HAP from the ASCMPUs at the site are equal to or greater than 50 lb/year.

II. Preamble and Proposed Regulatory Language.

A. The proposed regulatory language does not reflect the Agency's stated intent or approach as expressed in the preamble, background documents, or analyses. The proposed regulatory language should be revised so that the final rule accurately reflects the supporting analyses and the Agency's stated intent.

Example: Definition of Continuous

The preamble describes a continuous process vent as "the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream that meets three conditions: (1) It contains OHAP, (2) some or all of the gas stream originates from a unit operation that operates continuously, and (3) the gas stream flow is continuous."¹⁰ The language of the rule, however, does not require that a stream be sent to the atmosphere or a control device.

¹⁰ 73 FR 58356.

Example: Batch Process Vents

The proposed regulatory definition for “batch process vent” at §63.11502 is broader than the preamble definition and would be applicable to *all* gas streams in a process. A batch process vent is defined in the preamble as “a point of discharge from a single unit operation or from a common header that connects multiple unit operations through which an organic HAP-containing gas stream is, or has the potential to be, released to the atmosphere.” Specifically excluded from the definition of a batch process vent are, *inter alia*, gas streams routed to a fuel gas system.¹¹ Again, the proposed regulatory definition at §63.11502 is broader than the preamble definition and therefore would be applicable to *all* gas streams in a process, even a gas stream routed to a fuel gas system. We believe the Agency should revise the regulatory language in the final rule so that it mirrors the description in the preamble.

- The analyses presented in the Information Collection Request (ICR) under the Paperwork Reduction Act and the discussions in the preamble under the various laws and Executive Orders do not reflect the proposed rule language.
- The supporting database and documents for this rulemaking do not consider any streams other than those routed to the atmosphere or to a control device as process vents but the proposed rule language does.
- The costs and burden analyses are based on conditions reflected in the supporting documents and not the actual proposal as required legally.

III. Data Sources and Assumptions

A. The use of unchecked NEI, TRI and company website information is problematic and likely contributes to an underestimate of the national cost of this rule and an overestimate of the cost effectiveness of certain proposed requirements.

ACC is concerned that the data supporting this rulemaking is not representative of the sources in the source categories. We also believe it is likely that EPA has underestimated both the number of sources and emission points that will be impacted by this rule.

It appears that EPA relied on data from existing rules, permits and model plants to develop the proposed rule. Unfortunately, the model plant approach does not provide for a reasonable estimate of the number of sources; type of emission points; quantity and distribution of HAP emitted; or the number of controls that may be needed. For example, the model plants generally do not reflect the range of emission point characteristics and HAP concentrations at area sources, which has lead EPA to overestimate the emission reduction potential, and underestimate the costs of this proposed rule.

¹¹ *Id.*

While ACC cannot quantify the number of sites potentially subject to this rule, we believe many more sources than EPA estimates will be impacted because their NEI and TRI entries are often based on the primary NAICS and SIC codes for the site, not the codes associated with individual processes. Thus, many facilities with chemical manufacturing operations probably were not reflected in the facility count because they are located at sites that are primarily in other source categories (e.g., organic liquid distribution, printing, various coating operations, etc.).

We found that many of the records in the NEI could not be readily assigned to one of the six types of emission points subject to the proposed rule. Therefore, to estimate emissions by emission point we used only the total OHAP emissions and total metal HAP emissions (and corresponding UHAP fractions) for each facility. We then disaggregated the total OHAP emissions per facility to process vents, storage tanks, equipment leaks, and wastewater systems assuming the average distribution for major sources also applies to area sources. We estimated OHAP emissions from transfer operations and cooling towers separately.¹²

The “disaggregation” process, which assumes area source emissions and emission points are distributed as they are for major sources (using the MON as the model), is described in the docket for each emission type and we comment on this approach in more detail below when addressing specific emission types. Overall, we believe that for individual emission source types the “disaggregation” process results in inaccurate cost estimates as well as inaccurate emission reduction and cost effectiveness estimates.

Another EPA assumption that we find troubling is the Agency’s inclusion in this area source rulemaking of NEI data from identified “major” sources. EPA assumed that if the NEI data showed HAP emissions from these “major” sources as “much less” than major source thresholds (HAP emissions of 10/25 tpy), these emissions probably were not from a “major” source. Similarly, EPA included TRI sites as area sources in this rulemaking if the HAP emissions were equal to or less than 50% of the §112 major source definition. EPA provides no reasonable explanation in the record for these subjective actions. Moreover, ACC believes that there are a number of legitimate reasons why a “major” source could be emitting HAP below major source thresholds. One reason might be that the major source has scaled back its production; another reason could be that the emissions data was incorrectly entered into the database.

In addition, except for synthetic minors, a source is classified as either “major” or “area” based on pre-control emissions. NEI and TRI emissions data reflect post-control emissions. Thus, many sources in those databases with low actual HAP emissions are likely major sources that have controls on their larger emission points. By inappropriately including major sources in this area source rulemaking database, EPA has biased the cost effectiveness analysis, i.e., made it appear more cost effective than it actually is, because these major sources will have larger equipment, more emissions and concentrated in larger sources. Major sources typically have existing flares or combustion devices that can be readily utilized as controls, existing electronic instrument systems, available space and utilities for controls and etc.

¹² *Id.* at 58356.

Finally, over the past couple of years, EPA has been made aware of all of the shortcomings of the NEI database through discussions and comments submitted by ACC and others when the Agency encouraged industry to review and correct NEI data for purposes of residual risk rulemakings. In comments submitted in 2007, ACC stated that:

“If the Agency plans to use the [NEI] data set for area source risk assessment or rulemaking it needs to ask area sources to review and correct the data, preferable directly. Area sources will not, in general, respond to the current ANPRM since they are not subject to the CAA §112(d)(6) or (f) rules. At this time, the [NEI] data sets are not of adequate quality for area source rulemaking.”¹³

Based on our past reviews of the NEI and TRI databases, we have concluded that the NAICS and SIC codes and emission point information contained therein are often unreliable and do not accurately represent the emissions from area sources. We therefore encourage EPA to give the data little, if any weight in the Agency’s calculations and analyses supporting the final rule.

IV. Generally Available Control Technology

A. EPA has appropriately used its CAA authority to propose standards using GACT or management practices to reduce emissions.

Citing its authority under §112(d)(5) of the CAA, EPA has concluded that it is appropriate to require GACT or management practices by area sources to reduce emissions. We agree with the Agency’s interpretation of §112(d)(5) and support its decision. In determining GACT, the Agency may consider costs and economic impacts and that is particularly appropriate when developing requirements for small businesses, especially at this critical time when our national economy is in a deep recession.¹⁴

While the CAA is silent on how EPA is to determine cost effectiveness, and there is no specific case law on the subject, we believe that a number of factors should be considered and included in the overall cost calculations before the Agency determines whether a particular control is “generally available”. The factors to be considered should include the following: all costs associated with proposed controls or management practices, including any associated monitoring, reporting and recordkeeping; and applicability thresholds, which may reduce costs, or in their absence, increase costs.

1. Some of the proposed requirements are too costly for area sources and therefore are not GACT.

As discussed below and in our specific comments on individual emission points, we believe some of the requirements in the proposal do not constitute “generally available” control

¹³ ACC June 29, 2007 Comments on “Risk and Technology Review, Phase II, Group 2, Advanced Notice of Proposed Rulemaking”, 72 FR 14734, March 29, 2007. See Docket Document EPA-HQ-OAR-2006-0859.

¹⁴ The legislative history on the definition of GACT can be found in the Senate report on the 1990 amendments to the CAA, which states in pertinent part that GACT includes “...methods, practices and techniques which are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain emission control systems.” S. Rep. No. 101-228, 101st Cong. 1st Session, at 171-172.

technology because of their significant burden and/or cost. For example, the controls themselves may be “generally available”, but EPA failed to include the costs of the associated monitoring, recordkeeping and reporting requirements which when done, results in no cost effectiveness and the control no longer reflecting the general practice for area sources.

A key criterion for determining the “availability” of technology is the cost effectiveness of the proposed controls. EPA recognized this issue in the area source rulemaking for hospital ethylene oxide sterilizers:

In addition, we considered the cost effectiveness of the add-on controls. See, e.g., *Husquavarna AB v. EPA*, 439 U.S. App. DC 118, 254 F.3d 195, 201 (DC Cir. 2001) (finding EPA’s decision to consider ‘per ton’ costs on a per ton of emissions removed basis reasonable because CAA section 213 did not mandate a specific method of cost analysis). EPA’s cost analysis for the add-on controls showed poor cost effectiveness. Specifically, EPA’s cost effectiveness estimate for add-on controls was \$200,000 per ton of ethylene oxide reduced. This cost effectiveness excludes monitoring, recordkeeping, and reporting costs.¹⁵

While the cost effectiveness that reflects GACT will vary somewhat from situation to situation, we believe that “generally available” control requirements (including associated monitoring, recordkeeping and reporting) for chemical manufacturing area sources should be no more than \$1,000-\$2,000 per ton of HAP removed. This range is roughly one-half of the costs associated with the maximum achievable control technology required for major sources in the HON and MON rules.

The lack of cost effectiveness presents itself in three other situations in this rulemaking: (1) where EPA has used MACT rules applicable to major sources as a model for GACT requirements, (2) where EPA is proposing controls on emission points but those same emission points were excluded from control requirements in the rule, and (3) where the “real” emission points are substantially different from the emission points in EPA’s model plants. We address each of these situations later in our comments on specific emission points.

2. “Generally available” control technology criteria includes technical feasibility.

Some of EPA’s proposed control requirements also are not “generally available” because they fail to assure that particular emission points can be controlled by the prescribed control requirements. One of the ways to address this issue is to establish applicability thresholds. For example, in the proposed batch process vent definition EPA failed to include the often used 50ppmv OHAP concentration applicability threshold. By failing to incorporate that threshold in this proposed rule, streams with concentrations of less than 50ppmv OHAP concentration must be controlled even though it is often technically infeasible to do so and difficult to demonstrate compliance for such dilute streams. Another example is EPA’s failure to include the less than 5 wt % HAP criteria that is generally found in GACT requirements for equipment leaks and heat exchange systems (e.g. HON and MON). We do not believe that some of these proposed

¹⁵ National Emission Standards for Hospital Ethylene Oxide Sterilizers, 72 FR 73618 (December 28, 2007)

requirements, without an applicability threshold, can be considered “generally available” because the requirements are not cost effective below certain thresholds.

3. EPA’s proposed compliance with the monitoring/recordkeeping requirements in the General Provisions fails to consider EPA’s recent proposal to amend those provisions.

This proposed rule requires compliance with various provisions in 40 CFR Part 63. On October 9, 2008, three days after this area source rulemaking was published in the Federal Register, EPA proposed to revise various provisions in Part 60, 61 and 63; more specifically, EPA proposed new requirements for continuous parameter monitors required under Part 60, 61 and 63.¹⁶ We are in the process of drafting comments on that proposal but we have concluded that EPA’s proposed requirements do not reflect general industry practice and thus are not GACT for chemical manufacturing area sources. Many chemical manufacturing area sources do not have sophisticated instrument systems, centralized computer data systems and on-site instrumentation specialists and this fact does not appear to have been acknowledged in EPA’s cost estimates and impact analysis for the new requirements and certainly was not considered in the development of this proposal. For purposes of the chemical manufacturing area source rulemaking, the final rule should specifically exclude the applicability of the newly proposed Performance Specification 17 and Quality Assurance Procedure 4.

EPA cannot require chemical manufacturing area sources to comply with Performance Specification 17 and Quality Assurance Procedure 4 until it has undertaken a more sound impact and cost analysis, i.e., the analysis must reflect the impact and cost of installing all new instrumentation systems for all parameter monitoring required by the rule, including significant external contract and operating costs needed to comply with the new Quality Assurance Procedure 4 requirements.

V. Cost, Burden and Cost Effectiveness Analyses

A. The proposal may have a significant adverse impact on some small existing sites and could lead to shutdowns.

EPA estimates capital costs at \$2.9 million, with total annualized costs (including annualized costs of equipment) at \$3.9 million/yr. For the co-proposed metal HAP threshold of 400 lb/yr, EPA estimates a total capital cost of \$2.3 million, with a total annualized cost of \$2.6 million/yr. We note that EPA’s estimated capital cost of \$2.9 million will be surpassed with the purchase of only a few thermal oxidizers, a common control at area sources that do not have flare systems or where vent streams contain air or have low BTU contents.

EPA further states that its analyses show that “few” of the impacted facilities are “small entities” but regardless, “the proposed rule will not impose a significant adverse impact on *any* facilities, large or small.”¹⁷ (Emphasis added.) It is unclear to ACC at what point in time EPA arrived at

¹⁶ 73 FR 59956 (Oct. 9, 2008).

¹⁷ 73 FR at 58374.

this rather astounding declaration, which we think is grossly inaccurate. Even if true at the time it was made, that conclusion cannot stand today as our economy slides into a deep recession.¹⁸

Many area source chemical manufacturing sites are very small, with only a few personnel onsite. Imposition of any significant requirements associated with implementing an area source rule, could easily result in the shutdown of some of these sites. Even small sites that are owned by relatively larger businesses must remain competitive on an individual basis and could possibly be shut down rather than given additional personnel or increased budgets for controls and management practice standards), monitors and/or contract support.

B. EPA's cost estimates do not realistically capture the impact these requirements will have on smaller area sources.

Overall, it appears that the Agency is employing cost calculation procedures that reflect major source situations rather than those of smaller area sources. This may stem from EPA's belief that "few" of the estimated 450 existing facilities impacted by this rule are "small" entities.¹⁹ First of all, we believe EPA has underestimated the number of existing sources and processes that will be impacted by this rule, in large part because the proposed rule is written so broadly that many unanticipated processes and sources will be brought in. However, regardless of the number of sources, EPA's cost calculation procedures should be recalculated based on realistic conditions at small urban sources.

The following are just some of the examples of why we believe the number of controls and subsequent capital costs for this proposal are significantly underestimated:

- EPA's administrative record estimates that 2 continuous process vents, 4 batch process vents, 30-55 metals vents, and 5 storage tanks will require controls nationwide. These estimates are based on the calculations presented in the supporting documents for the rulemaking which were based on the normal definitions of each emission type (as described in the preamble). Furthermore, many of the EPA model plants are not representative. Because the rule would regulate very small emission sources, there would be no significant additional emission reductions. Feedback received from some ACC member companies supports our belief that there will be significantly more emission points requiring control and the costs associated with the purchase of the controls will be much higher than EPA's estimate. For example, ACC received the following feedback from some of its member companies:
 - Two metal processing facilities estimated at least \$250,000 each for initial compliance costs.
 - The use of 110 gallons of hydrazine per year at one facility will require at least \$750,000 in capital investment for new and upgraded vent headers, as well as a

¹⁸ Chemical maker Dow cuts 5,000 jobs - Closes plants to save money **Washington Times** 12/9/08, Slowdown creating chemical reaction / Area plants cut jobs, output as sales slump **Houston Chronicle** 12/8/08, Eastman Plans More Than \$100 Million In 2009 Cost Cuts **CNNMoney.com** 12/17/08, Chemicals slammed in 2008 by energy, credit woes **Chicago Tribune** 12/31/08

¹⁹ 73 FR at 58374..

capital investment to upgrade storage tanks not directly associated with the hydrazine process. This site also anticipates spending \$50,000 in consultant engineering to evaluate applicability of the rule and to cover the cost of sampling.

- Two sites reported \$1 million and \$1.5 million investment costs per site to meet rule requirements.
- Evaluating streams will cost each affected site between \$5,000 and \$50,000 dollars for the EPA estimated 475 sites or \$2.4 to 24 million total area source cost versus the \$0.5 million EPA analysis.
- Requirements for process vents and storage vessels will cost at least \$2.4 million per year instead of the ICR estimate of \$130,000/year.
- Seven batch manufacturing facilities reported emission batch vent estimation costs of between \$3,000 and \$5,000 per product under the MON rule totaling approximately \$60,000 for about 15 recipes per batch plant or \$1.3 million for the EPA estimated 216 batch facilities. While the costs for these required emission estimates are not broken out in the ICR, we note that \$60,000 significantly exceeds EPA's total burden estimate for the rule of \$11,856 per year.

A review of the record shows that EPA assumes 4 area sources have uncontrolled emissions over 19,000 lb/year for batch process vents, but provides no basis for this assumption.²⁰ The cost analysis appears to assume a single, high concentration vent stream without a clearly defined basis. A typical batch process at ACC area source facilities has several vents and has multiple batch processes. Specifically, one ACC member site makes hundreds of products and has approximately 200 batch process vents with very small amounts of HAP distributed among these many vents.

Moreover, ACC believes that the proposed definition of batch process vent is so unusual and expansive that dozens of vents for every process subject to this rule will be classified as batch process vents and many of these will require control. Even if the proposed definition were revised, many small batch vents at batch process sites and some continuous process sites likely will require additional control devices, or large, costly, collection systems to collect these smaller batch vents.

We also note that the Agency has not included any halogenated vent streams in its cost analyses, even though many of the UHAP are chlorinated. Halogen removal is very costly both on a capital cost and operating cost basis when required by the rule for halogenated streams and involves generation of a large wastewater streams that require treatment or disposal. (See p58358 – “standards apply to halogen HAP but only when generated in a combustion device that is used to meet a proposed standard – these by-products of combustion are also subject to the proposed standard”).

²⁰ Docket Document EPA-HQ-OAR-2008-0334-006

The Agency calculations do not appear to have considered that small sites typically cannot recover impure, mixed, or waste materials and therefore must dispose of them. The cost of disposal has not been considered and included by EPA. These small sites also do not have the opportunity to use recovered materials as fuel. Lastly, small sites do not have the opportunity to develop economies of scale to spread the substantial cost of extensive monitoring systems over their small number of monitoring points. Data acquisition and analysis systems that may be cost effective in larger facilities cannot be justified economically for many of the affected area sources.

ACC believes that EPA needs to recalculate the costs of the proposed rule to take into account the following:

- Recovered material should be valued at waste disposal costs, rather than valued at product or fuel costs. Furthermore, this proposal would not allow use of recovered materials as fuel, requiring streams currently used as fuel to be diverted to control devices thereby losing their value as a fuel.
- Only pure product recovered directly to its source (e.g., tank floating roof controls or transfer operation vapor balancing) should be valued as recovered product.
- New utilities, instruments, computers, etc. will be needed and those items need to be included in the costs of compliance.

