June 29, 2007

EPA Docket Center (6102T)
Attention: Docket ID No. **EPA-HQ-OAR-2006-0859**
1301 Constitution Avenue, NW
Room B-102
Washington, DC 20004
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Re: Comments on the Risk and Technology Review Phase II, Group 2 ANPRM

The American Chemistry Council (ACC) submits the attached comments on the Environmental Protection Agency's (EPA's) "Risk and Technology Review, Phase II, Group 2, Advanced Notice of Proposed Rulemaking (ANPRM)" published in the Federal Register on March 29, 2007 (72 FR 14734). This submission discusses general issues and provides some specific comments on the Polymers and Resins IV, Marine Vessel Loading and Pharmaceutical source categories.

Council members engage in the production of a wide range of chemicals and operate associated facilities, such as marine terminals, that will be directly affected by the Agency's decisions in the Risk and Technology Review, Phase II, Group 2 rulemakings and the associated data analysis, which is the primary focus of this ANPRM. Council members will also be impacted by the policies discussed in this ANPRM as applied to future Clean Air Act §112(f) residual risk and §112(d)(6) technology review rulemakings which impact our members, e.g., Polyether Polyol Production, Offsite Waste and Recovery Operations, the Miscellaneous Organic NESHAP, etc.

We wish to express our appreciation to the EPA for extending the comment period for this ANPRM. While the task of reviewing and updating the ANPRM databases is monumental and sources still have had to prioritize their resources, the additional time provided has allowed for considerably more review than would have been possible in the original 60 day review period.

If you have any questions on our comments, please do not hesitate to contact me at (703) 741-5247.

Sincerely,

Laurie A. Miller

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Comments on

Risk and Technology Review

Phase II, Group 2

Advanced Notice of Proposed Rulemaking

72 FR 14735, March 29, 2007

Docket EPA-HQ-OAR 2006-0859

Submitted by

The American Chemistry Council

June 29, 2007

Executive Summary

- Based on our review of the U.S. Environmental Protection Agency's Advanced Notice of Proposed Rulemaking (ANPRM) and supporting documentation under Phase II of the Risk and Technology (RTR) program, the American Chemistry Council (ACC) has found significant errors in the NEI-based source category data. We therefore believe that EPA's initial risk evaluations represent an unfortunate wasted effort, but one that can be avoided in future RTR programs by putting additional effort into assuring that source category emission information is adequately characterized prior to performing resource intensive risk and technology analyses. In addition, we consider only emissions data provided or validated by affected facilities (in response to the ANPRM, voluntarily, or in response to very focused Clean Air Act (CAA) §114 requests) as having acceptable quality for use in estimating source category risks and making regulatory decisions.

  Where such data are not available, National Emission Inventory (NEI) data for what EPA anticipates to be a representative subset of facilities should be provided by EPA directly to the selected facilities for correction, apportionment to the source category of interest and identification of the emission types.

- NEI-based data can be used, with location correction, 1) to demonstrate that no source in a source category exceeds one in 1 million cancer risk, 2) to show the representativeness of subsets of facilities, and 3) to identify possible high risk facilities for which the Agency might want to obtain source category emission information for risk modeling.

- If EPA proceeds to use and consider data that has not been corrected or validated by the source, or data that EPA has unilaterally ascribed to that source based on EPA assumptions that may or may not be valid, then EPA must significantly discount this data, i.e., give it little or no weight, in the residual risk assessment process and its technology evaluation under CAA §112(d)(6).

- The current approach of a blanket EPA request for review of all data for all possible sources through an ANPRM overwhelms facility resources and is unlikely to result in a representative data set for each source category and subcategory under evaluation or in proper verification of the ANPRM data. Furthermore, this review does not provide emission type information, which is critical to ample margin of safety (AMOS) and other regulatory decision making.

- The proper location of emission sources is critical to establishing the potentially impacted population and potential exposures. The large number of significant location errors in the ANPRM data means this uncorrected data cannot be used for even screening risk assessments without first confirming that the emissions points modeled are <u>within</u> the boundary of the specified facility. Neglecting to verify these locations will result in many

false risk calculations that will mislead regulators and the public and result in a waste of Agency and other resources.