C. EPA's burden estimate is flawed.

According to the Information Collection Request Supporting Statement:

The proposed NESHAP requires capital costs associated with performance tests, monitoring equipment, and water sampling and analyses. The total cost for these capital expenditures is \$936,479 for existing and new sources.

Operation and maintenance (O&M) costs for existing and new sources are associated with the cost of materials for temperature monitoring systems and bag leak detection systems, labor costs for updating maintenance plans and conducting inspections, and the cost of operating monitoring equipment. The total estimated cost is \$11,856/yr.

We believe EPA's burden estimate is flawed and significantly understates the burden of the proposed rule. In fact, when calculated properly, one of the major costs of this proposed rule results from the large monitoring, recordkeeping, notification and reporting burden it imposes.

Based on ACC's review of the material in the docket, it appears that EPA's burden estimates do not take into account the following: (1) professional staff time needed for applicability determinations; compliance activities; or maintenance of extensive monitoring systems, (2) all

labor other than operator labor are values at in-house staff rates²¹ instead of contract engineering rates, (3) ongoing, appreciable costs that occur after the 3 year ICR compliance period, (4) SSM plan tracking SSM events, (5) timely preparation and filing of required notifications, (6) quarterly inspection of process equipment where OHAP is present at facilities with UHAP, urban metal HAP, metal HAP, (7) development of new leak detectors and repair (LDAR) programs (which do not correspond to present industry practice, i.e., operators inspect for leaks during their rounds) that involves identification and checking specific portions of equipment (e.g., openings), and (8) estimation of emissions from batch process vents, which are complex calculations, requiring extensive engineering time (approximately 1 week) and do not allow the use of historical information unless one demonstrates that the formulas in the Pharmaceutical MACT do not apply. ACC believes this level of sophisticated and costly engineering effort is unreasonable for area sources. To reduce the burden of the rule, we recommend that EPA allow the use of §63.1257(d)(2)(ii), rather than only allowing its use if the §63.1257(d)(2)(i) procedures do not apply. Further, EPA should revise the batch process vent definition to only include traditional batch process vents.

VI. Compliance Deadline

A. ACC supports EPA's proposed compliance timeframe for existing sources.

EPA proposes a three year time period for existing sources to comply with the rule requirements. We believe that this timeframe is needed so that area sources have adequate time to understand the final rule's requirements and to design, purchase, construct and put in place controls and systems for compliance. This time is particularly critical for smaller area sources, which have little or no onsite technical and support personnel and lack the basic infrastructure needed to facilitate the addition of new equipment. A three year compliance period for existing sources is also in keeping with other area source and MACT rules.

B. EPA has not provided adequate compliance time for new sources.

EPA proposes that new affected sources must be in compliance upon startup. A new affected source is defined as a facility that begins construction after October 6, 2008. Generally, the requirement to meet a standard at startup is reasonable if the facility has sufficient lead time to design, purchase, construct and put in place controls and systems for compliance. However, we can envision an existing source presently not subject to the rule becoming subject to it in the future due to unplanned process changes or the introduction of new a product, or sources transitioning from a major source to an area source. ACC believes to require compliance at startup is inappropriate in the following situations:

- A facility may add a new process or change an existing process that introduces UHAP at the site for the first time. Under the proposed rule *all* of the chemical manufacturing

²¹ The ICR Supporting Statement reports that Technical, management, and clerical average hourly rates for private industry workers were taken from the United States Department of Labor, Bureau of Labor Statistics, May 2007 for NAICS Code 325 at "May 2007 National Industry-Specific Occupational Employment and Wage Estimates," available at <http://stats.bls.gov/oes/current/oesrci.htm>.

operations at the site would have to comply at startup of the new or revised process, even though only one process may involve UHAP.

- Some UHAP are relatively ubiquitous (e.g., butadiene) and may appear unexpectedly as reaction byproducts, impurities in feed, process additives or as catalysts. In such cases, their presence may not be known until after the UHAP is present or the change is so minor that no significant lead time or process modification or construction is needed.
- Many sites must react quickly to market opportunities. If a new product introduces an UHAP to the site, the proposed immediate compliance requirement for *all* chemical manufacturing operations at the site would prevent the facility from taking advantage of the business opportunity.
- A process that is part of a major source can become an area source or part of an area source if the process is sold or otherwise comes under new ownership. This is a common occurrence in the chemical industry. Additionally, such transitions may occur because of changes in the amount of HAP used at a site if the Agency once-in always-in policy is revised as a way to encourage reduced HAP emissions. Presumably, if either of these transitions occurs and the new area source meets the UHAP applicability criteria, it must comply with this regulation. Sometimes there is little lead time for such changes because details of such transitions are not finalized until regulatory reviews are completed

There are two ways EPA could address these important inequities in the final rule. First, if EPA were to focus the rule's applicability based on an area source CMPIU and include a UHAP applicability threshold of 50lb/yr, most of these obstacles would be reduced if not altogether addressed. Second, if EPA does not adopt the ASCMPIU applicability basis, the requirement to comply at startup should be limited to the process that involves UHAP and other chemical manufacturing operations at the site should be given three years to come into compliance.

If EPA fails to address our applicability concerns and fails to provide a reasonable compliance time for the chemical manufacturing operations at an area source that are not being changed and do not emit UHAP, our industry's ability to introduce new products and address process improvements will be delayed and in some cases stifled. EPA must consider and address these potential adverse business and economic impacts in the Agency's economic analysis.

VII. Management Practice Requirements

Our comments immediately below address the management practice requirements proposed in §63.11495(a)-(d) and reflected in Table 2 of the proposed rule. The management practice requirements in §63.11495(e) through (h) for transfer racks, equipment leaks, cooling towers, and wastewater streams are specific to those emission types and are addressed in later in our Comments on Specific Issues and Rule Language.

- A. The proposed management practice requirements should be deleted.

We believe the proposed management practice requirements in §63.11495(a)-(d) should be deleted for the following reasons:

1. The proposed management requirements are not GACT for the chemical manufacturing industry.

ACC believes that the management practices proposed are not “generally available controls” for the chemical manufacturing industry in that they are not usually required by the Agency; are not generally practiced by chemical manufacturing area sources; and, are not cost effective when required for equipment that has little or no potential urban or other HAP emissions. For example, the management practices proposed in the rule for area source process vents and storage vessels are not required in MACT rules applicable to major chemical manufacturing sources for equipment with high concentrations of HAP; we therefore see no justification for EPA to impose these practices on area source equipment emitting relatively low levels of HAP.

In §63.11495(a) through (d), EPA proposes management practice requirements for *all* process equipment containing *any* HAP if the affected sources has batch, continuous or metal HAP process vents, or has a storage tank, whether or not emission limitations are imposed for the vents or storage tank. Since essentially all chemical manufacturing facilities where HAP is present will have at least one such vent or storage tank, these management practices would apply to essentially *all* chemical manufacturing process equipment in facilities with any UHAP. These proposed management practices are over and above the requirements for vents involving UHAP.

As discussed in more detail below, §63.11495 (a) through (d) requires *all* openings in chemical manufacturing process equipment to be covered and the covers to be in the closed position whenever the equipment is operating. Quarterly inspections are required to identify any leaking covers, which then must be repaired. EPA justifies these management practice requirements as follows:

In addition to emission limit requirements, we found that several States require pharmaceutical facilities to enclose certain types of equipment, except when operator access is needed for sampling, maintenance, or inspections. We also understand that some facilities inspect process equipment to check for leaks. We have no reason to believe that it would be infeasible for all chemical manufacturing area sources to operate equipment only when closed and conduct periodic checks for leaks. Therefore we evaluated the cost of the following management practices: (1) Cover all process tanks and mixing vessels during operation, (2) maintain covers in the closed position on all openings and access points in other process vessels, (3) conduct quarterly inspections to check for leaks from the process vessels and determine the integrity of the process vessels and ensure that covers are being used as specified in items 1 and 2, and (4) repair within 15 days any leaks in the process equipment. These management practices could be implemented by facilities with both batch process vent subcategories and both continuous process vent subcategories. Costs to implement such management practices are estimated to be approximately \$280/ yr for each affected facility.²²

²² 73 FR 58366-7

ACC believes these requirements are unprecedented and we fail to understand how these requirements can be considered GACT for any process equipment at the non-pharmaceutical manufacturing categories included in this area source rule. We respond to EPA's justification as follows:

- a) EPA should not extend requirements for certain equipment types and opening types found in pharmaceutical production to the other manufacturing categories included in this area source rule.

While covering or enclosing certain types of equipment may be prevalent in pharmaceutical manufacturing, process equipment in the chemical industry differs substantially in design, size, placement, etc., from that found in the pharmaceutical industry. EPA has chosen to group diverse source categories under this one area source rule but that does not mean that the equipment and practices in each of these manufacturing operations are identical and amenable to the same requirements. This proposed rule would require that every piece of process equipment that can contain HAP is subject to the management practice. This includes all openings of on reactors, distillation columns, process drums, exchangers and storage vessels without regard to the functionality of the opening.

Moreover, some process equipment in the chemical industry is allowed to have atmospheric vents open to the atmosphere for safety purposes, and because emissions are low and any potential controls are very expensive. For instance, a tank with atmospheric venting is common for low vapor pressure material storage, even if HAP is present. Atmospheric knockout pots are common on small water streams, if they contain HAP below control triggers.

ACC urges EPA to delete §63.11495(a) through (d), or at the very least to revise §63.11495(a) through (d) to narrow its applicability to pharmaceutical production. If EPA insists on applying these provisions to chemical manufacturing operations then it must address the functionality of openings and safety concerns for process equipment used in chemical manufacturing.

- b) The proposed management practices do not reflect GACT and will achieve minimal HAP emission reduction.

EPA states above that "...some facilities inspect process equipment to check for leaks." While unclear, it appears that EPA is referring again to pharmaceutical facilities. While the statement is correct in a broader context, i.e., most facilities perform leak inspections, checking for leaks is usually done as a requirement of applicable equipment leak regulations and is supplemented by ongoing audio, visual and olfactory (AVO) checks performed by operating personnel during their rounds. However, if EPA is under the impression that States independently require the monitoring of all openings on process equipment in addition to the normal equipment leak monitoring requirements, that impression is incorrect.

The chemical manufacturing industry is concerned about equipment leaks and relies on its operators and equipment leaks monitoring personnel to identify and address leaks. Operators watch for any audio, visual or olfactory indication of a hydrocarbon leak on their regular rounds and, similarly, personnel doing equipment leak checks watch for indications of leaks from any

potential emission source. However, a specific round of checks of "openings" is not a common practice in the chemical industry and does not reflect GACT or MACT. Since the industry already monitors for the potential emissions presumably addressed by these proposed management practices, ACC believes these proposed management practices are not going to achieve any additional emission reductions.

c) EPA's cost estimate for management practices is substantially underestimated.

EPA estimates management practices at \$280/yr for each affected facility. The basis for the estimate is found on page 3 of the continuous process vent backup document, EPA-HQ-OAR-2008-0334-0007. EPA assumed a technician would conduct the quarterly inspections and that, on average, it would take 1 hour to conduct the inspection and 15 minutes to document the findings and any actions taken. The technician labor rate was estimated to be equal to the rate for plant and system operators in the May 2007 BLS database for employees in NAICS 325000 (\$23.62/hr). EPA then raised the BLS rates by a factor of 1.4 for fringe benefits and 1.67 for overhead and profit. The total cost was estimated to be \$276/facility (4 times/yr x 1.25 hr/event x \$23.62/hr x 1.4 x 1.67 = \$276/yr).

Our review of the estimate identified key pieces of information such as number of openings, identity of covered equipment and maintenance information, are lacking. Also missing are estimates for ancillary equipment e.g. scaffolding, man-lift rental or other equipment to access high points. This missing data prevents ACC from being able to assess the accuracy of the EPA estimate through a comparison with member company conditions.

EPA's proposed management practices would apply to *all* process equipment and storage vessels at the site containing any HAP. We estimate a typical chemical manufacturing affected source has at least twenty pieces of process equipment that would be subject to these requirements. While a process drum typically has at least two man-ways, larger equipment such as distillation towers and large storage vessels may have many more. Additionally, many pieces of process equipment will have atmospheric vents and atmospheric safety valve outlet openings with stub-outs for piping and instrument connections. If we assume the Agency only would require inspection of normally *closed* man-ways, stub-outs, etc., we estimate it will take at least one week to develop the initial list of openings and equipment, and 4 hours per year to maintain the list. Inspection will require approximately three days each quarter, and a cost of several thousand dollars for scaffolding and man-lifts. ACC estimates management practices at this facility would require 40 hours of engineering time initially, and 4 hours of engineering time and 96 hours of technician time per year. The total annualized cost, using the EPA hourly rates, will be approximately \$6000/yr per facility, instead of \$280/yr per facility. Since every affected facility will have a process vent or a storage vessel, the management practice requirements will apply to every affected facility. Using EPA's estimate of 475 affected facilities ACC estimates \$2.8 million/yr instead of the EPA estimate of \$130,000/yr.

An ACC member company with an area source facility that emits less than 10 lbs. of UHAP per year offers the following estimates assuming the inspection requirements for batch process vents and storage tanks were applied to all chemical manufacturing operations at the facility, as is

presently proposed by EPA. The proposed inspection requirements will require at least one work-day per quarter (8 hrs. per quarter or 32 hrs. per year) and at least one work-day per year (8 hrs. per year) to document and repair leaks (assumes two leak repairs are required.) At a labor cost of \$30 per hour, the cost of applying the proposed inspection requirements to *all* chemical manufacturing operations and *all* HAP is \$1,200 per year. If instead, EPA focused the rule on processes using or emitting UHAP, the estimate at this area source facility would be one work-hour per quarter for the inspections (4 hrs. per year) and four work-hours per year for documenting and repairing leaks. The total cost for applying the proposed inspection requirements to UHAP only would reduce the price at this facility from \$1,200 to \$240 per year.

Lastly, we note that the record supporting this proposed rule lacks any discussion or demonstration on what, if any impact these onerous requirements will have on reducing emissions of UHAP, or HAP in general. Since no emission reductions associated with these requirements is given, the cost per ton of HAP reduction also cannot be estimated. However, even if one could estimate an emission reduction, we strongly suspect these management practice requirements would fail to meet EPA's cost effectiveness criteria for GACT.

2. Paragraphs (a), (b) and (d) of §63.11495 are confusing and duplicative.

Proposed paragraphs (a) and (b) of §63.11495 impose requirements on process equipment at the affected source if a continuous or batch process vent is present. Proposed paragraph (d) imposes management practice requirements if the process equipment performs a certain function (i.e., stores liquids containing OHAP). But the three paragraphs do not limit the process equipment subject to the requirements to equipment having the triggering characteristic or even to just that process unit. For example, as described in paragraph (a) all chemical manufacturing equipment at a site with a continuous process vent will be subject to compliance although it may also have equipment with a batch process vent described in paragraph (b) or a storage vessel described in paragraph (d). If these three separate paragraphs are maintained, they should only apply their requirements to equipment associated with the type of emission point or type of service that that paragraph addresses.

3. The requirements in (a), (b) and (c) are not limited to equipment in the affected source and are unclear as to what equipment is covered.

The first sentence in each paragraph applies the proposed management practice requirements to *all* process equipment in which OHAP, or metal HAP, is used to process material (or where metal HAP is present) and does not limit the requirements to chemical manufacturing process equipment. If these requirements are finalized, they should be limited to equipment in the chemical manufacturing affected source.

Additionally, the phrase "used to process material" in paragraphs (a) and (b) is ambiguous and unclear. All equipment processes material and we therefore do not believe this phrase limits the applicability of these requirements in any way. ACC requests that the Agency clarify the intent of this phrase.

Since there is no threshold applicability included in the proposed rule, these management practices presumably apply regardless of HAP concentration. This expands the proposed inspection and repair requirements to many times more the equipment that would be subject to the requirements if there were a reasonable HAP concentration criterion. We believe that equipment containing < 5 wt% HAP should be excluded from these requirements, if EPA decided not to delete them. This is the percentage HAP concentration commonly used for equipment leaks, a much more likely source of emissions.

Since there is no size cut-off specified for "process equipment", these proposed management practices could be construed to apply to containers, including drums and even bottles. Clearly such applicability was not considered or intended by EPA since it is not addressed in the docket documents, therefore containers should be specifically excluded from these requirements.

4. Paragraph (c) applies to both metal HAP process vents and emission points that do not emit metal HAP and therefore should be deleted.

On page 58356 of the proposal preamble, EPA states that:

We assumed metal HAP are emitted only from process vents. These emissions may be in either vapor or particulate form depending on the temperature of the unit operation. They are not emitted from other emission points because emissions from other emission points depend largely on evaporation of the pollutant. As metal based compounds have very low vapor pressures, they are unlikely to be emitted in significant amounts from other emission points.

However, proposed §63.11495(c) imposes management practice requirements on "all process equipment in which metal HAP is present during the process" even though EPA assumes metal HAP are emitted only from process vents. We request that this paragraph be deleted since metal HAP from process vents is addressed through the metal HAP process vent requirements.

5. If paragraphs (a) through (d) are not deleted, then EPA should establish an applicability threshold to reduce the costs and burdens of the proposed rule.

Without an applicability threshold based on HAP quantity, ACC is concerned that §63.11495 (a) through (d) will apply regardless of concentration or equipment type. For example, it is unclear whether the rule would apply to (1) equipment where OHAP is generated as a reaction product, (2) equipment where there is no "processing", (3) storage tanks, (4) surge control vessels, (5) transfer racks, (6) pipes, (7) heat exchangers, (8) process heaters, (9) containers, (10) drums and bottles, or (11) other ancillary equipment. Absent a clear Agency showing of GACT applicability and cost effectiveness, ACC recommends the Agency adopt a threshold level of < 5 wt % HAP for equipment to eliminate unnecessary costs and burdens to area sources.

6. It is unclear what openings are subject to the inspection and repair requirements, and the proposed rule could be read to include openings that must remain open for safety or other operating reasons.

In paragraphs (a), (b) and (c) of §63.11495 EPA is proposing to require that “all process equipment ... must be covered when in use, and closure mechanisms on other openings and access points in process equipment must be in the closed position during operation, except when operator access is necessary”. We assume the intent is to require that any opening (e.g., manways, hatches in batch equipment, etc.) in the process equipment be covered and not that the entire piece of equipment must be covered. If these provisions are not deleted, we request that EPA clarify this requirement.

Paragraphs (a) through (d) of §63.11495 also seems to limit when an opening can be uncovered, i.e., only when “access” is necessary. However, many openings must be opened to allow process fluids to flow, to collect samples, to perform maintenance to gas-free process equipment, and when the process equipment is hydrocarbon-free. If not deleted, ACC recommends the language be revised to state that openings should be covered when OHAP (or metal HAP) is present in the equipment and when the opening is not being used.

We also recommend that EPA clarify and narrow by way of exclusion the requirement for certain “openings” to be closed such as safety valves, vents that operate intermittently, or continuous vents that do not require control or are allowed to be opened under certain situations (e.g., storage tank and floating roof PV and bleeder vents). In order for a chemical manufacturing facility to operate safely, EPA cannot categorically require all valves to be closed.

7. Openings addressed in the proposed equipment leaks, transfer rack and wastewater provisions should be excluded from these management practice requirements.

EPA proposes requirements to detect and repair equipment leaks in §63.11498, which details the actions to be performed for “equipment” and that term is defined in §63.11502 as “each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system that contains or contacts OHAP...” These requirements seem to apply to equipment that is subject to other portions of the rule and are therefore duplicative and in some cases, potentially conflict with those other requirements. We see no reasons for duplicative requirements or for imposing requirements on equipment that the equipment leak section has concluded does not require inspection. At the very least, “equipment” as defined in §63.11502 of the proposal should be specifically excluded from these requirements.

As we discuss in more detail in our specific comments on the proposed equipment leak provisions, it is generally known and accepted that there is negligible environmental benefit and high costs associated with monitoring equipment containing < 5 wt% of regulated material (in the case of Part 61 and 63 standards for OHAP). This is particularly true for these proposed management practices because they apply primarily to potential leak sources that are extremely

unlikely to leak. But even if they were to leak, the proposed management practice requirements will achieve negligible HAP reduction even where HAP is present at high concentrations.

8. Requiring management practices for transfer racks (§63.11495(f) and §63.11499) and wastewater (§63.11495(h) and §63.11500) is duplicative, confusing and not justified as GACT.

As written, the rule applies duplicative or conflicting requirement for equipment subject to different provisions. The equipment leak requirements of the proposed rule in §63.11498 address pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that contain or contact organic HAP²³. Many of these equipment types could be construed as having “openings”. There is no basis for duplicative requirements or imposing requirements on equipment that the equipment leak section has concluded do not require control or inspection. Thus, “equipment” as defined in §63.11502 of the proposal should be specifically excluded from these requirements.

Proposed §63.11495(f) and §63.11499 address transfer racks and proposed §63.11495(h) and §63.11500 address wastewater. Proposed §63.11495(a), (b) and (c) seem to override the GACT decisions for these equipment types and duplicate and/or conflict with many of the requirements in those sections. For example, EPA has concluded that GACT for wastewater is that equipment handling wastewater containing $\geq 10,000$ ppm partially soluble HAP and controlled with cover and inspection requirements similar to the management practice outlined in §63.11495(a) through (d). ACC believes requiring these management practices exceed GACT so to avoid confusion and conflict with other provisions of the proposed rule, we recommend that equipment subject to the transfer rack and wastewater sections of the rule should be excluded from these management practices.

a) The terms “covered,” “in a closed position”, and “inspected” must be clarified.

The requirement that openings must be “covered” and “in a closed position” should be clarified to mean covers and closures must be adequate to prevent leaks detectable by AVO inspection. This will avoid unnecessary interference with the operation of openings (e.g., a sample point used frequently throughout a day, a pressure/vacuum (PV) vent on an atmospheric pressure tank or a bleeder vent on a floating roof). In addition, the term “inspection” also needs to be clarified. We are concerned that some regulators may believe that an inspection means that covers must be gasketed, bolted and that Method 21 measurement, rather than AVO is required.

b) Inaccessible and unsafe openings should be excluded from these practices.

Most of the openings addressed by these management practices are used infrequently (e.g., manways are only opened during unit outages) and thus are not usually accessible from

²³ Presumably only equipment containing or contacting 5% organic HAP is actually subject to the equipment leak requirements (i.e., is GACT).

permanent platforms. In some cases, it may be unsafe to observe the covers even from cranes or scaffolds because of temperature and pressure conditions. There will be a cost to access such openings and that cost is significantly larger than the small benefit to be derived by including these openings. We therefore recommend that the Agency exempt any openings that are difficult or unsafe to monitor, as defined in subpart H of Part 63, from these requirements. The proposed management practices and control requirements for storage tanks in the proposed regulatory language are not consistent with EPA's statements of intent in the preamble.

9. The proposed management practices and control requirements for storage tanks in the proposed regulatory language are not consistent with EPA's statements of intent in the preamble.

In the preamble, EPA states that it created two subcategories for storage tanks: large and small. The large tanks are those that meet the size and maximum true vapor pressure thresholds for control in the performance standards for volatile organic liquid storage vessels in 40 CFR part 60, subpart Kb. The small tanks are defined as those that do not meet the subpart Kb thresholds. EPA proposes that management practices be required for *all* storage tanks that store organic HAP. In addition, EPA proposes that owner/operators of large tanks also comply with the control requirements of subpart Kb, but small storage tanks only need to comply with the management practices²⁴.

However, in proposed §63.11495(d), which cross-references §63.11497 and item 4 in Table 2, EPA requires *all* storage tanks to comply with the emission controls of subpart Kb. EPA needs to correct this inconsistency and exempt small storage tanks from any emission control requirements of subpart Kb. If EPA chooses instead to leave the proposed regulatory language as is, it needs to explain how the subpart Kb control requirements are GACT for the small storage vessels.

EPA's proposed management practices for storage tanks include requirements to cover all opening and access points, to conduct quarterly inspections, to repair any leak within 15 days of discovery and to keep records of these activities. EPA justifies this management practice because: "To the best of our knowledge, the management practices described above are standard operating procedures at most area sources. Thus, no emission reductions are expected for this control option, and we expect no additional costs would be incurred".²⁵ EPA estimates it would take a technician one hour to conduct the inspection and fifteen minutes to document findings and any actions taken.²⁶

ACC member companies indicate that it is not standard operating procedure at area sources to cover or inspect openings. Furthermore, if such action were required it would take significantly more time than the assumed one hour and would entail substantial costs for little environmental benefit. EPA must incorporate more accurate assumptions, costs and impacts in its analyses before it can consider whether these activities should be included in the final rule. Moreover, if the provisions for storage tanks remain unchanged, EPA should include significant capital costs

²⁴ *Id.* at 58360.

²⁵ Docket document EPA-HQ-OAR-2008-0008, pages 2-3.

²⁶ *Id.* at page 3.

such as new roofs, installation of PV vents, floating roofs, etc. in its cost and impact analyses since these items will be required.

10. The proposed management practices as applied to small tanks are not GACT and interfere with the safe operation of the tanks.

The proposed management practices in §63.11495(d) appear to override EPA's GACT determination by requiring all storage vessels to be "covered" regardless of size and stored material. ACC is not aware of another regulation that requires small tanks, water tanks, or tanks storing low vapor pressure material to be covered. As EPA knows, fixed roof storage tanks that are not open to the atmosphere have openings such as PV vents to prevent tank collapse due to over- or under-pressure. These types of vents must remain open in order for the storage tank to operate in a normal and safe manner. EPA's proposed management practices would prohibit atmospheric tanks and the openings on fixed roof tanks required for their safe and normal operation. These types of vents must remain open in order for the storage tank to operate in a normal and safe manner and ACC requests that EPA correct this oversight.

VIII. General Provisions and SSM Provisions

A. Proposed applicability of almost all of the Part 63 General Provisions is overly burdensome and unjustified.

Overall, area sources are limited in their technical expertise and staff resources and have relatively small emission potential when compared to major sources. With this in mind, we fail to understand why EPA would propose that area sources must meet the same level of compliance assurance required from major sources. We provide specific comments on proposed Table 4, Applicability of General Provisions, later in our comments.

B. General provisions interactions need to be clarified.

The proposed rule extensively references other regulations. Part 63 subpart SS has sections (e.g., on monitoring and performance testing) that are intended to replace Part 63 General Provisions requirements. Other subparts of Part 63 have their own General Provisions applicability tables and the Part 60 General Provisions apply for Part 60 subparts such as Part 60 subpart Kb. These overlapping and often conflicting sets of general requirements are confusing and should be clarified. We recommend that language be added to the final rule clarifying that only the Part 63 General Provisions as specified in Table 4 apply to subpart VVVVVV. Also, from Table 4, the Agency should make clear that subpart SS performance testing and monitoring provisions supersede §§63.7 and 63.8 where compliance with subpart SS is required in Table 2 of final subpart VVVVVV.

C. The costs associated with the SSM plan requirement should be included in the burden estimates.

Due to the lack of exemptions, exclusions and the extremely broad applicability of this proposed rule, ACC requests that the Agency consider the following assumptions and include the

resulting projected costs in the record. Generally, it requires 24 hours per site to develop an SSM plan utilizing contract resources. Assuming conservatively that 50% of the 475 facilities estimated by EPA are subject to the rule and will be required to develop an SSM plan, we estimate that 5700 hours of effort will be required in the initial three years for this activity. Using EPA's in-house cost estimate for technical resources of \$77.24/hr and adding 25% to reflect contract rather than in-house staffing, yields a cost of \$550,000 or \$180,000/yr for the initial three year period.

IX. Other General Issues

A. Existing controls that do not achieve the removal requirements in the proposed rule should be grandfathered because the cost for adding incremental controls or replacing existing controls is not justified by the small emission impact.

EPA's supporting analyses for this rule gives no consideration to existing control devices that may be achieving less than the proposed control efficiency. In some cases, emission reduction projects (either voluntary or required under VOC or State rules or permits) at chemical manufacturing area sources have included the installation of air pollution control equipment and/or the application of management practice standards for emissions that are subject to the control requirements in this proposal. Whether such measures are required under a federally enforceable permit or regulation or are implemented voluntarily, the existence and adequacy of those requirements should be recognized by EPA in the area source standard through a grandfathering provision. We see no justification for EPA to require sources with existing controls either to install new equipment or to change their monitoring, recordkeeping and reporting systems to achieve an incremental reduction in emissions when the costs of doing so will greatly exceed the benefits. ACC requests that EPA include the grandfathering provision in the Pharmaceutical Manufacturing MACT at §63.1254(a)(3)(ii) in the final rule. This provision provides that:

Process vent, storage tank, and transfer operation control devices installed on or before the proposal date that reduce uncontrolled emissions of total HAP by greater than 80% by weight, but less than the existing source control efficiency standard, are sufficient to demonstrate compliance with the standard, and

Such a control device must be replaced or upgraded to achieve the required reduction upon future reconstruction or replacement.

The following is an example of why grandfathering of certain controls is important for chemical manufacturing at an area source. An area source has a vent with a pre-control HAP vent rate of 10 tpy HAP that is currently controlled at 85%, a typical reasonably available control technology (RACT) value. This vent would currently be emitting 1.5 tpy of HAP after control. If the continuous process vent control requirement of 95% is imposed on this source, the additional emission reduction would only be 1 tpy, not the 9.5 tpy EPA assumed as the basis for setting the control requirements. Yet, the cost for achieving the 1tpy reduction to get to the required 95% control could easily be equal to the cost identified by the Agency, since the existing control often will require replacement to achieve this incremental improvement. In this example the cost effectiveness would be only a tenth of that calculated by the Agency for this requirement (i.e.,

the cost of control per ton of emission reduction would be approximately ten times the cost per ton if the vent were not controlled). Clearly imposing such incremental control requirements cannot be justified as GACT. Therefore, ACC believes vents with greater than 80% by weight HAP emission reduction controls be grandfathered to eliminate these disproportionate costs.

B. ACC supports the exemption from Title V requirements for sources not otherwise requiring a Title V permit.

In line with our position that areas sources are often ill equipped to handle technical requirements at reasonable cost, we support EPA's conclusion that it is not justified to require chemical manufacturing area sources to obtain Title V permits just because they are subject to this rule. This conclusion is consistent with the position EPA has taken in many other area source rulemakings.

C. Overlaps with regulations in Part 60 and Parts 260 - 270 must be addressed in the rule in order to minimize burdens and to be consistent with the Information Collection Request submitted to the Office of Management and Budget.

EPA states in the "Duplication" section of the Information Collection Request supporting statement, on page 3:

Some of the affected facilities under this NESHAP will also be subject to requirements under 40 CFR Part 60 new source performance standards in subparts Kb, VV, DDD, III, NNN, and/or RRR. Some chemical manufacturing area sources also may be subject to 40 CFR parts 260 through 270. In all such cases, the area source NESHAP identifies the rule that takes precedence or specifies that the owner or operator must identify and comply with the more stringent requirements. These provisions eliminate duplication.

Some of the affected facilities under this NESHAP also may be subject to requirements under 40 CFR Part 60 NSPS in subparts G, H, T, U, V, W, X, and/or PP. There is no duplication of effort in these cases, however, because the standards and associated information collection requirements are for different pollutants that are not regulated under the area source NESHAP (e.g., acid gases or fluorides).

Unfortunately, the proposed rule does not adequately address all of the provisions discussed in the above paragraphs. The ICR assumed these provisions would be in the regulation and that there would not be overlapping burdens, but that is not the case. It is critical that overlapping burdens be minimized in the final rule. Additionally, overlaps with the new Part 60 subpart VVa and the proposed Subpart YYY should be addressed. We make specific recommendations in our comments dealing with specific emission types.

D. Overlaps with Part 61 and Part 63 rules should also be addressed.

Potential overlaps between this proposed rule and a number of Part 61 rules, including subparts F/V, J/V, L, Y, BB and FF should be addressed. We request that EPA clarify in the final rule

that wherever these Part 61 standards apply to a subpart VVVVVV affected facility, compliance with the Part 61 standard is considered compliance with subpart VVVVVV for that emission type since the Part 61 standards clearly are more stringent.

Some area sources impacted by the proposed rule are already complying with Part 63 MACT requirements. This can occur, because the area source was previously a major source or because the Part 63 standard was imposed through permitting. Regardless of the reason, Part 63 MACT standards are more stringent than the GACT standards in this rule and the final rule should specify that compliance with a Part 63 MACT standard for any emission type and HAP type (i.e., organic HAP or metal HAP) is considered compliance with subpart VVVVVV.

E. Emission averaging should be allowed.

We believe some chemical manufacturing area sources may find emission averaging helpful in allowing them to optimize their compliance investments and manage ongoing burdens. Thus, we request EPA include an option for emissions averaging in the final proposed rule. ACC would be willing to partner with the Agency to streamline the process for area sources using an emissions averaging approach and to reduce the tremendous burdens that have traditionally discouraged the use of emission averaging.

F. Where not already provided, design evaluations should be allowed as an alternate to compliance testing and any compliance testing should allow use of total VOC or TOC as a surrogate for OHAP.

Design evaluations are allowed for demonstrating initial compliance with the storage tank control provisions and the halogen removal requirements for halogen scrubbers, however the Agency is proposing to require compliance testing for other emission controls. For area sources, there is likely to be only a small emissions impact based on differences in control device performance and we therefore see no reason for the Agency to require costly testing. Design evaluations generally will be available since they are part of designing new controls. If they are not already available, design evaluations can usually be prepared at a lower cost than the performance of compliance tests. Thus, we request that the Agency specify that design evaluations are acceptable to demonstrate initial compliance wherever it is not already allowed.

The Polymer & Resins IV (P&R IV) MACT rule allows facilities to use either total VOC or speciated HAP as their compliance determination mechanism, instead of using the MON alternate standard. Total VOC or total TOC compliance demonstrations are often far more cost effective than speciated compliance demonstrations, and are a more conservative performance indicator than speciated HAP. Therefore, ACC requests that EPA allow chemical manufacturing area sources the ability to use either total VOC or total TOC as an alternative to HAP speciation for any compliance demonstration required in the final rule.

Comments on Specific Issues and Rule

I. General Process Vent Issues

A. The process vent control level does not represent GACT.

ACC believes the Agency's proposed requirement for area sources to achieve 95% control for continuous process vents and 90% control for batch process vents is not GACT and is unnecessary since it applies to vents with small emissions potential. Most state implementation plans contain RACT program requirements for VOC that set control efficiency between 81% and 90%, for example Ohio EPA's OAC 3745-21-07. These VOC RACT regulations represent GACT for the chemical manufacturing area source category. As such, we believe 85% removal represents GACT for most process vent controls and we encourage the Agency to adopt this threshold in the final rule. Setting a removal requirement appreciably above the RACT requirements will require area sources with non-combustion existing controls to invest significant dollars to achieve incremental emission reductions, altogether replace existing controls, or, worst case, shutdown the impacted process.

In most cases, the incremental cost of achieving an additional 5-10% control is significant and not justified by the potential incremental emission reduction. Area sources often do not have flare systems or other readily available combustion controls typically used by major sources, and thus must rely on other approaches such as condensers, carbon adsorption systems or other material recovery systems. These technologies have emission removal efficiencies in the 85%-95% range and are a better reflection of GACT than the combustion controls that are the basis for the MACT standards. Setting the standard so that non-combustion controls can be utilized also reduces secondary generation of NO_x, particulate, and CO₂ and encourages material recovery and thus has some additional environmental benefits

B. OHAP compliance options for routing to fuel gas or back to process are needed.

ACC is concerned the Agency has failed to exclude streams routed to fuel or process uses from the definitions of continuous process vent and batch process vent and recommends those uses be included in the rule as compliance options in §63.11496 and Table 2. The return of vent streams to process use or their use as a fuel is a better solution than routing them to control devices. All other chemical industry rules encourage these alternative uses by excluding such streams from the definition of process vents or by establishing these uses as compliance options with no performance test or monitoring requirements. The proposed rule does not appear to allow such beneficial uses for OHAP process vents and we encourage the Agency to correct this oversight by adding these dispositions as compliance options to §63.11496 and Table 2 and by excluding them from the process vent definition. Additionally, Table 2 should indicate no performance test or monitoring requirements apply in such cases.

C. "Unit operation" should be defined.

Unit operation is a critical concept in the proposed definitions of continuous process vent and batch process vent and needs to be defined as it is in the HON. We recommend use of the HON definition, as follows, since it is clearer and broader than the MON and Pharmaceutical MACT definition.

Unit operation means one or more pieces of process equipment used to make a single change to the physical or chemical characteristics of one or more process streams. Unit operations include, but are not limited to, reactors, distillation units, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.

D. The requirements for combined process vent streams should be clarified.

§63.11496(c) specifies requirements when continuous and batch process vents are combined as follows:

Combined streams. If you combine OHAP emissions from batch process vents and continuous process vents, you must comply with the most stringent standard in Table 2 of this subpart that applies to any portion of the combined stream. The TRE index value for continuous process vents and the annual emissions from batch process vents shall be determined for the individual streams before they are combined in order to determine the most stringent applicable requirements.