- Marine vessel loading operations co-located with refineries were considered part of the Marine Vessel Loading source category during MACT development, not the Refinery MACT 1 source category; these sources should be handled the same way in the RTR 2 effort.

- The Pharmaceutical MACT data set does not reflect post-MACT emissions and therefore cannot be used as the basis for CAA §§112(f)(2) or (d)(6) analysis or rulemaking.

- For regulatory purposes, EPA should use only the information collected in the Polymers and Resins (P&R) IV CAA §114 data collection or updates of that information in response to the ANPRM.

- ACC believes that if the Hazardous Air Pollutants (HAPs) of concern at a source are not present above threshold levels or if the cancer risks from these HAPs are below one in 1 million and noncancer and target organ specific hazard indices are below 1.0, then any further emissions reduction requirements should not apply to that source. Making this determination as the first step in any residual risk rulemaking minimizes the burdens on the source, the permitting authority and the Agency. This approach is consistent with existing NESHAP rules that include applicability criteria at all decision points in the regulation.

- If the Agency plans to use the ANPRM data set for area source risk assessment or rulemaking it needs to ask area sources to review and correct the data, preferably 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 ANPRM data sets are not of adequate quality for area source rulemaking.

- EPA should work with State agencies to have the State Emission Inventories identify which MACT rule(s) apply to a reported emission point or to an emission source and include this information in future NEI data collection. This information would help all agencies to further understand the residual emissions after implementation of a MACT standard.

ACC Comments on the RTR 2, Phase II, Group 2 ANPRM

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I. Introduction

The American Chemistry Council (Council or ACC) is pleased to submit these comments on EPA's "Risk and Technology Review, Phase II, Group 2, Advanced Notice of Proposed Rulemaking (ANPRM)" published in the Federal Register on March 29, 2007 (72 FR 14734). The ACC represents the leading companies engaged in the business of chemistry[1]. The business of chemistry is a $635 billion enterprise and a key element of the nation's economy. It is the nation's largest exporter, accounting for ten cents out of every dollar in U.S. exports. Chemistry companies invest more in research and development than any other business sector. 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.

Chemistry is also essential to the American standard of living. Over 96% of all manufactured goods are directly touched by chemistry. And more than 6% of the goods purchased by the entire economy (not including the chemical industry) are directly from the chemical industry. The business of chemistry directly creates over 875,000 high paying jobs, and indirectly creates jobs supported by the purchasing activity of the chemical industry and by the subsequent expenditure-induced activity. In total, nearly 5.8 million jobs are generated by the business of chemistry, 4% of the total U.S. workforce. In addition to the jobs it creates, the chemical industry contributes $2.2 billion a year to charitable organizations.

Council members engage in the production of a wide range of chemicals and operate associated facilities, such as marine terminals, that will be directly affected by the Agency's decisions in the Risk and Technology Review, Phase II, Group 2 rulemakings (hereafter referred to as RTR 2) and the associated data analysis, which is the primary focus of this ANPRM. Council members will also be impacted by the policies discussed in this ANPRM as applied to future §112(f) residual risk and §112(d)(6) technology review rulemakings which impact our members, e.g., Polyether Polyol Production, Offsite Waste and Recovery Operations, the Miscellaneous Organic NESHAP, etc.

The Clean Air Act (CAA) establishes a phased process for reducing air toxics emissions from various major stationary industry sectors (or source categories). EPA first issues technology-based regulations, which are designed to establish a strict common level of air toxics control across each source category. These maximum achievable control technology (MACT)

[1] 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

standards are expected to reduce annual hazardous air pollutant (HAP) emissions from all stationary sources by over 1.5 million tons from 1990 levels.[2]

We are proud of our role in this achievement, as well as the many voluntary efforts our industry has underway, such as Responsible Care®, which continue to improve our environmental and community performance. Responsible Care® represents our commitment to respond to public concerns about the safe management of chemicals and has rapidly become the single most important performance improvement initiative within the chemical industry.