This paragraph presumes these process vents are being combined prior to meeting the requirements of the regulation appropriate to that process vent type. If a continuous process vent with TRE <1.0 is controlled (e.g., with a condenser) as required by the rule and the outlet of the control is mixed with uncontrolled batch process vents, the batch process vents would require control. Thus, we recommend that the first sentence of this paragraph be revised as follows:

Combined streams. If you combine uncontrolled OHAP emissions from batch process vents and uncontrolled continuous process vents, you must comply with the most stringent standard in Table 2 of this subpart that applies to any portion of the combined stream.

E. Halogen HAP reduction requirements for combusted process vents should be clarified, made internally consistent and control device monitoring should be simplified.

Proposed §63.11496(d) sets requirements for control of halogenated vents that are combusted as follows:

(d) Combustion of halogenated streams. If you use a combustion device to comply with the emission limits for OHAP from batch process vents or continuous process vents, you must use a halogen reduction device to meet the emission limit in either paragraph (d)(1) or (2) of this section in accordance with § 63.994 of subpart SS of this part and the requirements referenced therein.

(1) Reduce overall emissions of hydrogen halide and halogen HAP after the combustion device by greater than or equal to 95 percent, to less than or equal to 0.45 kilograms per

hour (kg/hr), or to a concentration less than or equal to 20 parts per million by volume (ppmv).

(2) Reduce the halogen atom mass emission rate before the combustion device to less than or equal to 0.45 kg/ hr or to a concentration less than or equal to 20 ppmv.

1. The first sentence of (d) should be clarified.

Despite the header, we believe paragraph (d) can be misconstrued to require halogen controls if any halogen is present in a vent stream and we recommend the sentence be clarified as follows:

If you use a combustion device to comply with the emission limits for OHAP from a halogenated batch process vent or a halogenated continuous process vent....

2. The (d)(1) removal requirement should be clarified.

To improve consistency and reduce confusion in the final rule and with already promulgated chemical manufacturing MACT rules, the proposed requirement in (d)(1) to reduce emissions to ≤ 0.45 kg/hr should be based on halogen atom mass rather than hydrogen halide and halogen HAP. While the actual difference in removal requirements is small, confusion would be eliminated by maintaining the same basis as is used for determining if the stream is "halogenated" and as is required by paragraph (2) if control is done prior to combustion.

3. Definitions of "halogenated" and "hydrogen halide and halogen HAP" are needed.

The proposed rule requires control of HCl, Cl₂, and HF generated from the combustion of "halogenated" process vents. Neither "halogenated" nor "hydrogen halide and halogen HAP" is defined in this proposal and thus definitions from the HON or MON would apply, as specified in proposed §63.11502. However, the HON and MON rules have different definitions, since the HON rule considers bromine and the MON rule does not. Since this rule and the MON rule are based on essentially the same datasets, we believe the MON definitions are the most correct and request that the definitions of "halogenated vent stream," "hydrogen halide and halogen HAP" and "halogen atoms" from §63.2550(i) of the MON be incorporated into §63.11502.

4. The Agency should clarify how area sources determine a halogenated stream.

ACC recommends the rule reference §63.115(d)(2)(v) of the HON as the methodology to determine a halogenated process vent.

5. Testing and monitoring of halogen vent controls should be simplified.

EPA's proposed paragraph (d) above specifies that halogen control devices meet the requirements of §63.994 of subpart SS. This section requires performance testing of halogen scrubbers and extensive continuous monitoring. However, §63.2465(c) of the MON allows design evaluations in place of performance tests for halogen scrubbers. Since potential halogen

emissions from area sources are limited and therefore do not justify the high costs and burdens associated with performance testing, we ask that the Agency incorporate design evaluations as an alternative to performance tests.

Section §63.2550(k)(3) of the MON allows daily pH checks in place of expensive, continuous pH analyzers for halogen scrubbers handling only batch process vents. We believe that this cost and burden reduction should be extended to continuous process vent scrubbers and incorporated into the final area source rule. Continuous pH analyzers add little compliance assurance, if any, but impose costs exceeding \$100,000²⁷, significant ongoing burdens, and should not be required for area sources.

F. Design evaluations should be permitted in place of performance tests for area source process vents.

EPA's proposed rule requires that HAP emissions be reduced by 90% for batch process vents, and 95% for continuous process vents and metal process vents. EPA's proposal requires that the owner or operator comply with the requirements of §63.982(c), which references the performance testing requirements contained in §63.997, for both continuous and batch process vents. In addition, the proposed rule requires performance testing for metal HAP process vents.

Conducting performance tests is a complex activity that requires optimum process operating conditions and typically requires either an outside contractor or expert internal resources to conduct the tests. ACC member companies have found in the past that the cost of conducting performance tests ranges from \$10,000 to \$25,000 per test, assuming no major equipment modifications are required to provide access. The tests typically involve a number of personnel to manage unit operations, coordinate and conduct the tests. For batch process vents, preparation of synthetic blends are often also required to allow testing at worst case conditions which add additional cost and burden. While the costs and resources may be reasonable when included in a MACT rule applicable to major sources, ACC believes they are not justified for area sources where emission potential is more limited. Additionally, under EPA's proposed rule batch vents will have to be controlled on a site-wide basis, therefore most area sources will be required to perform multiple performance tests if they have uncontrolled emissions exceeding 19,000 lb/year of HAP. Additional testing would be required if halogen scrubber controls are required for any of the process vents. We find nothing in the record (costs analyses or ICR burden estimates) to indicate that EPA considered the costs of these extra tests or the additional burden they would place on area sources. Furthermore, we believe that EPA has underestimated the costs of performance testing; one way to reduce the costs of the final rule would be for EPA to withdraw its proposal for these extra tests.

We recommend the use of a design evaluation or a combination of a design evaluation, engineering calculations, or information from the equipment supplier that demonstrates that the control device will achieve the required destruction or removal efficiency be allowed as an alternative for all process vent control performance test requirements.

²⁷ While the pH analyzer itself does not cost this much, there are significant costs for providing the utilities, data handling and housing for the analyzer.

We suggest a new paragraph (g) be added to §63.11946 as follows:

(g) Option for demonstrating compliance with HAP and halogen emission removal efficiency – Except when complying with paragraph (e) of this section, the owner or operator may prepare a design evaluation and supporting documentation to demonstrate compliance with the HAP and halogen removal efficiency requirements for continuous process vents, batch process vents or metal HAP process vents, rather than carrying out a performance test. The design evaluation must address the operating characteristics of the emission control device or halogen scrubber; be based on operation at a waste gas stream flow rate consistent with the conditions required for performance testing; and, include a representative concentration of regulated HAP under which it would be most difficult to demonstrate compliance with the removal efficiency requirements.

II. Continuous Process Vents

A. The proposed definition of continuous process vent is inconsistent with the preamble and §63.107 of subpart F of the HON.

Continuous process vent is defined in proposed §63.11502 as:

Continuous process vent means the point of discharge from a unit operation in chemical manufacturing operations of a gas stream that originates as a continuous flow from a continuous operation and contains OHAP.

This definition does not reflect the description presented in the preamble, the supporting analyses, the rulemaking database, industry practice or other chemical industry regulations.

The emissions information in the databases for this proposed rule included “process vents” as generally defined in the industry, EPA and State regulations (i.e., does *not* include: streams that are not potentially released to the atmosphere, process gas streams, streams before recovery, vent streams from storage tanks, equipment leaks or other equipment that are regulated separately). However, the proposed definition (1) lacks the key process vent criterion that it be released to the atmosphere or to a control device²⁸, (2) defines every continuous gas stream within a process that contains any OHAP as a continuous process vent without regard to the potential for release to the atmosphere, (3) does not exclude vents from unit operations that are storage tanks or other equipment types which are regulated separately in this rule and (4) designates the vent as upstream of any recovery device (i.e., at the point of discharge from a unit operation).

ACC requests that the Agency take into account “recovery” since it is (1) the basis for the data used in this rulemaking (i.e., NEI and TRI data reflects emissions data after any recovery), (2) the most cost effective method of reducing emissions and (3) used in all process vent control rules. See, for example, §63.107(c) of the HON where continuous process vent is defined as the point of discharge to the atmosphere (or the point of entry into a control device) that meets one

²⁸ On page 58356, of the proposal preamble it is stated that “A continuous process vent is defined as the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream that meets three conditions ...”: The proposed definition incorporates the three conditions but not the release to the atmosphere or control device criterion.

of the following conditions: (c)(1) is directly from an air oxidation reactor, distillation unit, or reactor; or (c)(2) is from an air oxidation reactor, distillation unit or reactor after passing solely through one or more recovery devices, or (c)(3) is from a device recovering only mechanical energy from a gas stream that comes directly from (1) or (2) above. We assume the Agency's failure to account for "recovery" in the proposed rule was an oversight. However, if not and it is the Agency's intent in this area source rulemaking to significantly change the definition for a continuous process vent from that described in the preamble and historical Agency practice, ACC requests that the basis for such a change be explained and that supporting rule analyses be provided. Since this would be such a significant departure from established practice, we also believe the Agency would have to re-propose that change and allow industry to further comment on it before finalizing this rule.

Even if the continuous process vent definition is corrected as we propose above, it will remain much broader than the definition used in any other chemical industry rule. It will also be unsupported by the database used in this rulemaking. As such, it will result in many continuous vents being subject to the management practice standard and the requirement to estimate their Total Resource Effectiveness (TRE) value, with little commensurate environmental benefit.

For instance, continuous vents containing < 50 ppmw HAP and gas streams used as fuel are not considered process vents under the HON, MON, or most other process vent rules. They are also not subject to any requirements other than the fact that they meet that concentration or disposition criteria. However, under this proposed rule, continuous vents containing as little as 1 ppm of HAP, as well as gas streams sent to "fuel use", would require a TRE estimate and would be subject to the management practice requirement. EPA has not justified this burden and the estimates associated with this burden are not reflected in the proposed rule's cost and burden estimates. ACC believes the exceptions to the continuous process vent definition in §63.107 of the HON rule, which are also referenced in §63.2550(i) of the MON rule, should be incorporated into the final area source rule.

There is certainly no basis for making the continuous process vent definition broader for area sources than for major sources, particularly since the impacts of such a change were not addressed in the rulemaking record. The specific definitional exceptions that are needed to make the final area source rule internally consistent and consistent with existing MACT rules and current industry practice are as follows:

Gas streams that contain less than or equal to 0.005 weight percent total OHAP at the point of discharge.

Gas streams that are:

- A relief valve discharge.
- A leak from equipment subject to §63.11498 of this subpart.
- A gas stream going to a fuel gas system as defined in §63.101.
- A gas stream exiting a control device used to comply with this proposed rule.

- A gas stream transferred to other processes or unit operations (on-site or off-site) for reaction or other use in another process or unit operation (*i.e.*, for chemical value as a product, isolated intermediate, byproduct, coproduct, or for heat value).
- A gas stream transferred for fuel value (*i.e.*, net positive heating value), use, reuse, or for sale for fuel value, use, or reuse.
- A storage vessel vent or transfer operation vent subject to §63.11497 or §63.11499 of this subpart.
- A vent from a waste management unit subject to §63.11500 of this subpart.
- A gas stream exiting an analyzer.

These exemptions are justified because (1) the exempted stream is regulated elsewhere in the subpart, (2) the exempted stream is not being discharged to the atmosphere or a control device, (3) the exempted stream has already met the control requirements of the rule, (4) control of the exempted stream is not GACT because such streams are technically infeasible to control and/or (5) are never cost effective to control.

Overall, we suggest the Agency simply reference §63.107 of the HON as the definition of continuous process vent. However, absent that action, the issues and exceptions identified above must be addressed in the final continuous process vent provisions of this rule.

B. The proposed continuous process vents control trigger for TRE value of ≤ 1.0 is reasonable if the continuous process vent definition is resolved.

We support use of the TRE index as the basis for identifying which continuous process vents can be cost effectively controlled. EPA estimates a TRE level of 1.0 to represent a control cost of \$3000/Ton of HAP removed. While we believe this cost per ton is higher than the GACT cost appropriate for the chemical manufacturing area source category, it is not unreasonable for continuous process vents and would reflect typical industry practice if the continuous process vent definition is resolved as discussed above.

C. TRE calculation burdens should be minimized and sources should be allowed to designate continuous process vents as $TRE < 1.0$.

ACC is concerned over the significant burdens associated with calculating the TRE for a continuous process vent. The Agency could and should minimize these burdens by specifically allowing sources to designate vents as being $TRE < 1.0$ and by allowing engineering estimates as the basis for the calculation in all cases. Under the TRE calculation procedure referenced in the proposed rule (§63.115(d) of subpart G), sources with an estimated TRE between 1.0 and 4.0 must test the vent stream for the TRE equation variables for use in the TRE equation calculation. Given the small HAP emission potential from area source continuous process vents, these costly vent stream measurements have not been justified by the Agency and therefore should be eliminated.

D. The proposed OHAP requirements will apply to far more sources than were considered in EPA's backup documents and therefore should be narrowed appropriately in the final rule.

According to Docket Document EPA-HQ-OAR-2008-0334-0007 "Control Options and Impacts Analysis for Continuous Process Vents Chemical Manufacturing Area Source NESHAP," EPA believes that "263 of these area sources emit at least one of the eight urban OHAP for which regulation is required". However, the proposed rule requires sources that emit any of the metal UHAP also to be subject to the OHAP requirements. The addition of metal UHAP will result in many more than 263 sources being subject to OHAP requirements under this proposal²⁹. We believe EPA needs to consider and address this fact in its cost and burden analyses.

We also believe it is unreasonable for sources emitting metal UHAP to trigger urban OHAP requirements and the continuous process vent analysis in the docket by EPA reflects such a separation. We recommend that EPA develop the final rule consistent with its supporting analysis and revise the rule applicability so OHAP requirements are not applicable unless urban OHAP is emitted. Absent this appropriate narrowing of the applicability provision, the control and cost analyses must be revised to reflect the broader applicability of the proposal.

E. The costs associated with existing controls on continuous process vents must be considered in the analyses supporting the final rule.

In Appendix A to Docket Document EPA-HQ-OAR-2008-0334-0007, EPA estimates process vent emissions from area source facilities in the NEI database. According to Note A in Table 1, EPA did not include in its control option analysis those process vents that the NEI database shows as being controlled. According to pages 4, 5 and 6 of the Appendix A tabulation, there are at least 60 continuous process vents with controlled emissions exceeding 1,000 lb per year of HAP. Based on the data presented in Appendix A, it appears likely many of these 60 continuous process vents will have a TRE \leq 1.0 and will become subject to this rule.

Vents with controls resulting in emission levels below the proposed rule's requirements will require control upgrades if they are not grandfathered. If these vents are not grandfathered, EPA must include the costs associated with control upgrades, performance tests, monitoring, recordkeeping and reporting in its economic and burden analyses.

Even if these sources are grandfathered and new controls are not required, all continuous process vents with TRE \leq 1.0 and any that are designated would have to meet the performance test, monitoring, recordkeeping and reporting requirements of the rule. None of these costs are reflected in the economic analyses for continuous process vents or in the rule burden analyses presented in the preamble or in the ICR.

²⁹ EPA estimates in Docket Document EPA-HQ-OAR-2008-0334-0005 that there are 224 area sources that emit urban metal HAP. It is not clear in the record how many of these sources might also emit urban OHAP and might already be included in the continuous process vent analyses.

F. EPA should clarify that sources may use recovery to maintain a continuous process vent at a TRE > 1.0.

Proposed §63.11496(b)(3) specifies monitoring requirements for situations where the TRE of a continuous process vent is maintained above 1.0, but is less than 4.0. However, the proposed rule does not specify that sources are allowed to use recovery to maintain the TRE above 1.0. This issue is particularly critical if the proposed continuous process vent definition is not corrected to indicate that it is applicable after the last recovery device. ACC believes that recovery is not only the best environmental approach to reducing emissions, but it is also the most cost effective, consistent with GACT, and allowed under other process vent rules. Therefore, ACC requests §63.11496(b)(3) be revised as follows to make clear that recovery may be used:

Rather than meeting the requirements of Table 2, existing or additional recovery devices may be used to maintain the TRE of a continuous process vent at a value of greater than 1.0. If a recovery device is used to maintain the TRE index value at a level greater than 1.0 and less than or equal to 4.0, you must comply with §63.982(e) and the requirements specified therein.

G. EPA should address overlaps between this rule and NSPS DDD, III, NNN and RRR, and subpart AA of Part 264 and Part 265.

Continuous process vents subject to the control requirements of this proposed rule may also be subject to the requirements of the six process vent rules cited above. Therefore, provisions should be included in the final rule to eliminate overlapping requirements. We recommend that in situations where both the final area source rule and one of these six rules apply, sources have the option of choosing which rule to comply with but must use the more stringent percent removal requirement.

III. Batch Process Vents

A. The proposed batch process vent definition should be clarified and made consistent with this rule's preamble and database, other regulations applicable to the chemical manufacturing industry, and general industry practice.

The proposed definition of batch process vent in §63.11502 is:

Batch process vent means the point of discharge from a unit operation in chemical manufacturing operations of a gas stream that contains OHAP and flows intermittently.

However, the proposed definition is not consistent with Agency statements in the preamble to the proposed rule. For example, on page 58356 of the preamble EPA states:

A batch process vent is defined as a point of discharge from a single unit operation or from a common header that connects multiple unit operations through which an OHAP-

containing gas stream is, or has the potential to be, released to the atmosphere. Specifically excluded from the proposed definition of a batch process vent are continuous process vents and any other emission points that are subject to other standards in the proposed rule (e.g., a storage tank or wastewater treatment unit), gas streams routed to a fuel gas system, and certain elephant trunk systems.

Similar to the proposed definition for continuous process vent, the preamble indicates that the Agency intends that only points of discharge where gas streams have the potential to be released to the atmosphere are to be considered batch process vents, but the proposed rule definition does not include that criterion. The omission of this critical criterion would result in every gas stream that does not flow continuously being considered a batch process vent including process streams going from one piece of process equipment to another. We believe there is no basis for this proposed rule to regulate a gas stream that is not being released to the atmosphere or a control device. Furthermore, these non-continuous gas streams were not included in the data or the analyses supporting this rulemaking.

Moreover, ACC is concerned that the specific exclusions cited in the preamble were not included in the batch process vent definition. Thus, other emission point types (e.g., from storage vessels) addressed in this proposed rule could be regulated as batch process vents. And finally, the proposed definition fails to exclude streams routed to fuel gas as the preamble states. We note that §63.2550(i) of the MON rule, which is applicable to both major and area sources, specifically excluded certain gas streams from the definition of batch process vent. EPA has provided no basis for significantly expanding the definition of batch process vent from the MON and applying it to area sources in this rule. EPA provides no explanation as to why it has exempted certain gas streams, etc. from the definition of batch process vent for major sources and area sources in the MON, but wants to regulate these gas streams from area sources in this rulemaking.

ACC requests the Agency adopt the MON definition of batch process vent in the final rule, or if not, provide the basis for deviating from that definition.

1. The concentration and mass exemptions from the MON should be included in this final rule.

Under other rules (e.g., the MON and Pharmaceutical MACT), the batch process vent definition excludes low concentration and low mass streams³⁰. These criteria are important, because they eliminate from consideration streams that are not technically feasible or cost effective to control. In addition, exempting these streams significantly lessens the burden of trying to identify and characterize extremely low HAP content streams. ACC is concerned that batch process vents containing even 1 ppm of HAP would require HAP emission estimates and management practice controls. We note that the costs and burdens associated with the control of low HAP content streams are not reflected in the proposed rule's estimates. If properly considered, we believe EPA would conclude that control of low HAP content streams is not GACT because it is not the general practice of the industry and it is not cost effective. Furthermore, these low HAP content

³⁰ Both the MON and Pharmaceutical MACT exclude streams containing <50 ppmv HAP. The MON also excludes streams with total annual HAP emissions of <200 lb/yr.

streams would not have been included in the NEI database since negligible HAP emissions are not generally reported. ACC, therefore, strongly encourages the Agency to include the concentration and mass criteria found in §63.2550(i)(8) of the MON batch process vent definition in the final area source rule.

2. As it did in the MON rule, EPA should exclude emissions from pails, totes, drums, bottles and other containers from the batch process vent definition.

Containers are used in some processes for a variety of tasks, some of which might be construed as unit operations. For instance, adding an inhibitor to a 55 gallon drum of product might be considered a mixing operation. Similarly, some might consider catching a sample in a bottle as a unit operation. Emissions from containers are intermittent and would be considered potential batch process vents under this proposed rule's broad definition. Emissions of HAP from these situations are negligible and furthermore, were not considered in this rulemaking. However, they would be subject to control if the batch process vent control trigger is exceeded based on emissions from other batch vents at the site. This situation was not considered by EPA in the rulemaking record, is not cost effective, does not reflect GACT, and should be excluded from the definition of batch process vent as it was in the MON rule.

B. The MON definition of "process condenser" should be incorporated into the proposed rule.

The process condenser concept is critical to identifying batch process vent emissions, since the referenced emission calculation procedures specify that the emissions calculation is performed at the outlet of the process condenser. ACC believes the MON definition of process condenser is appropriate since the calculation procedure specified in this proposed rule is from the MON³¹. Since there is a definition in both the Pharmaceutical MACT and the MON rules, §63.11502 of the final subpart VVVVVV should incorporate the MON definition of "process condenser."

C. EPA's GACT analysis for batch process vent controls is flawed and is not consistent with rule applicability. Batch process vent control requirements should be on a process unit basis to better reflect the Agency's analysis, industry practice and GACT.

The batch process vent control provisions apply to all batch process vents in chemical manufacturing operations at a site where any UHAP is present. However, the analysis that serves as the basis for the control requirements, assumes all batch process vent emissions emanate from one vent (or easily manifolded vents) and that the control requirement could be met with one relatively simple control device³². In reality, there typically will be multiple batch process vents at sites and in most cases that will mean multiple control devices will be needed to achieve the control requirement proposed or large, costly collection systems will have to be installed to route the many scattered vents to a central control device. This is true even if the batch process vent definition is revised as suggested above. As a result the cost effectiveness

³¹ The proposal requires using § 63.1257(d)(2)(i) and (ii) of Pharmaceutical MACT as modified by § 63.2460(b)(1) through (5) of the MON rule for estimating batch process vent emissions.

³² See Docket Document EPA-HQ-OAR-2008-0334-0006

calculations used by the Agency overstate the value of the proposal by a factor of 2³³ or more and understate the costs of the proposal by a similar amount.

Control of very small, intermittent vents is precedent setting, very costly, sometimes technically infeasible and certainly not GACT. For these reasons, the Agency normally exempts small and low HAP streams from the batch process vent definition. The supporting analyses for this rulemaking does not identify this issue because the model plants established by the Agency are atypical and do not reflect the presence of small batch vents distributed throughout a site.

The cost and cost effectiveness calculations used by the Agency in this rulemaking would be more accurate if controls are only required where there are intermittent emissions that can be easily collected. This can be accomplished by applying the batch process vent control requirements by process unit rather than by site. In this way, large expenditures would be avoided for processes that emit little HAP from batch process vents but happen to be co-located at a site where a process has significant batch process vent emissions. This approach is consistent with the manner in which data are submitted to the NEI, and the structure of the MON and other MACT rules applicable to the chemical manufacturing industry.

An ACC member provides the following example of operations at a site and the problems triggered by the proposed site-wide approach (the batch process vent count is based on the normal definition of batch process vent, not the proposed broader definition). Under the proposed definition, very small streams would need to be controlled to achieve the 90% requirement. We also note that this site would require more batch vent controls and incur more capital cost than the Agency considered in its analyses.

- 5 process areas.
- 20 batch reactors with at least one batch process vent on each.
- No uncontrolled batch vent is 20 ppmv HAP or less.
- With the exception of three pressure reactors in Process Area 4 routed to one thermal oxidizer, there are no manifolded vents.
- The only UHAP used/generated in the plant is acetaldehyde.
- Process Area 4 is the only area with >19,000 lb/yr of uncontrolled batch process vent emissions. This process area is currently controlled to about 95%, using a thermal oxidizer permitted for 98.6% removal for the largest vents.
- Organic HAP emissions from the other 4 process areas range from 30 lb/yr to 14,000 lb/yr. Primary HAP is methanol.
- Site-wide batch vent control level is currently 84%.
- To increase plant-wide batch vent OHAP emission reductions from the baseline 84% to 90%+, would require a capital investment of \$1,500,000 – 1,750,000 (per funding quality estimates) and achieve a reduction of 3-5 Tons of OHAP.
 - Virtually none of this additional reduction would reduce UHAP (maximum of 44 lb reduction of acetaldehyde plant-wide).
 - Cost of this additional HAP reduction is \$300,000 to \$400,000 per ton of OHAP.

³³ At least twice as many control devices will be needed as estimated by the Agency due to the erroneous assumption that sites will only have to control a single batch process vent, if the control requirement is triggered.

- Significant methanol-containing wastewater streams would be generated and cost of their treatment is not included in the estimate.
 - The level of control required exceeds that which the MON would require if it applied.
 - Depending on how the production mix changes in the future, additional controls may be required.
1. The assumption of one batch process vent per site is unrealistic.

In Docket Document EPA-HQ-OAR-2008-0334-0006, EPA explains its use of model plants to evaluate the cost effectiveness of possible control options. However, these models assume only one batch process vent per site and appear to have considered only vents that meet the traditional definition of batch process vent. It is true that, in some cases, most batch process vent emissions from a particular process occur from one vent or several vents that may be easily routed to a single control. However, the assumption that one vent represents a typical site or that one vent encompasses all batch vent emissions from a process is incorrect.

Furthermore, there are many cases where there are several batch process vents from a single process that because of their characteristics, are best controlled separately (e.g., with individual condensers). ACC suggests that a more appropriate evaluation of GACT and proposed controls would have resulted if EPA has used models containing plants with several batch vents per process and several processes per site.

ACC is concerned that if not revised, the proposed rule will require controls for a significant number of very small vents as a result of invalid assumptions, an unprecedented batch process vent definition and application of the batch process vent control trigger on a site-wide basis; none of which was considered by EPA or is supported in the administrative record.

2. The assumption of one control device per site is unrealistic.

In evaluating potential controls EPA assumed one control device per site. However, as shown in the example above, most sites will have multiple processes with batch process vents and, despite the averaging provision, many sites will have to either install additional control devices or large and expensive collection systems. Additionally, many area sources using scrubbers or condensers as controls will be forced to install combustion controls in place of, or in addition to existing controls in order to reduce all OHAP in already controlled streams to proposed rule levels. ACC believes the Agency must update its economic analysis to reflect realistic site control costs before it can conclude that the site-wide applicability of the batch process vent control provisions should be included in the final rule.

3. The cost for halogen scrubbers was not considered.

On page 58364 of the preamble, EPA states that it “We determined after review of information for batch process vents that many of the facilities with the highest OHAP emissions are emitting methylene chloride”. Yet, it appears cost and cost effectiveness analyses, which are based on combustion, do not include any costs for halogen scrubbing. ACC requests that the economic

analysis be corrected and include the cost of halogen scrubbing equipment to reflect the accurate economic impacts of this proposed rule.

D. ACC believes the proposed control trigger of 19,000 lb/yr HAP emission is GACT if the Agency adopts a 'process unit' basis.

Following its review of the NEI database and analysis of control options and costs, EPA concludes that 19,000 lb/yr of uncontrolled OHAP emissions from batch process vents is the appropriate control trigger. EPA's analysis concluded that controlling batch process vents with less than the 19,000 lb/yr emission rate would result in costs of about \$25,000/ton versus \$2300/ton for controlling batch process vents above 19,000 lb/yr. This analysis is valid for a 'process unit' basis when one control device is associated with batch process vents. However, the cost projections are invalid if multiple 'process units' are involved.

On pages 58364-65 of the preamble, EPA provides the basis for establishing the two batch process vent subcategories. EPA concludes that emissions $\geq 19,000$ lb/yr represent solvent based, high production volume processes with concentrated emission streams. ACC believes this conclusion is valid when applied to individual processes, but is invalid when applied to entire sites. Where multiple processes are present exceeding 19,000 lb/yr means multiple processes are present at the site or that there is at least one solvent base, high production volume process at the site.

E. The costs associated with batch process vents that are currently controlled are not considered in the economic analysis.

In Appendix A to Docket Document EPA-HQ-OAR-2008-0334-0006, EPA provides its estimate, derived from the NEI database, of batch process vent emissions from area source facilities. As stated in Note A, in Table 1, EPA did not consider process vents that were indicated as "controlled" in the NEI database, in its control option analysis. According to pages 4, 5 and 6 of the Appendix A tabulation, there are at least 9 sites with controlled emissions where the uncontrolled HAP exceeds 19,000 lb per year and thus would be subject to this rule.

Even if these sources are grandfathered and new controls are not required, all batch process vents at sites with uncontrolled batch process vent emissions and any that are designated would have to meet the performance test, monitoring, recordkeeping and reporting requirements of the rule. None of these costs are reflected in the economic analyses for process vents or in the rule burden analyses presented in the preamble or in the ICR.

F. The burdens associated with calculating batch process vent emissions are unreasonable and should be reduced.

Evaluating batch process vent emissions is particularly onerous and costly. Proposed §63.11496(a)(3) requires recalculation of emissions each time there is a process change. Many sources frequently change product mix and would therefore have to frequently perform batch vent emission calculations. Given the limited level of technical resources available to area

source sites and the high cost of contract resources, area sources should be allowed to use engineering estimates to simplify batch process vent applicability calculations.

1. Sources should be allowed to use engineering estimates.

According to Table 1 of the ICR Supporting Statement, historical information can be used for estimating emissions and thus, EPA believes no cost is incurred. However, the proposal requires sources to calculate emissions using the specific procedures in §63.1257(d)(2) of the Pharmaceutical MACT, as modified by the MON rule. These are difficult calculations which require extensive engineering time and do not allow the use of historical information unless it can be demonstrated that the formulas in the Pharmaceutical MACT do not apply. Undertaking these emission estimates can easily involve several weeks of engineering effort. Since this level of engineering effort is unreasonable and unavailable for area sources, we recommend that the rule be changed to allow use of engineering estimates in all cases as stated in §63.1257(d)(2)(ii), rather than only allowing its use if the §63.1257(d)(2)(i) procedures do not apply.

2. Controlled sources should be allowed to back calculate uncontrolled emissions.

Since there are no uncontrolled permit limits for reference, ACC is concerned with the costs and burdens associated with establishing the HAP and VOC batch process vent estimates needed for the emission calculations for batch process vents that are already controlled. As one way of addressing this issue, we recommend allowing sources with existing controls to (1) back calculate inlet HAP and VOC concentrations based on the controlled outlet permit limit(s), (2) the control removal device capability and (3) the sources' knowledge of the HAP and VOC concentrations in the vent, where not indicated in the applicable permit. Nonetheless, an ACC member company reports that even using back calculations, its consultant estimates at least 100 hours of effort at a cost of \$125 per hour (\$12,500) to review and update the site emission estimates to provide an accurate uncontrolled emission rate for the one batch process vent at the site.

3. The Polymer and Resin MACT IV rule (P&R IV) emission calculation procedures should be allowed as an alternative to the Pharmaceutical MACT procedures.

Section 63.1323(b) and (e) of Part 63 subpart JJJ (P&R IV) provide an alternative batch vent emission calculation procedure to that in the Pharmaceutical MACT. ACC considers P&R IV procedures better suited to calculating emissions from certain process types than are the Pharmaceutical MACT procedures and we encourage the Agency to allow them as an alternative, which would reduce the burdens imposed by this proposed rule.

4. A HAP usage calculation should be allowed as an alternative to emission calculations.

Under §63.2460(b)(7) of the MON rule, sources may monitor non-reactive OHAP usage instead of calculating emissions to demonstrate that a process is below the 10,000 lb/yr batch process

vent trigger. To provide a significant burden reduction, ACC requests the Agency provide a similar procedure in the final rule relative to the 19,000 lb/yr control trigger for batch process vents since it is often much easier to measure OHAP usage than to calculate vent emissions.

5. Existing emission calculations used for compliance with another State or Federal rule should be allowed for determining emissions from batch process vents.

Similarly, the Agency should not require additional batch vent calculations where they have been completed for an air permit and accepted by the permitting authority.

G. It is inefficient to require testing of batch process vent controls at worst case conditions and the costs for that requirement are not reflected in the proposed rule's cost estimates.

Section §63.2460(c) of the MON, which is applicable to area sources through Table 2 of the proposed rule, requires performance testing batch process vent controls at worst case conditions. This requirement presents significant economic consequences since the potential emission reductions (i.e., < 25 tons total HAP from an area source) do not justify the costs of generating multiple synthetic blends to perform such testing or the process outages required. ACC believes testing at maximum representative conditions would provide adequate compliance assurance and significantly lower costs and burdens, in view of the relatively minimal emission potential. This burden reduction can also be addressed by allowing design evaluations rather than testing, as discussed above in our general comments.

H. The wording of §63.11496(a)(1) should be clarified.

Proposed Section §63.11496(a) and §63.2460(b)(1) – (5) require sources to estimate their annual batch process vent emissions, references the calculation process, and(b)(5) specifically provides exceptions to the requirement to calculate emissions in certain cases where a source elects to designate a set of batch process vents as Group 1. As written, we find these provisions unclear and we request that EPA revise the wording in §63.11496(a)(1) of the final rule to state the following:

- (1) Except as provided in §63.2460(b)(5) of subpart FFFF of this part, you must determine the sum of OHAP emissions from all of your batch process vents using test data or the procedures in § 63.1257(d)(2)(i) and (ii) of subpart GGG of this part and §63.2460(b)(1) through (4) of subpart FFFF of this part.

We also note that in referencing the calculation procedure for batch process vent emissions, §63.11496(a)(1) of this proposal mentions §63.1257(d)(2) of the Pharmaceutical MACT. However portions of §63.1257(d)(3) are specified to be used by the MON adjustments to the procedure in §63.2460(b) and we therefore request that §63.11496(a)(1) mention both (d)(2) and (d)(3) to avoid confusion.

IV. Metal HAP Process Vents

A. The MHAP control requirements should be based on a per vent basis.

The rule proposes to require control of all metal HAP-containing chemical manufacturing process vents at sites where metal HAP emissions exceed 100 or 400 pounds. The supporting analysis in Docket Document EPA-HQ-OAR-2008-0334-0005, "Control Options and Impacts Analysis for Metal Process Vents Chemical Manufacturing Area Source NESHAP Control Options and Impacts Analysis for Metal Process Vents Chemical Manufacturing Area Source NESHAP", is based on model plants where all emissions are assumed to come from a single vent with a single control system.

Therefore, the cost effectiveness and GACT determinations were based on individual vents with the co-proposed 100 and 400 lb/yr control triggers. Yet, the rule applies the requirement based on the sum of metal HAP emissions from all metal HAP-containing vents at a site, no matter how many or how many separate control systems would be required. Unlike for OHAP, where streams can be piped, to centralized controls, albeit at a high cost, particulate containing vents can only be ducted when dealing with small distances. Thus, the rulemaking record only supports imposing the metal HAP control requirements on an individual vent basis and the final rule should be revised accordingly.

B. The incremental cost of setting the MHAP control trigger at 100 lb/yr is not justified in the record. EPA should finalize the 400 lb/yr trigger.

On page 5 of Docket Document EPA-HQ-OAR-2008-0334-0005, EPA indicates a control trigger of 400 lb/yr will result in a reduction of 570 tpy of particulate, including 40.7 tpy of MHAP. If the control trigger is 100 lb/yr, additional emission reductions of 40 tpy of particulate, including 3.1 tpy MHAP are anticipated. EPA predicts the cost of the additional reductions would be \$1,370,000 per year, yielding a cost effectiveness of \$33,660 per ton of particulate or \$442,000 per ton of MHAP for the increment. Thus, the incremental cost of control for the additional 300 lb/yr of metal HAP reduction resulting from a 100 lb/yr trigger is 11 times the cost per ton of metal HAP reduction achieved by the 400 lb/yr trigger and is clearly not justified. EPA should include the 400 lb/yr trigger in the final rule.

C. Process types where metals need to be considered should be clear and processes where MHAP is only present in fix bed installations should be exempted

The Agency should indicate the conditions under which area sources must determine when metal emissions are to be evaluated. Given the pervasive nature of metals, it is critical that sources not be required to dedicate extensive resources searching for impurity levels of metals in feeds or process streams. It is important, therefore, that if available, MSDS be allowed to be used to determine MHAP concentrations.