[2] National Air Toxics Program, The Integrated Urban Strategy: Report to Congress, EPA-453/R-99-007, July 2000, Page 2-18.

II. RTR Framework and Timeframe

1. The RTR Streamlining Process

ACC supports the Agency's goal of streamlining the §112(f) residual risk and §112(d)(6) review processes and appreciates EPA's resource investment thus far in this new approach.

In particular, we believe the RTR approach helps the Agency streamline its internal data analyses and administrative review processes. While ACC is providing critical comments on the challenges to correcting the ANPRM databases in Section III, we hope our comments will help provide frameworks for how EPA can realize significant quality improvements and additional resource savings both in the current Phase II Group 2 process and future RTR efforts.

For the current RTR 2 evaluations, EPA can use its revised ANPRM databases to prioritize subsequent work leading to proposals and to fill data gaps thereby assuring accurate data are available before any source category-specific analyses are performed as the basis for residual risk and technology review decisions. Specifically, the Agency should prioritize work based on the level of validated, representative data available for each source category resulting from responses to the ANPRM. For some source categories, it is assumed that EPA will have enough validated data to determine that further revisions to the applicable NESHAP rule are not needed, either because all sources in the category have sufficiently low cancer risks and noncancer hazards, or because slightly higher risks and hazards presented by one or more sources are nonetheless determined to be acceptable and to provide an ample margin of safety (AMOS).

Where enough validated data is not available, EPA can prioritize work based on the level of effort needed to fill the data gaps. This would be a relatively straight-forward effort for homogenous source categories, but a more complicated and/or time consuming effort for heterogeneous ones. Prioritizing in this way could allow EPA to carry out a continuous RTR 2 process, where it can issue groups of source category proposals in sequence while preserving the integrity of the data collection and validation process. Specific recommendations for achieving this streamlining in the current RTR 2 effort include the following:

- For all RTR 2 source categories, verify the data in the database using ANPRM comments, prior data collected for residual risk purposes (e.g., the Polymers and Resins(P&R) IV §114 data collection), data collected as part of the original NESHAP rulemaking process, and/or industry source data submitted voluntarily, as appropriate. Where sources have not provided emissions data, maintain the total site emissions data from the NEI database (and TRI data if necessary), but independently identify the correct longitude and latitude for each site where the source did not provide that information directly. Then rerun the screening risk

assessments to determine if any cancer risks exceed one in 1 million. For source categories where this criterion is not exceeded at any site, proceed with no further action proposals.

- For source categories where a site exceeded a one in 1 million cancer risk for their source category-specific emissions or for the whole site, if source category-specific emissions were not available, in the revised screening risk assessment step, work with the appropriate industry trade group to identify a representative subset of sources[3] using the screening analysis information, and then work directly with that subset of sources to obtain accurate location and emissions data specific for the source category. The NEI and TRI total site data can be a starting point for this emission data review with the sources, but are not of adequate quality to be used as a foundation for source category risk assessment and rulemaking. Only the sources can correctly apportion their emissions to a particular source category and identify the emission types.[4] If needed, EPA can reach out informally or use a focused §114 data request to obtain data from sites that do not provide it voluntarily. NEI and TRI total site data, with individually checked longitudes and latitudes, can be used to confirm that the sources analyzed in detail are representative of the source category, unless the category is so heterogeneous that refined assessments of all sources in the category are needed.

  It is during this step that EPA can determine the level of effort that will be needed to collect necessary data for each source category and, in conjunction with source category RTR 2 deadlines, determine the order in which single source categories or groups of source categories could be issued and approximate schedules for proposed rulemaking.

- Using the data that has been validated by the representative sources and supplemented by them with emission type information, the Agency can proceed with refined risk assessments, AMOS analyses and the technology reviews for the RTR 2 source categories.