Furthermore, it is clear from the source information listed on page 2 of Docket Document EPA-HQ-OAR-2008-0334-0005 that metals are only an issue where products containing metals are being produced. It is the production of catalyst and recycling of catalysts that have potential

significant metal HAP emissions, rather than the use of catalysts in fixed beds. Thus, to avoid additional and unnecessary burdens, we believe sources should not have to consider potential incidental emissions from catalysts and adsorbents in fixed beds. We request a specific exemption from the metal HAP requirements for processes where metal HAP is only present in fixed bed installations.

Similarly, small amounts of metals, including urban metal HAP, are used as nutrients in biological or fermentation processes. These metals are incorporated into the products and wastes of these processes and not emitted to the atmosphere. These processes should be exempted from all final subpart VVVVVV requirements.

Finally, the Agency should make clear in the final rule that metals contained in construction materials are not subject to subpart VVVVVV.

D. A metal HAP usage calculation should be allowed as an alternative to emission calculations.

Under §63.2460(b)(7) of the MON rule, sources may monitor non-reactive OHAP usage instead of calculating emissions to demonstrate that a process is below the 10,000 lb/yr batch process vent trigger. A similar procedure should be provided in the final subpart VVVVVV relative to the 100 or 400 lb/yr control trigger for metal HAP process vents. It is sometimes easier to measure metal HAP usage than to calculate vent emissions and this alternative would provide a significant burden reduction.

E. Metals control device testing requirements should be adjusted.

Proposed § 63.11496(f)(3)(ii) requires that sampling must be conducted at both the inlet and outlet of the control device and the test must be performed at representative process operating conditions. In some cases, testing of the inlet mass flow rate of metal compounds may be physically impossible. For example, some facilities have storage bins that store materials that contain some metals. Sintered metal filters (i.e. metal filters with a very small pore size that filter particulate matter emissions in a manner similar to a baghouse) are used to significantly reduce the particulate matter emissions as the solid material is transferred into and out of the storage bins. The sintered metal filters are designed either to be fixed or screwed into a tube sheet at the top of the vessel, or placed in a filter housing on top of the vessel. In either case, it would not be practical to measure the concentration or mass flow rate of the particulate matter on the inlet side of the sintered metal filters.

We believe that where a sintered metal filter is integral to the process vessel, the rule should not consider that situation to be a vent. Where the sintered metal filter or other control is not integral to the process vessel, EPA should adjust the emission testing requirements so that the owner/operator can demonstrate compliance with the percent removal requirements by testing only the exhaust gas stream. This could be done using one or more of the options provided below. However, the first two options require an engineering estimate of the particulate concentration inside the vessel which may be difficult to achieve, thus we strongly prefer the third option.

- Allow the owner/operator to conduct performance testing on the outlet of the control device and to determine an emission level or particulate matter concentration that is representative of the required emission reduction percentage through an engineering estimate.
- Allow the owner or operator to rely on information from the filter supplier in order to demonstrate the required percentage reduction percentage.
- Similar to the requirement for floating roofs in tanks, require annual integrity inspections of such systems and waive the initial compliance demonstration.

In addition, EPA's performance testing requirements appear to require the testing of each individual emission point that might be emitting MHAP compounds. Since there could be a number of small individual emission points that emit particulate matter and are similar in nature (e.g., seven similar storage bins with the same type of emission controls), we suggest the owner/operator be allowed to test a representative emission point instead of testing all emission points.

F. A metal emission limit or opacity limit should be specified in addition to the removal requirement.

At low metal or particulate inlet concentrations, high percent removals may not be technically achievable with typical RACT controls. In addition to specifying a percent removal requirement for metal HAP, the Agency should include a post-control metal concentration (or opacity if particulate control is specified as a surrogate for metals) for situations where low metal or particulate concentrations are entering the control.

EPA has used particulate matter (PM) as a surrogate for metal HAP in past rules. For instance, in the area source rule for primary zinc production proposal, EPA explained its reasoning in the preamble section "Selection of PM as a Surrogate for Metal HAP" as follows:

Because the types and quantities of MHAP vary in zinc ore, it is not practical to establish individual standards for each specific MHAP listed as an UHAP that could be present in zinc ore. Instead, we decided to establish standards using PM as a surrogate for these Urban HAP metal emissions. Controlling PM emissions will also control the metal HAP since these compounds are contained within the PM, i.e., they are in the particulate form as opposed to the gaseous form. The available air pollution controls for the particulate HAP metals are the same as those used for PM controls at primary zinc production plants. These controls capture particulate HAP metals non-preferentially along with other PM, thus making PM a reasonable surrogate for these HAP metals. We have used this approach in several other NESHAP in which PM was determined to be a surrogate for the HAP metals in the PM. [71 FR 59315 (October 6, 2006)]³⁴

³⁴ PM as a surrogate for metal HAP was included in the final rule. See, 72 FR 2930 (Jan. 23, 2007)

EPA's reasoning in using PM as a surrogate for metal HAP in the zinc production area source rule is also applicable to chemical manufacturing operations and should be included in the final rule.

V. Storage Tanks

A. Storage tank definition exemptions should be made consistent with the preamble.

On page 58368 of the preamble, EPA states that:

A storage tank is a tank or other vessel that is used to store organic or inorganic HAP that are used in or produced by the chemical manufacturing operations, except for the following: Vessels permanently attached to motor vehicles, pressure vessels, vessels storing organic liquids that contain HAP only as impurities, wastewater storage tanks, and process tanks³⁵.

ACC requests the proposed regulatory definition reflect the preamble to exclude vessels storing organic liquids that contain HAP only as impurities or wastewater storage tanks. These are important exemptions to reduce the burden of the rule and eliminate a conflict between the wastewater requirements of the rule and the storage tank requirements. Both of these exemptions specified in the preamble should be added to the final definition of storage tank in §63.11502. If instead the Agency chooses to regulate these vessels, the Agency will need to develop the supporting GACT determination, cost and burden analyses and explain why it is including these vessels in the final definition.³⁶

B. Storage tank control requirements should be limited to tanks exceeding a certain size and storing materials exceeding a certain organic HAP vapor pressure, as specified in the preamble.

On page 58368 of the preamble, EPA states:

...for the subcategory of large storage tanks (i.e., those that exceed the size and MTVP thresholds in subpart Kb), we are proposing GACT to be: (1) Management practices ... and (2) each storage tank must be equipped with an internal or external floating roof, or the displaced vapors must be routed to a control device that reduces emissions by at least 95 percent.

However, nowhere in the proposed regulatory language are the control requirements described above limited to storage tanks that exceed the size and vapor pressure thresholds in Part 60 subpart Kb. Furthermore, the vapor pressure in subpart Kb is for the volatile organic liquid stored in the tank. We believe this rule should be based on the OHAP partial vapor pressure since those are the pollutants being addressed at chemical manufacturing area sources. Additionally, OHAP is the basis for the GACT and cost analyses presented in the preamble and

³⁵ PM as a surrogate for metal HAP was included in the final rule. *See*, 72 FR 2930 (Jan. 23, 2007)

³⁶ These types of tanks were not included in EPA's analyses in Docket Document EPA-HQ-OAR-2008-0334-0008.

docket documents for this rulemaking, and would make this final rule consistent with the MACT rules for the chemical manufacturing industry which base their storage vessel requirements on OHAP partial pressure.

ACC believes the Agency should add size and OHAP partial vapor pressure criteria to Item 4 of Table 2 and only apply the control requirements currently listed in the table to storage vessels exceeding those criteria. Specifically, as stated in the preamble and docket, controls are GACT only for storage tanks exceeding 20,000 gallon capacity and storing liquids with an OHAP partial vapor pressure of 4.0 psia and tanks exceeding 40,000 gallon capacity and storing liquids with a 0.75 psia OHAP partial vapor pressure.

C. Grandfather provisions for storage tanks are needed.

As discussed above, many tank emissions are currently restricted with condensers or other controls, but these controls do not achieve the proposed 95% efficiency. The incremental cost of replacing such existing controls is significant and can cause sources to replace recovery technologies with destruction technologies that would not produce the intended environmental benefit. Therefore, ACC requests that the Agency include a grandfathering provision for existing storage tanks controls already achieving 85% or greater efficiency. In doing so, the Agency would decrease the costs and burdens associated with its proposed rule and correctly reflect the GACT cost effectiveness criteria, established by EPA's analysis, for this emission category.

D. Compliance with Part 63 subparts SS & WW should be allowed as an alternative method of compliance for storage tanks.

Subparts SS and WW of Part 63 represent the Agency's latest thinking on control of storage tanks and should be allowed as a compliance alternative to subpart Kb for tank control requirements. Subpart WW contains the most flexible, effective and slotted guidepole requirements of any of the subparts that address floating roof controls. Subpart SS contains planned routine maintenance provisions for non-floating roof controls, which provide a mechanism for sources to meet the general duty to maintain their controls in the most cost effective manner. Tanks often are controlled with dedicated devices and are not connected to general plant systems that can provide backup for control outages. Removing tanks from service for control maintenance is costly, difficult, takes extended periods of time, and causes unnecessary emissions. Since subpart SS and other newer regulations provide for reasonable maintenance outages of storage tanks vent controls, area sources should be able to comply with these newer regulations. Additionally, allowing compliance with subpart SS would provide consistency with the process vent requirements proposed for subpart VVVVVV, which uses subpart SS for its control requirements. This would allow sources to cost effectively combine vents for control, where spacing allows. If an area source should choose to follow subpart Kb, provisions should be added to the final subpart VVVVVV for planned routine maintenance as provided in subpart SS. Also, as discussed above, the closed vent system monitoring requirements in subparts Kb and SS should be revised to reflect an AVO only requirement, the equipment leaks basis for this rule.

E. Vapor balancing should be allowed.

The storage tank provisions outlined in Item 4 of Table 2 require that each impacted tank operate and maintain a floating roof or closed-vent system and control device in accordance with subpart NSPS Kb. ACC requests that the final rule allow a vapor balance alternative which would permit the source to capture and route displaced storage tank vapors to a railcar or tank truck. As an example, the MON rule provides this type of alternative for storage tanks in 40 CFR 63.2470(e).

F. EPA significantly underestimates the number of storage vessel controls that will be required.

ACC believes that many more than EPA's estimate of five tanks will require controls. Part of this discrepancy is that, according to Docket Document EPA-HQ-OAR-2008-0334-0008, EPA only considered controls for tanks storing UHAP. However, as drafted, the proposed rule requires control of *all* storage vessels at a site meeting the size and vapor pressure criteria and storing any material containing any HAP above impurity levels. Thus, unless the Agency limits the storage tank provisions to storage tanks that only contain UHAP, all of the capital cost and burden estimates for this portion of the regulation are grossly underestimated.

G. Overlaps between this rule and other tank rules should be addressed to allow storage tanks subject to subpart VVVVVV to comply only with that subpart.

Part 60 subpart Kb, Part 61 subpart Y, Part 264 subpart CC and Part 265 subpart CC and possibly other tank rules may apply to storage tanks at area sources. Since this rule's requirements are as stringent as the requirements in any storage vessel rule, we recommend additional language specifying that storage tanks subject to the control requirements for storage tanks of this rule be allowed to comply with only this subpart.

VI. Transfer Operations

A. The data and analysis supporting the proposed rule demonstrates that the controls currently in place at chemical manufacturing area sources are already GACT and that no additional requirements are justified. The proposed rule should be revised to incorporate criteria that reflect the controls currently in place and should impose no additional requirements.

The administrative record supporting this rule indicates there are ninety-four chemical manufacturing area sources with OHAP emissions from transfer operations.³⁷ The record also shows that all but three of these facilities already employ submerged fill or an equivalent control. Yet the Agency proposes to impose costly additional requirements on all of these facilities by (1) regulating *all* transfer operations, (2) extending the requirements to low volume and low vapor pressure transfer operations, (3) imposing extensive management practice requirements,

³⁷ Docket Document EPA-OAR-HQ-2008-0334-0009, "Control Options and Impacts for Transfer Operation Control Measures Chemical Manufacturing Area Source Standards."

including the required use of a submerged fill pipe and disallowing use of equivalent or better controls. We discuss each of these proposed requirements below.

1. The definition of transfer operations should not include all transfer operations.

The proposed definition of transfer operations in §63.11502 is:

Transfer operations means all loading into tank trucks and rail cars of liquid containing OHAP from a transfer rack. A transfer rack is the system used to fill tank trucks and railcars at a single geographic site. Transfer operations do not include the loading to other types of containers such as cans, drums, and totes.

Existing MACT and RACT rules for transfer operations at chemical manufacturing operations all include throughput criteria to define where controls are required so that the loading of wastes during maintenance activities and other occasional loading operations are not regulated. These rules also include vapor pressure criteria so that controls are not required for insignificant emissions. However, in this rulemaking EPA is proposing requirements for *all* loading, which does not reflect industry practice or GACT and makes the proposed control requirements impractical and costly.

According to the administrative record, EPA developed the proposed requirements using the 2002 NEI data and assumptions about the type of operations likely to load organic liquid products.³⁸ The loading of incidental waste, low vapor pressure materials and maintenance material were not considered and EPA's GACT decision does not reflect those operations. Controlling low vapor pressure and small amounts of material loading has negligible emission reduction potential and is not cost effective. For these reasons and because such loading was not addressed in the rulemaking record, it should not be included in the final rule.

Additionally, major and area source chemical manufacturing sites vacuum trucks are used to collect wastes and wastewaters. These operations are conducted at various locations around a site and are generally handled under the container portions, if any, of wastewater rules. Under EPA's proposed broad definition of transfer operations, these waste operations might be construed to be included. For that reason, ACC requests that the Agency specifically exclude these operations from the final transfer operation definition since they were not considered by the Agency in its cost and impact analyses. In so doing, EPA will reduce the cost and burden associated with its proposed rule.

Where vapor balancing back to a storage vessel is used for all loading at a transfer operation location, there is no emission potential. These situations are generally excluded from the transfer operation definition and should be excluded here. Where vapor balancing is not used for all operations, it is generally treated as a control and it is so identified in Table 2 of this proposal.

³⁸ *Id.*

While it may be clear in the current definition, we also request the Agency specifically include marine operations in the last sentence of the definition, confirming that they are not regulated under this rule.

ACC is concerned that the proposed transfer operations requirements would apply if only one molecule of OHAP were present in a stream. Addition of the HAP vapor pressure criteria discussed above to the transfer operations definition would eliminate this problem and eliminate the burdens of identification, HAP vapor pressure determination, record keeping and management practices. However, if the transfer operations definition is not amended to include a HAP partial pressure criterion, streams where OHAP is only present as an impurity should be excluded from the transfer rack definition.

ACC believes that incorporating reasonable throughput and vapor pressure criteria in the transfer operation definition is needed to make the final rule match the supporting analyses and GACT.

We believe that the HON and MON Group 1 throughput and vapor pressure criteria are reasonable reflections of GACT and the analyses done in support of this rulemaking. These criteria should be incorporated into the transfer operations definition in this rule. Specifically, only transfer operations that load more than 0.65 million liters/year of liquid that contain OHAP with a rack-weighted average partial pressure, as defined in §63.111 of Part 63 subpart G, ≥ 1.5 psia should be considered transfer operations and this criteria should be included in the final rule.

Overall, we recommend the transfer operation definition should be changed to:

Transfer operation means the loading of more than 0.65 million liters/year of liquid that contain OHAPs with a rack-weighted average partial pressure, as defined in §63.111 of Part 63 subpart G, ≥ 1.5 psia into tank trucks and rail cars at a transfer rack. A transfer rack is the system used to fill tank trucks and railcars at a single geographic site.

Transfer operations do not include:

- (i) the loading to other types of containers such as marine vessels, vacuum trucks, cans, drums, and totes,
- (ii) the loading of liquids containing OHAP as impurities, or
- (ii) racks, arms, hoses, etc. where all loading is controlled by vapor balancing tank truck or tank car vapor to a storage vessel.

2. The management practice requirements for transfer racks should be deleted because they generally are not GACT, provide no emission reduction, are unclear, and conflict with other requirements and regulations.

The proposed rule contains two sets of requirements for transfer operations, control requirements and management practice requirements. As drafted, EPA imposes both sets of requirements on *all* transfer operations. The proposed management practice requirements in §63.11495(f) are as follows:

For all transfer operations at an affected source, you must not allow any transferred material that contains OHAP to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the actions specified in paragraphs (f)(1) through (5) of this section.

- (1) Minimize spills of material containing HAP.
- (2) Clean up spills of materials containing HAP as expeditiously as practicable.
- (3) Cover all open containers of liquid containing HAP when not in use.
- (4) Minimize the amount of HAP containing material sent to wastewater collection systems.
- (5) Use a submerged fill pipe that discharges no more than 12 inches from the bottom of the cargo tank.

EPA explains it derived these management practice requirements from the requirements for gasoline dispensing facilities (Part 63 subparts BBBBBB and CCCCCC).³⁹ EPA assumes that it is reasonable to apply the management practice requirements for gasoline dispensing to all chemical manufacturing transfer operations. ACC disagrees.

Gasoline is processed at terminal facilities that are much different than chemical manufacturing area sources and many chemical products have significantly different properties than gasoline. Gasoline loading operations are not representative of the range of materials handled in chemical manufacturing transfer operations and these proposed management practices are not GACT for chemical manufacturing operations. Furthermore, even subparts BBBBBB and CCCCCC only apply to transfer operations where significant volumes of gasoline are loaded, not to all facilities that load gasoline or to other loading done at those sites. We strongly urge the Agency to abandon its assumption that transfer operation requirements applicable to gasoline dispensing facilities are an appropriate model for chemical manufacturing sites.

Importantly, the docket does not identify any emissions reduction that would be achieved by these management practices. We, therefore, oppose the imposition of onerous and costly requirements where no environmental benefit is to be gained, especially when these requirements would be imposed on small businesses that are struggling to stay afloat.

We also oppose these management requirements because they are unclear and conflict with other requirements and regulations. Introductory paragraph (f) requires that “you must not allow any transferred material that contains OHAP to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time.” The term “extended periods of time” is unclear and leaves a small business open to arbitrary enforcement. Regulatory authorities could interpret it differently and some could decide that normal operations such as disconnecting loading connections, sampling or gauging are not allowed by this provision. Furthermore, “vapor releases” is not quantified. Low vapor pressure materials can be open to the atmosphere indefinitely and not emit significant amounts of HAP, as indicated by the fact that such materials

³⁹ *Id.*

may be stored in atmospheric tanks. This paragraph would seem to require that these materials now must be enclosed when transferred.

Additionally, we believe the following also to be problematic: Items (1), (2) and (4) are poorly worded extensions of the general duty requirement in §63.6(e)(1), do not apply specifically to transfer operations, and conflict with other proposed requirements. Specifically, items (1), (2) and (4) contain ambiguous requirements to “minimize” and clean up spills as “expeditiously” as possible. These terms are ambiguous and have arbitrarily been interpreted in the past by some regulators to mean “zero” and “immediately”, respectively. These ambiguous terms are not entirely consistent with the proposed wastewater requirements, which would apply to spilled material and containers, and also with the SSM and general duty provisions. They also potentially conflict with applicable OSHA and other safety requirements when dealing with a spill requiring personnel to don personal protective equipment, address potential fire or explosions hazards, etc. before starting the cleanup of the spill. Moreover, it is unclear where these requirements stop. Presumably, they would only apply within the immediate transfer rack area, but that is not clear.

Lastly, items (1) and (2) apply to spills, which generally are due to malfunctions and we request that the Agency delete the word “minimize” or at least clarify in the final rule that “minimize” does not mean “no spills” are ever allowed.

Proposed item (3) requires all open containers of HAP liquid in transfer operations to be covered when not in use. In order to certify compliance with such a requirement, sources have to identify every container that might contain HAP, regardless of size, develop procedures for having them covered, train employees, and have a system to audit and confirm that covers are being used. Requiring covers for all containers is very expensive and burdensome, and EPA has presented no data in the docket to show that this requirement would lead to significant HAP emission reductions to justify the cost and burden.

Proposed item (5) requires the use of a submerged fill pipe. While §63.11499 specifies that other options, listed in Table 2, may be used as well, it is confusing to have the control requirements for transfer operations in three places in the rule. Furthermore, some would interpret §63.11495(f) (5) to override the other sections and to allow only the use of a submerged fill pipe and no other control techniques. We recommend deleting Item §63.11495(f) (5) and relying on Table 2.

B. The proposed compliance options in Table 2 of the rule should be revised.

1. The proposed compliance options should be revised to match the preamble discussion.

On page 58362 of the preamble, the compliance requirements for transfer operations are explained as follows:

To demonstrate compliance with standards for transfer operations, the owner or operator would document that the transfer rack is designed to use top loading with a drop tube that extends to within 12 inches of the bottom of the vessel being loaded and/or that it can fill

tank trucks and railcars by bottom loading. Alternatively, the owner or operator would document that emissions from transfer operations are controlled by vapor balancing back to the storage tank from which the tank truck or railcar is loaded or that emissions are routed through a closed vent system to a control device.

Proposed Table 2 sets the compliance requirements as:

Control total OHAP emissions from all transfer operations using any combination of submerged loading, vapor balancing, and routing displaced vapors through a closed-vent system to a control device.

As indicated in the preamble discussion, bottom filling is commonly used to reduce emissions from transfer operations rather than submerged fill. Therefore, ACC requests bottom filling be added as an alternative in the Table 2 list of control options.

2. Routing to fuel gas or process should be added as a control option.

It is not uncommon for transfer operation vapors to be collected, compressed and recycled for beneficial reuse in a process or as fuel use. Since the proposed rule does not exclude transfer operation vapors routed to fuel gas or to a process from the transfer operations requirements, we believe those approaches should be included in Table 2 as control options.

3. Exceptions to the proposed control requirements are needed for reactive, viscous and sticky materials.

Some ACC members load HAP containing viscous materials that may not be conducive to bottom-fill or submerged fill and such requirements would not be general industry practice. Submerged fill may also be dangerous for loading certain resins and polymers, particularly those that contain styrene.

These heavy, viscous materials are generally handled hot, to allow them to flow. Even at elevated temperatures they have low vapor pressures with very small emission potential during transfer operations. The liquids stick and sometimes harden to the submerged fill pipe and many gallons of this material would have to be collected and disposed of as solid waste. Thus, submerged loading of these materials would result in the generation of a significant amount of hazardous waste (any material not loaded becomes a RCRA hazardous waste).

For safety reasons, it is impossible to keep the last few feet of fill piping heated to prevent this plugging. Because of the plugging, fill pipes must be frequently replaced, incurring significant cost and unnecessary exposure to personnel, neither of which has been considered in the rulemaking record. Nitrogen purge and other methodologies for keeping these fill pipes open have proven unsafe due to potential splashing of hot liquids. Since submerged filling of viscous liquids is unsafe, not general industry practice and would create a RCRA hazardous waste, ACC requests that the Agency provide an exclusion for these materials in the final transfer operations control requirements.

C. The cost basis for management practice requirements is not accurate.

EPA estimates the proposed §63.11495(f) management practice requirements would cost \$620/yr, excluding the costs associated with requirement §63.11495(f) (5).⁴⁰ ACC member companies have evaluated this estimate and believe that the following was not taken into account:

- The preamble assumes 20 hours is a reasonable amount of time to develop a spill control and container cover plan. However, it is more likely that 40 hours will be required to ensure consistency with all applicable laws, regulations and existing spill control plans, release reporting requirements, and to modify existing forms. We also believe that 2 additional hours of annual training or refresher training (valued at contractor rates) would be required to assure the plan is implemented properly.
- One hour per quarter is assumed for inspections. It is unclear what would be required relative to spills, but inspections to address the requirement to cover all containers would involve 2 hours per year of operator training and no less than 8 hours per quarter to identify HAP-containing containers, to cover and uncover them, and to undertake inspections and audits so compliance can be certified.
- It does not appear that EPA assumed any time would be required to meet the proposed requirement to minimize OHAP sent to wastewater systems. While the time required would depend on the process, we estimate 8 hours per month to revise every equipment preparation procedure and to provide the required operator attention to draining water or hydrocarbons.

When considering the above additional factors, these proposed management practices would cost at least \$8000/yr per facility. Since EPA states that the HAP emissions from transfer operations at 91 of 94 facilities are negligible and only 1570 lb of HAP reduction are available from the other three facilities and that will come mostly from the submerged fill requirement which is separately costed, these management practice would not be cost effective. Since EPA applies the management practice requirement to all 94 facilities that have transfer operations, a total cost of at least \$750,000 per year will be incurred by the industry for proposed management practices that yield no stated emission reduction benefit. Even using EPA's unrealistic cost estimate of \$620/yr per facility and applying it to the < 1 ton of emission reduction the Agency estimates for the submerged fill pipe requirement would yield a cost effectiveness of \$58,000/ton, well above the \$3000/ton that EPA has concluded is GACT for area source chemical manufacturing operations.

D. Overlaps with Part 61 subpart BB should be addressed.

Some area sources that load benzene may be subject to Part 61 subpart BB. To minimize unnecessary burdens, the final rule should allow compliance with subpart BB to be considered compliance with this subpart.

⁴⁰ *Id.*

VII. Equipment Leak Issues

- A. Use of an audio, visual, olfactory equipment leak program is GACT, but only for components that contain ≥ 5 wt% HAP.

Docket Document EPA-HQ-OAR-2008-0334-0004, "Control Options and Impacts for Equipment Leaks Chemical Manufacturing Area Source Standards," seems to assume applicability to equipment components containing or contacting materials containing ≥ 5 wt% OHAP. This criterion is typically used in equipment leak rules because HAP emissions from equipment containing less than 5 wt% HAP have negligible HAP emission potential.

ACC believes the criterion is similarly true for area sources. Therefore, the proposed definition for "in OHAP service" at §63.11502 should be clarified to exclude equipment components containing or contacting < 5 wt% HAP thereby excluding such equipment from the AVO inspection program. This will reduce the burden and substantial cost of identifying and inspecting all the equipment components where HAP emissions are negligible and make the rule consistent with the preamble, supporting documents, and general industry practice. If the Agency intends to require control of $< 5\%$ HAP components it must revise its supporting analyses and explain why it is changing its historical regulatory practice in this area source rulemaking.

- B. EPA should clarify that pressure relief valves (PRV) and other equipment routed to control devices, fuel gas or back to a process do not have to be inspected.

Some equipment, such as PRVs and compressor seals are routed either to control devices, fuel gas or back to a process, which limits the possibility of physically inspecting their outlets. The Agency should clarify that inspection is not required in these cases. Similarly, the Agency should clarify that inspection of a PRV equipped with a rupture disk is also excluded since it cannot leak.

- C. EPA should clarify that the required visual inspections may be done from a distance.

Some equipment is either inaccessible or unsafe for close visual inspection. For example, equipment may be off the ground and far from any permanent platform; extreme operating conditions may exist in the area; or piping congestion limits access. ACC requests that the final rule clarify that when necessary, visual inspection may be done from a distance.

- D. EPA should clarify the repair criteria for equipment leaks and specify that delay of repair is allowed.

Proposed §63.11498(b) specifies that the owner/operator "... must repair or replace leaking equipment within 15 calendar days after detection of the leak, or document the reason for any delay of repair." We request the Agency clarify that "repair" means the AVO indication of a leak that was initially identified is removed and that delay of repair is allowed. We recommend the following revision to this section:

You must repair or replace leaking equipment within 15 calendar days after detection of the leak, such that the audio, visible or olfactory indication of a leak is no longer present, or, if necessary, delay the repair. The reason for any delay of repair must be documented.

E. EPA should clarify the recordkeeping requirement.

Proposed §63.11498(c) requires:

(c) You must record the following information in a log book:

- (1) The date and results of each inspection, including the number and location of any liquid or vapor leak.
- (2) The date of repair and the reason for any delay of repair beyond 15 calendar days.

We request this paragraph be rephrased excluding the term "log book" since the use of log books is not common practice at area sources. Also, we request the Agency make clear the inspection record in §63.11498 (1) is for the entire inspection, not a record of the inspection of each individual piece of equipment or the results of each individual inspection.

F. Overlaps with other equipment leak programs should be addressed.

Many area source chemical manufacturing facilities are regulated by state or local LDAR standards. For example, sites in Tennessee are subject to Tennessee regulation 1220-3-18-38. Many other area source chemical manufacturers comply with Title V or synthetic minor operating permit conditions requiring LDAR work practices. As an alternative compliance method, we request that EPA allow facilities regulated under such LDAR programs to use their existing LDAR compliance obligations as demonstration of LDAR compliance under the area source chemical manufacturing standard, so long as the programs are at least as stringent as the final subpart VVVVVV program requirements.

Some area sources are subject to instrument monitoring requirements under Part 60 subpart VV or VVa, and/or Part 61 subparts F/V and J/V and/or Part 264 and 265 subparts BB. Some sources also have opted to comply with a MACT LDAR instrument monitoring program. Compliance with any of those regulations should be deemed compliance with the proposed rule for any components where one of those rules and subpart VVVVVV apply.

VIII. Closed Vent System and Control Device Issues

A. The monitoring requirements for closed vent systems (CVS) should be made consistent with the equipment leak requirements.

Under the proposed rule, closed vent systems used for compliance with the process vent and storage vessel requirements are subject to instrumental monitoring and bypass monitoring in Part 63 subpart SS and Part 60 subpart Kb. These rules require instrumental monitoring to demonstrate the emissions from CVS components are < 500 ppm. Under subpart SS, an initial

instrumental monitoring is required followed by quarterly AVO inspections. Subpart SS also requires a burdensome monitoring program for potential bypasses. Under subpart Kb, quarterly instrumental monitoring is required. EPA concluded for equipment leak components that instrumental monitoring is not GACT and not justified at area sources. We agree with EPA. Thus, the final rule should incorporate CVS monitoring into the equipment leak requirements in §63.11498 (i.e., treat CVS components the same as other components) and override the CVS monitoring requirements in §63.983 of subpart SS and §60.112b(a)(3)(i) of Part 60 subpart Kb for Subpart VVVVVV affected sources.

IX. Wastewater

A. EPA should revise the proposed wastewater and affected source definitions to make them more clear and understandable.

Wastewater is defined in §63.11502 of the proposed rule as:

Wastewater means water that is discarded from an affected source and that contains any HAP listed in Table 9 to Part 63, subpart G. Wastewater means both process wastewater and maintenance wastewater.

1. The wastewater definition should be limited to the partially soluble HAP listed in Table 3 of the proposed rule; include flow and HAP concentration criteria; and clearly state that HAP not expected to exist in the manufacturing process do not need to be included in the wastewater concentration determination.

Defining wastewater in terms of the HAP listed in Table 9 of subpart G has no impact on wastewater streams requiring control under this proposed regulation (those streams that contain HAPs listed in Table 3 of the proposed rule), but does impose an unnecessary and significant burden because sources must identify all wastewater streams and characterize their HAP content. Additionally, streams containing no Table 3 HAP would be made subject to the Table 2 requirement for treatment, at a significant cost. Thus, ACC suggests the reference to Table 9 of subpart G should be deleted and replaced with a reference to Table 3 of the proposed rule.

Some streams such as stream condensates, cooling tower blowdowns, storm water, etc., are not treated prior to release. They occasionally can contain very low HAP levels from their water source, treatment additives or incidental contacts. Under the proposed rule, these streams are "wastewaters" subject to all the evaluation requirements and, under the provisions of Table 2 Item 7, must be sent to treatment. The HON and the MON rules avoid the unnecessary burden of having to characterize very low HAP concentration streams because they contain both a HAP concentration and flow criteria in their wastewater definition. Furthermore, they do not impose a treatment requirement unless the wastewater meets the Group 1 control criteria. Therefore, we believe the final subpart VVVVVV wastewater definition should be modified to include the same concentration and flow criteria as the HON and the MON rules.

Additionally, proposed §63.11500(a)(1) should be revised to make clear that HAP concentrations only need to be determined for wastewaters that are expected to contain OHAP and sources need only look for HAP that are known to be in the process. As currently drafted, all wastewaters at chemical manufacturing area sources would be required to determine each Table 3 HAP concentration in all wastewater, whether or not the Table 3 HAP is present in the process.

2. The "affected source" should be defined to include waste management units not wastewater systems, and the wastewater definition should be revised to include streams that are discarded from the process unit and required control devices.

As described in the Footnote 1 on page 58353 of the preamble:

The affected source is the chemical manufacturing operations at area sources in one of the nine source categories subject to this proposed rule. Chemical manufacturing operations include all process equipment and activities that process, use, produce, or generate any of the HAP listed in Table 1 of this subpart. Chemical manufacturing operations also includes all storage tanks, transfer racks, cooling tower systems, wastewater systems, and equipment associated with the production of chemicals at an area source subject to the proposed rule.

“Wastewater” is defined in proposed §63.11502 as water discarded from the affected source. In light of these two definitions, the only streams that are “wastewater” are streams that are not sent to wastewater systems and the streams leaving the site wastewater system. These clearly are not the streams intended to be regulated by this rule. Furthermore, item 7 in Table 2 would make the wastewater system outlet a “wastewater” and would require sources to send that stream to treatment. ACC does not believe this is EPA’s intent since the cost of retreating already treated streams was not evaluated in any of the supporting documents in the docket. Adding to the confusion, on page 58357 of the preamble, EPA states that wastewater is “discarded from a chemical manufacturing process or control device”, not that it is discarded from the affected source.

To correct this problem we recommend:

- The wastewater definition should be revised to deal with water streams that are discarded from an area source chemical manufacturing process unit and control devices used to comply with this rule, as typically done in the MACT rules applicable to chemical manufacturing operations.
- “Wastewater systems” should be deleted from the affected source and “waste management units” substituted.
- A waste management unit definition should be added to §63.11502 as follows:
Waste management unit means the decanter or other equipment used meet the requirements of Table 2, Item 8 of this subpart and the equipment used to convey and/or store wastewater prior to separating the oil phase.

3. Wastewater streams that contain < 50% water are not wastewater.

The proposed wastewater definition is similar to, and presumably based upon, the definition found in other MACT rules such as the HON and MON. When this definition was developed in the HON, which was pursuant to a settlement agreement, it was clear that wastewater would include only streams that are primarily water, since such streams were considered in developing the rule requirements and are the type of streams for which the control requirements make sense. For instance, using a steam stripper to treat a wastewater stream is feasible only if the stream is primarily water, since such systems do not operate if they contain oil. Turning to this proposed rule, the decanting requirement would make no sense, unless the wastewater is primarily water. We also note that without a water concentration in the wastewater definition the hydrocarbon layer from the required decanting would still be a wastewater, since decanters do not do perfectly separate oil from water.

Consistent with the HON rule, we recommend the Agency specify in the final rule that only streams containing less than 50% water are not considered "wastewater".

4. The wastewater definition should be revised to include the exemptions identified in the preamble and those excluded from the supporting analyses.

On page 58357 of the preamble, EPA states:

Wastewater is defined as water that contains at least one of the 76 OHAP listed in Table 9 of 40 CFR part 63, subpart G, and is discarded from a chemical manufacturing process or control device, except for the following: (1) stormwater from segregated sewers; (2) water from fire-fighting and deluge systems, including testing of such systems; (3) spills; (4) water from safety showers; (5) samples of a size not greater than reasonably necessary for the method of analysis that is used; (6) equipment leaks; (7) wastewater drips from procedures such as disconnecting hoses after cleaning lines; and (8) noncontact cooling water.

However, the exemptions described above are not incorporated in the draft regulatory language. This creates an internal inconsistency by making streams subject to other parts of the regulation also subject to the wastewater requirements. In addition, it does not comport with general industry practice, GACT or the basis for the rule.

We also note that EPA states on page 2 of Docket Document EPA-HQ-OAR-2008-0334-0010, "Control Options and Impacts Analysis for Wastewater Systems Chemical Manufacturing Area Source NESHAP," that its analysis is based on the assumption that all wastewater streams are sent to onsite or offsite treatment. This is not typical for segregated storm water, cooling tower blowdowns, safety shower water, or fire fighting waters. This demonstrates further that the supporting analysis for this rulemaking did not consider these streams and thus they must be excluded from the definition of wastewater.

In summary, ACC suggests that the definition of wastewater be clarified as follows:

“Wastewater”, a stream containing greater than 50% water that is discarded from an area source chemical manufacturing process unit or control device used to comply with this subpart, contains as an annual average ≥ 5 ppmw of the HAP listed in Table 3 to this subpart and has an annual average flowrate of 0.02 liters per minute or greater. Wastewater means both process wastewater and maintenance wastewater.

The following are not wastewaters:

- (1) stormwater from segregated sewers;
- (2) water from fire-fighting and deluge systems, including testing of such systems;
- (3) spills;
- (4) water from safety showers;
- (5) samples of a size not greater than reasonably necessary for the method of analysis that is used;
- (6) equipment leaks;
- (7) wastewater drips from procedures such as disconnecting hoses after cleaning lines; and
- (8) non-contact cooling water.