ACC's comments in Section III highlight that the source category data errors in the RTR 2 data sets are so extreme that most of §112(f)(2) screening residual risk assessments, as well as any§112(d)(6) technology reviews that EPA has performed to date for these source categories will need to be redone. Those initial evaluations represent an unfortunate wasted effort, but one that can be avoided in future RTR efforts by putting additional effort into assuring that source category emission information is adequately characterized prior to performing resource intensive risk and technology analyses. By avoiding an entire cycle of these evaluations,

[3] For source categories with only a few sources it may not be necessary to work with a subset. However, for larger source categories this is the only way to have high quality source category data with a reasonable resource expenditure. The initial screening effort will assure that no potentially high risk site is overlooked.

[4] We believe many sites that find broad, general requests to be overwhelming, would be happy to voluntarily respond to a focused, narrow request directly from EPA for a source category-specific review of their NEI data.

significant resource savings can be gained, offsetting the additional upfront effort many times over.

Our recommendations for future RTR efforts mirror those above for the current effort, but will involve less effort because of reduced recycle.

- Identify the sites in a source category from the previous MACT effort and industry sources and obtain source category-specific emissions data directly from those sources. Where sources do not provide data, use total site emissions data from the NEI database (and TRI data if necessary). Independently identify the correct longitude and latitude for each site where the source did not provide that information directly. Then screen all the sites in the source category to determine if any cancer risks exceed one in 1 million. For any source with a calculated cancer risk exceeding one in 1 million, where whole site data was used, obtain source category-specific emissions data and repeat the screening analysis for that source. Only a source can correctly apportion its emissions to a particular source category and identify the emission types.[5] If no source exceeds one in 1 million, proceed with a no further action proposal.

- For source categories where a source category specific screening analysis for a site exceeds a one in 1 million cancer risk in the screening risk assessment step, work with the appropriate industry trade group to identify a representative subset of sources[6] using the screening analysis information, and then work directly with the subset of sources that have not already provided source category specific data to obtain accurate location and emissions data specific for the source category. The NEI and TRI total site data can be a starting point for this emission data review with the sources, but are not of adequate quality to be used as a foundation for source category risk assessment or specific rulemaking. NEI and TRI total site data, with individually checked longitudes and latitudes, can be used to confirm that the sources analyzed in detail are representative. If needed, EPA can use a focused data request to obtain data from sources that do not provide it voluntarily.

Using the validated data and accurate emission type information for the representative subset of sources, the Agency can proceed with refined risk assessments, AMOS analyses and technology reviews.

[5] We believe many sites that find broad, general requests to be overwhelming, would be happy to voluntarily respond to a focused, narrow request directly from EPA for a source category-specific review of their NEI data.

[6] For source categories with only a few sources it may not be necessary to work with a subset. However, for larger source categories this is the only way to have high quality source category data with a reasonable resource expenditure. The initial screening effort will assure that no potentially high risk site is overlooked.

2. EPA's Clean Air Act Section 112(f) Residual Risk Analysis and Section 112(d)(6) Technology Review Process

The Council is pleased that EPA plans to follow many of the same basic approaches to evaluating human heath risks and environmental impacts from the RTR 2 source categories as those evaluated in RTR Phase 1. These approaches include:

- Evaluating RTR 2 source categories independently, and where at least one source in a category has a cancer risk exceeding one in 1 million, for purposes of §112(f) following the framework presented in EPA's Residual Risk Report to Congress,[7] which was based on the 1989 *National Emission Standards for Hazardous Air Pollutants; Benzene Emissions From Maleic Anhydride Plants, Ethylbenzene/Styrene Plants, Benzene Storage Vessels, Benzene Equipment Leaks, and Coke By-Product Recovery Plants* (FR 54 38044).

  We are concerned, however, that the ANPRM does not reference its approach to assessing human health risks as outlined in the Agency's Air Toxics Risk Assessment (ATRA) Library, Volumes 1 and 2[8], and request that EPA clarify that these evaluations will be carried out in accordance with the approaches laid out in the ATRA Library.