B. General industry practice and this rulemaking’s record do not support treating maintenance wastewater the same as process wastewater. GACT would require that only process wastewaters be subject to control requirements.

Under MACT rules applicable to chemical manufacturing at major sources, maintenance wastewaters are treated differently from process wastewaters because they have relative little emission potential and are too costly to collect and treat. Under the proposed rule, maintenance wastewaters would be treated the same as process wastewaters making the requirements in this final rule significantly more stringent and more costly than the requirements in the MACT rules. Furthermore, the EPA analysis of GACT in Docket Document (EPA-HQ-OAR-2008-0334-0010) did not consider maintenance wastewaters. Therefore, ACC requests that maintenance wastewaters be excluded from the control and treatment requirements specified for process wastewater streams in §63.501(a) and Table 2.

C. Small wastewater streams should be excluded from the subpart VVVVVV decanting requirement.

Small process wastewater streams pose little environmental concern and are excluded from wastewater control requirements by many rules. For instance, §63.2485(c)(1) of the MON rule excludes from control requirements process wastewater containing less than 10,000 ppmw partially soluble HAP at any flowrate, and less than or equal to 200 lb/yr partially soluble HAP. Proposed subpart VVVVVV Table 2 Items 7 and 8 require decanting for streams $\geq 10,000$ ppm partially soluble HAP and treatment of all wastewater streams. As EPA determined in the MON rule, there would be negligible environment benefit from having to treat or decant wastewater streams with less than or equal to 200 lb/yr of partially soluble HAP. ACC therefore requests that process wastewater streams containing less than or equal to 200 lb/year Subpart VVVVVV Table 3 HAP be excluded from the requirements of Table 2.

D. The proposed requirement that all wastewater should be treated is not supported by the record and should be deleted.

On page 58370 of the proposal the Agency states:

Chemical manufacturing facilities typically discharge wastewater to some form of water treatment because treatment is needed to meet applicable effluent limitations.

This assumption is true for the majority of wastewaters but is not true for small streams that contact only highly insoluble materials and for many of the streams that are normally excluded from the wastewater definition but now would meet EPA's proposed broad definition of wastewaters.

Apparently as a result of this incorrect assumption the Agency proposes in Item 7 of Table 2 to require all wastewater streams to be treated onsite or sent offsite. Since no indication is given as to what would be considered "treatment", owners and operators would be unable to certify compliance. Furthermore, the cost and burden associated with the installation of treatment for all the streams that are currently untreated was not evaluated by the Agency and cannot be considered GACT. The rulemaking record does not support this requirement and it therefore should be excluded.

E. If the oil separation requirement is maintained, it needs to be revised and clarified.

1. Wastewater streams containing partially soluble HAP concentration >10,000 ppmw should not be required to be decanted.

According to proposed §63.11500(a) and Item 8 of Table 2, affected wastewater streams must "use a decanter or other equipment based on the operating principle of gravity separation to separate the water phase from the organic phase". For a wastewater stream with partially soluble HAP concentrations >10,000 ppmw, the preferred treatment may be direct disposal such as sending it off-site for disposal (e.g., incineration). Chemical manufacturing operations that generate wastewater streams with high organic content often send these wastewater streams offsite either for treatment by a RCRA permitted hazardous waste incinerator/ boiler, or to an offsite regulated wastewater treatment facility, such as a POTW, or to an oil recycling operation. This is especially the case for smaller area source operations that have minimal onsite wastewater treatment capabilities. If a site is sending a high organic wastewater stream to this type of offsite treatment, there is no practical reason for the site to be required to use a decanter to separate the wastewater into two phases.

Additionally, there are oil water separators that do not rely on gravity and there may be cases where a stripper or distillation tower is an improved separation approach, especially if idle equipment is available. Thus, we believe the Table 2 Item 8 requirement should be revised to allow for the use of a decanter or equivalent, but not require that the equivalent separation technique rely on gravity, and allow for sending the stream for proper disposal or recycling onsite or offsite.

2. The requirement for disposal of separated oil as hazardous waste should be clarified.

Proposed Table 2, Item 8.a.ii, requires that the separated organic phase be recycled to a process, used as fuel or disposed of as hazardous waste. These options need to be clarified and broadened. First, it is unclear whether these options may be exercised both onsite and offsite. EPA has not addressed the issue in the record and we see no reason why the options should be limited to one or the other so we request that EPA clarify that the recycling, use as a fuel or disposal may occur either onsite or offsite. There are many cases, where onsite recycling or fuel use may not be possible or economically feasible, but the recovered materials could be appropriately sent offsite for that purpose. Second, in some cases these recovered materials are not hazardous waste (e.g., heavy oils). Thus, the requirement that these streams be disposed of as hazardous waste imposes a limitation and a cost that is unjustified. Hence, Table 2 should be modified to allow appropriate disposal, without specifying that the material be treated as a hazardous waste, if the law would not otherwise consider it so.

3. EPA should clarify that each stream does not need to be treated individually.

The language of proposed §63.11500(a) and Table 2 Items 7 and 8 appears to require that each stream be treated separately. This is clearly inefficient, unrealistic and is inconsistent with EPA's cost analysis which assumed only one decanter per site. Sources should be allowed to manage streams individually or in whatever combination is most effective (including combining streams with and without HAP) and the final rule should explicitly state that such systems are allowed.

F. Sources should not be required to estimate HAP content for streams that meet the treatment requirements.

Proposed §63.11500(a)(1) requires sources to determine the concentration of partially soluble HAP in each wastewater stream in the chemical manufacturing operation. According to Table 1 of the ICR Supporting Document, initial analyses will cost \$210,825 for 10 streams at 274 area sources. We note that the estimated 10 streams is an unrealistically low number if maintenance streams are included in the final rule. Nonetheless, as EPA indicates in the backup document many wastewater streams are already treated to at least the required level. Considerable savings could be realized if sources were relieved in the final rule of the requirement to characterize the streams that are either already compliant or which they designate as requiring treatment. Many area sources finding they have one stream needing treatment would opt to treat other streams in order to avoid the costs of determining the HAP concentration. Thus, §63.11500(a)(1) should be revised to exclude streams that a source designates for treatment or already treats as required by Table 2 Item 8.

G. Wastewater streams subject to Part 61 subpart FF and Part 60 subpart YYY should be exempted from the proposed rule.

Part 61 subpart FF applies to wastewater streams containing benzene and some area sources may be subject to the subpart FF requirements. Since subpart FF requirements go far beyond those proposed here, there is no benefit to be gained by also applying subpart VVVVVV requirements to such streams. Therefore, we request that any wastewater stream subject to Part 61 subpart FF, whether or not treatment is required under that subpart, be specifically excluded from the proposed rule wastewater requirements.

When finalized, we believe proposed Part 60 subpart YYY also will impose treatment requirements considerably more stringent than the proposed rule. Thus we request that the proposed rule specify that wastewater streams that become subject to Part 60 subpart YYY, be excluded from subpart VVVVVV requirements after the Part 60 subpart YYY compliance date.

X. Cooling Towers

A. Only recirculating cooling towers serving process heat exchanges containing 5 wt% organic HAP that could leak into the water should be subject to the proposed cooling tower requirements.

On page 58369 of the preamble, EPA describes how it determined GACT for cooling towers. The Agency indicates that management practice requirements for small recirculating cooling towers (< 8000 gpm) are based on three petroleum refinery permits, and the surrogate monitoring requirements for large recirculating cooling towers (> 8000 gpm) are based on requirements in the HON rule. Further, it is indicated that the 8000 gpm criterion is based on the Texas Highly Reactive VOC cooling tower rule.

These permits and rules all include some criteria for identifying which cooling towers must be monitored. Furthermore, on page 2 of Docket Document EPA-HQ-OAR-2008-0334-0003, "Control Options and Impacts for Cooling Tower Control Measures Chemical Manufacturing Area Source Standards," the Agency states that the control analysis is for "cooling towers associated with chemical process units", one recirculating cooling tower was assumed per area source, and the potential emissions from that cooling tower reflects the average composition of HAP at the site. Thus, only recirculating cooling towers with significant HAP emission potential were evaluated by the Agency.

As proposed, *all* cooling towers at a chemical manufacturing facility would have to be monitored, whether or not there is any significant HAP leak potential. However, there are no criteria included to distinguish which cooling towers require monitoring and it is unclear whether "once through" cooling systems are excluded from the subpart VVVVVV requirements. In fact, there is nothing in the proposal that eliminates cooling towers used for air conditioning or other non-process purposes from the rule requirements.

Since the monitoring requirements for large recirculating cooling towers, which presumably have the highest HAP leak potential, are based on the conclusion that the HON requirements represent GACT, the HON recirculating cooling tower applicability criteria should be used in this rule. ACC believes that the EPA GACT analysis presented in the docket is valid only when using the HON criteria and that once through cooling systems are specifically excluded since the analysis assumed significant OHAP leak potential and only considered recirculating cooling towers.

Section 63.104(a)(1)-(6) of subpart F of the HON lists criteria that exclude heat exchange systems from the HON monitoring requirements. We believe these criteria reflect GACT and can serve to identify which cooling towers should be subject to the Subpart VVVVVV requirements. We therefore recommend that a new §63.11495(g)(3), based on §63.104(a)(1)-(6) of subpart F, be added to the proposed rule as follows, and that the introductory (g) paragraph and Table 2 be adjusted accordingly.

(3) Cooling tower systems meeting the following criteria are excluded from all requirements under this subpart.

(i) "Once through" cooling systems.

(ii) Recirculating cooling towers where all heat exchangers served by the cooling tower meet one of the criteria in (g)(3)(i)(A) through (C).

(A) The heat exchanger is operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side, or

(B) There is an intervening cooling fluid, containing less than 5 percent by weight of total hazardous air pollutants listed in table 4 of subpart F of this part, between the process and the cooling water. This intervening fluid serves to isolate the cooling water from the process fluid and the intervening fluid is not sent through a cooling tower or discharged. For purposes of this section, discharge does not include emptying for maintenance purposes, or

(C) The recirculating heat exchange system is used to cool process fluids that contain less than 5 percent by weight of total hazardous air pollutants listed in table 4 of subpart F of this part.

B. EPA should clarify the meaning of Item 5.b of Table 2 "Operate in accordance with §63.104(a)."

Since §63.104(a) contains applicability information rather than operating requirements, it is unclear what Item 5.b of Table 2 means. If the intent is to apply those applicability criteria to these cooling towers, we believe our proposal in the above comment is clearer and that the applicability criteria needs to apply to all cooling towers, not just those with $\geq 8,000$ gpm circulation rates.

C. The management practice requirement for cooling towers with < 8000 gpm circulation rate should be clarified.

Management practices are proposed for cooling towers with < 8000 gpm circulation rate and they require a repair if there are indications of a leak in the cooling tower. However, the inspections used (e.g., visible floating hydrocarbon on the water, hydrocarbon odor, discolored water, and/or chemical addition rate changes) can sometimes be false indicators because the indication can be for reasons other than a leak, or the leak may not be of enough significance to justify a costly repair or a repair that would require a process shutdown. For large cooling

towers, subpart F of the HON defines a leak as 1 ppm OHAP in the return water to the cooling tower and this leak rate is the basis used by the Agency in Docket Document EPA-HQ-OAR-2008-0334-0003 for evaluating cost effectiveness for subpart VVVVVV requirements. As such, ACC requests the management practice requirements provide that area sources may sample the cooling water returning to the tower using the §63.104(a) or (b) procedures to determine if a leak suggested by the management practice inspections exceeds 1 ppm organic HAP. If it does not, sources should be allowed to delay repair until the next process shutdown for maintenance.

D. The monitoring frequency for recirculating cooling towers \geq 8,000 gpm should be clarified.

Proposed §63.11500(b)(1) specifies a monitoring frequency of no less than quarterly. Section 63.104(c)(1)(iii), which is referenced in Table 2, Item 5, specifies monthly monitoring for six months and quarterly thereafter. Supporting Docket Document EPA-HQ-OAR-2008-0334-0003 indicates that the cost, emission reduction and burden estimates were based on quarterly monitoring. Thus, we request that §63.11500(b)(1) be revised to indicate that the monthly monitoring specified in §63.104(c)(1)(iii) does not apply and that only quarterly monitoring is required.

E. EPA should clarify that delay of repair is allowed.

Proposed §63.11495(g)(1) specifies that for cooling towers of $<$ 8000 gpm circulation rate a source “must repair any leak within 45 calendar days after detection of the leak, or document the reason for any delay of repair.” We request that this language be clarified to specifically allow delay of repair as follows:

You must repair any leak within 45 calendar days after detection of the leak or, if necessary, delay repair and document the reason for any delay of repair.

F. The cost estimates for the proposed requirements are significantly underestimated.

We believe the costs for the cooling tower requirements are significantly underestimated for the following reasons:

- The assumption of one cooling tower per site and thus one sample per quarter is unrealistic. Many area sources contain multiple process units and have large enough land area to require several cooling towers. Furthermore, many cooling towers have several return headers and each must be monitored under control options 2 and 3. A more realistic basis for estimating option 1 costs would be to assume two cooling towers per site and for option 2 and 3 would be to assume four samples per site per quarter. Additionally, for many cooling towers, outlet sampling will also be needed to account for organic cooling tower additives, heavy HAP and soluble HAP which build up in the system.
- The costs for monitoring recirculating cooling towers with \geq 8000 gpm circulation rate under options 2 (monitor surrogate quarterly) and 3 (monitor

HAPs quarterly) are underestimated because (a) operator time for sampling would typically be 1 hour not 6 minutes per cooling tower under both options, (b) monitoring under option 2 generally requires sampling of total hydrocarbon or some surrogate specie, costing \$200-400 per sample and (c) option 3 requires multiple samples or GC/MS to do the HAP speciation for a cost of \$300-\$800 per analysis. Under Option 3, the referenced HON procedures require triplicate samples, so analysis costs would be triple those indicated.

- The significant cost associated with check samples and identifying the source of an indicated leak was not included in the estimates for any option.

XI. Other Specific Issues

A. The Notice of Compliance Status containing detailed and prescriptive compliance certification requirements is unnecessary and should be replaced with a general certification as required under other rules.

Proposed §63.11501(b)(1) through (7) requires separate compliance certification statements by responsible officials for each emission type covered by the regulations. ACC is unaware of any other rule that contains such prescriptive and duplicative certification requirements. To decrease the costs and burdens of this rule, ACC suggests that a general certification that a site is complying with the applicable regulations, as required by the MACT rules, is all that is needed.

Furthermore, the wording specified in these paragraphs is incorrect as it does not reflect the rule requirements and therefore, could not be certified in many cases. For example, proposed §63.11501 (b)(5) requires that an area source state “This facility complies with the management practices in § 63.11495 for cooling tower systems” or “This facility complies with the requirements in § 63.11500 for cooling tower systems.” However, as drafted §63.11495 applies to *all* cooling towers, whether or not §63.11500 applies so the word “or” is incorrect. Also, the rule requirements apply to cooling towers in the affected source not to cooling towers at the facility and then only to cooling towers where HAP may be present. So in most cases, these certifications cannot be signed because they address cooling towers not subject to rule requirements.

Another example of the problems with these statements is in §63.11501 (b)(1), where the owner/operator is required to certify they are controlling process vents through closed vent systems to control devices. However, other compliance alternatives may apply. For instance, continuous process vents may be controlled by conveyance to recovery devices, fuel gas or back to a process. Clearly, the required compliance statement does not fit these situations.

B. Proposed §63.11501(b) should be clarified.

ACC requests the Notice of Compliance Status language in proposed §63.11501(b) specifically reference the definition of responsible official in §63.2.

C. To avoid submitting duplicate reports, sources should be able to consolidate the deviation reports with permit reports.

Some area sources already are required to submit periodic reports under the terms of their synthetic minor or Title V operating permits. To minimize the burdens for such sites, we request that language be added to §63.11501(d) requiring subpart VVVVVV reports only for a deviation that will not be reported in a Title V or synthetic minor deviation report.

D. EPA should provide certainty to area sources where Administrator action is required.

Administrator approval is required for several kinds of activities as provided for in the Part 63 General Provisions and the subpart SS monitoring provisions. Specifically, these are requests for:

- An extension of compliance;
- Approval to use alternative monitoring parameters;
- Approval to use alternative continuous monitoring and recordkeeping;
- Approval to use alternative controls; or
- Approval to use engineering assessment to estimate emissions from a batch process vent (assuming that approval is not provided in general as we requested in the batch process vent section of these comments).

With minimal technical staffing at area sources, it is difficult to address critical compliance issues and still be able to meet the compliance dates of the rule. Thus, for the types of requests listed above, we request they be considered approved if no action is taken by the Administrator in a reasonable time period. We recommend 60 days from the date of Agency receipt and request that language to this effect be included in §63.11501 of the proposed rule.

E. General Provision requirements imposed through Table 4 need to be clarified and/or modified to minimize burdens and better reflect the intent of subpart VVVVVV proposal.

Imposing most part 63 general provisions on area sources is burdensome and unnecessary. ACC requests the following specific changes to clarify the requirements in Table 4 to match the intent of this subpart and to reduce the burdens imposed.

- “Negative” records required by §63.1(b)(3) and §63.10(b)(3) impose unnecessary and burdens on sites not subject to subpart VVVVVV requirements and should be indicated as “no” in Table 4.

- To be consistent with other chemical manufacturing rules, notes should be added for §63.6(e)(3)(i), (ii) and (v) through (viii) making clear that SSM plans only address emission points that are controlled to comply with the proposed rule. Also, the notes should state SSM plans do not need to address any of the management practice, equipment leak or cooling tower leak requirements as there is no purpose served by requiring SSM plans for anything that does not impact required controls.

We suggest the notes read as follows – “Emission points not requiring control, management practice requirements, equipment leak requirements (except for control devices) and cooling tower requirements need not be addressed in the SSMP.”

- With such small emission potential, there is no reason for requiring immediate reporting under the SSM provisions or requiring separate reports from the semi-annual deviation report. Therefore, §63.6(e)(3)(iii) and (iv) should be changed to indicate “no” and a note added indicating that any failure to follow the SSM plan during an event where there are excess emissions should be reported in the deviation report.
- Use of the subpart SS performance test and monitoring provisions would be required under the proposed rule since subpart SS is referenced for the control device requirements. The subpart SS provisions are more current and less burdensome than the Part 63 General Provision requirements in §60.7 and §60.8 and there certainly should not be two sets of different requirements specified. Therefore Table 4 should indicate “no” for §63.7 and §60.8 and the performance test provisions in §63.997, and the monitoring provisions in §63.996 of subpart SS should be referenced.