  In addition, as discussed throughout our comments, the Council is also concerned that the Agency will face significant challenges in obtaining appropriately validated, source category-specific emissions data for conducting refined risk assessments and that this challenge has not been adequately addressed in the ANPRM. Examples of these challenges include the following:

  - Use of TRI data, incorrect latitudes and longitudes and incorrect apportioning of NEI emission data to source categories likely will result in large (e.g., orders of magnitude) under- and over- estimation of risks. EPA should make a significant effort to characterize these effects in the uncertainty discussions if data corrected by sources are not used exclusively in the Agency risk evaluations.

  - In general, the default distances to fence lines assumed by the Agency for dispersion modeling (e.g., 30 meters) are unreasonable. For most chemical industry source categories distances of over 100 meters are normal. EPA should gather source category specific information of these distances from sources before performing refined risk modeling. For the P&R IV, Marine Vessel Loading and Pharmaceutical source categories, specifically, we believe a conservative default would be 100 meters. Use of 100 meters would also make the chronic risk assumption consistent with the acute risk analysis for which 100

[7] Residual Risk Report to Congress, March 1999, EPA-453/R-99-001.
[8] See EPA's Technology Transfer Network FERA (Fate, Exposure and Risk Analysis) Site, Risk – Air Toxics Risk Assessment Library at http://www.epa.gov/ttn/fera/risk_atra_main.html.

meters is assumed as the distance to the fence line from the center of the facility.[9]

- Using actual emissions, rather than potential or allowable emissions in the residual risk process. Actual emissions are a reasonable representation of what exposures might be over the 70-year time period used for chronic, inhalation risk assessments.

- Limiting the applicability of additional control requirements to specific sources in a category. EPA states in the ANPRM that "For Group 2 source categories in which all facilities meet these "low risk" criteria, EPA will not propose further regulation under CAA section 112(f)."[10] While EPA does not specifically request comment on this approach, ACC believes that the Agency indeed has the authority and discretion under both §112(f) and §112(d)(6) to apply further emissions reduction requirements only where it is specifically necessary to reduce risks to levels that assure public health is protected with an ample margin of safety.[11]

  For example, in most of the part 63 rules promulgated to date, the Agency has required only a subset of sources or specific emission points to apply controls. We also believe that EPA's Residual Risk Report to Congress and residual risk decisions to date demonstrate that EPA can tailor and focus health based emission reduction requirements to sources and emission points whose HAP emission levels present an unacceptable risk. Such an applicability determination is no different than setting a HAP emissions criterion or some other criterion. The Congressional goal being: "...to avoid regulatory costs which would be without public benefit."[12] Additional details regarding the basis for this approach were provided by ACC in its comments on EPA's proposed Hazardous Organic NESHAP (HON) residual risk amendments[13]. An excerpt from these comments is provided in Appendix A. While the HON rule requirements are based on the facts and data presented by that source category, the underlying rationale described for EPA's ability to limit applicability of additional control requirements to specific sources and emission points in a category is generic in nature.

- Using Total Risk Integrated Modeling system (TRIM) to evaluate potential multipathway and ecological effects. EPA states[14] that it will focus on persistent and bioaccumulative (PB) HAP when analyzing non-inhalation human health risks and will use the TRIM model for evaluating multipathway exposures and

[9] Docket document EPA-HQ-OAR-2006-0859-0102', Methodology for Developing Preliminary Risk Estimates for Source Categories Previously Subjected to Technology-based Standards, April 2007, EPA's Office of Air Quality Planning and Standards, Office of Air and Radiation, page 5.
[10] 72 FR at 14739
[11] 71 FR at 34438
[12] S. Rep. No. 228, 101st Cong., 1st Sess. at 176.
[13] 71 FR 34422
[14] 72 FR 14738

quantitative assessments of environmental risks. ACC believes this is a sound approach to considering these risks.

- Conducting the §112(f) residual risk and §112(d)(6) technology review evaluations in concert, which facilitates the Agency's use of risk results to inform its decisions on further tightening of technology[15] is warranted. Allowing the Agency's §112(d)(6) evaluation to be informed by its findings under §112(f) is sound policy and is how the Agency has proceeded to date. The policy is articulated well in the proposed HON residual risk amendments, in which EPA states:

> "Second, if, under step 2, we determined that additional controls were appropriate for ensuring an ample margin of safety and/or to prevent adverse environmental effects, and the revised standards resulted in remaining lifetime cancer risk for non-threshold pollutants falling below 1-in-1 million and for threshold pollutants falling below a similar threshold of safety and prevented adverse environmental effect, and the facts supporting those analyses (e.g., the environmental and public health risks) remain the same, then it is unlikely that further revision would be needed. As stated above, under these circumstances we would probably not require additional emission reductions for a source category despite the existence of new or cheaper technology or control strategies, *the exception possibly being the development of cost-effective technology that would greatly reduce or essentially eliminate the use or emission of a HAP*. Therefore, in these situations, a robust technology assessment as part of a review under section 112(d)(6) may not be warranted." (71 FR 34437, emphasis added)

While, as discussed above, the Council is pleased that EPA plans to follow the same basic approaches as those used in RTR Phase 1, we are concerned about the issues that follow.

- Potential requirements resulting from the RTR 2 effort should only apply where threshold concentrations and risk levels are exceeded. ACC believes that if the HAPs of concern at a source are not present above threshold concentrations, or if a source demonstrates that risks from these HAPs are equal to or below one in 1 million and a noncancer HI equal to or below 1.0, then any further emissions reduction requirements should not apply to that source. Making this determination as the first step in the applicability determination for the new requirements minimizes the burdens on the source, the permitting authority and the Agency. This approach is consistent with existing NESHAP rules, which include applicability criteria at all decision points in the regulation. We do not believe that where these applicability criteria are expressed as risk levels they are alternative "compliance

[15] As the Agency states in the ANPRM, "Where EPA finds that there have been developments in practices, processes and control technologies for a particular source category, the Agency will consider: [R]elevant factors, such as costs, potential emissions reductions, and health and environmental risk in a determination of what, if any, further controls are necessary." [72 FR 14739

options" or that they should be treated as such. The current NESHAP rules do not treat applicability criteria as "compliance" options and these residual risk criteria should be no different.

- EPA's timeframe and process for conducting residual risk and technology review evaluations as stated in the ANPRM is likely to be optimistic. EPA states in the ANPRM that upon reconciling comments on emissions and other modeling input data, it will conduct a risk assessment for each category and develop and propose §112(f)(2) residual risk and §112(d)(6) technology review standards for the categories as appropriate.[16] ACC urges EPA not to unduly constrict itself; it should retain the flexibility, when warranted, to conduct additional data collection and assessments on HAPs and/or sources of concern. This additional data collection and these additional assessments will be needed if the initial assessments identify possible high risk sources where validated data has not been obtained and where emission types (e.g., process vents, wastewater emissions) may not have been correctly identified for technology assessment purposes. Also, EPA should expect that significant corrections to the ANPRM data sets will be submitted as comments on any RTR 2 proposal for additional controls, since the proposals will provide an incentive for such sources to assure their emission data are correct.

- Use of ten times the annual average hourly HAP emissions to assess acute risks is not likely to be representative of reasonable maximum hourly HAP emissions for the P&R IV, Pharmaceutical or Marine Vessel Loading source categories. If screening analysis suggests acute risk is an issue (e.g., HI>1 for serious effects), EPA should work with the facility and their trade groups to establish better estimates of maximum hourly emissions. In EPA-HQ-OAR-2006-0859-0102[17], EPA briefly describes its use of 10 times the annual average HAP emission rate for evaluating acute risks. The Agency indicates that this factor is based on "engineering judgment and a review of short-term emissions data from a number of source categories by Allen *et al.* (2004)".[18] This report, however, attributes most variability to "emission events" and identifies continuous emissions as likely to vary much less[19]. Additionally, this report is based on emissions of VOCs, which are less controlled than HAPs and thus have somewhat more potential to vary.

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[16] 72 FR 14738

[17] Methodology for Developing Preliminary Risk Estimates for Source Categories Previously Subjected to Technology-based Standards, April 2007, EPA's Office of Air Quality Planning and Standards, Office of Air and Radiation.

[18] Allen, D., C. Murphy, Y. Kimura, W. Vizuete, T. Edgar, H. Jeffries, B.-U. Kim, M. Webster, and M. Symons, 2004. Variable industrial VOC emissions and their impact on ozone formation in the Houston Galveston Area. Final Report: Texas Environmental Research Consortium Project H-13.
http://files.harc.edu/Projects/AirQuality/Projects/H013.2003/H13FinalReport.pdf.

[19] Emission events, typically SS&M occurrences, are not related to normal emissions and thus must be considered separately when assessing acute emission potential. SS&M operations are a separate emission type that is separately regulated by part 63.

Most emission types have little or no variability. For instance, fugitive emissions, wastewater emissions and cooling tower emissions are typically a function of whether or not the process is in operation rather than operating variables. Thus, the maximum hourly and annual average HAP emission rates for these emission types are usually essentially the same. For transfer operations, including marine loading, emissions occur during loading and primarily represent displacement of vapor from the vessel tankage. The rate of displacement is a function of loading rate, but that rate is generally set by the pump capacity or line size and typically would only vary slightly, certainly not by a factor of 10.[20] On the other hand, storage vessel and process vent hourly emission rates can vary based on operating variables. Storage tank emissions will vary considerably between periods of loading and other types of operation and process vent emissions, particularly batch process vent emissions, can be a strong function of operating variables or even ambient variables (e.g., ambient temperature).

Therefore, ACC believes multiplying the total annual average hourly HAP emissions by 10, when only some of the emissions making up those estimates are variable and none relate to SS&M activity, will greatly overestimate maximum hourly HAP emission rates. If screening risk analysis using the factor of 10 indicates an HI of ≥ 1 (for serious effects), the Agency should work with the source(s) and/or appropriate trade group to determine the most appropriate maximum hourly emissions estimate to use for refined risk assessment.

<u>The Agency's risk analysis methodology greatly overestimates actual risks. This should be corrected in future assessments and considered when using the preliminary RTR 2 risk assessments.</u>

EPA describes the risk assessment methodology it has used in the preliminary RTR 2 risk analyses in docket document EPA-HQ-OAR-2006-0859-0102[21]. We would like to call the Agency's attention to some areas where refinements should be made to make future risk estimates more reflective of possible real risks. While this docket document briefly discusses the risk assessment input data, our comments in this paragraph focus on other issues, since we have addressed input information quality at length in the balance of our comments.

- Area sources, such as fugitive emission sources, were treated as point sources in the screening analyses. This results in increased ambient concentration impacts. EPA should work with the appropriate trade group to develop default area source size parameters for each source category and model fugitive emissions as area sources in risk analyses used for regulatory decision making.

[20] This is particularly true for marine vessel loading operations where the high demurrage costs encourage loading to always be done as quickly as possible.

[21] Methodology for Developing Preliminary Risk Estimates for Source Categories Previously Subjected to Technology-based Standards, April 2007, EPA's Office of Air Quality Planning and Standards, Office of Air and Radiation.

- The dispersion model combines exposure impacts of multiple facilities within the same source category for each receptor. There are some situations where separate facilities within the same source category are close together and thus there may be multiple contributors to some of the calculated risks. Such situations should be identified and the relative contribution of each facility should be estimated and reported for individuals calculated to be at risks above one in 1 million or HI > 1.0.

- The exposure analysis did not consider either short-term or long-term behavior of receptors and assumed that the annual average ambient air concentration of each HAP at each census block centroid represents the lifetime exposure for all residents of the census block. It is claimed that "reducing exposure estimates for the most highly-exposed residents by modeling their short-term behavior could add a systematic low bias to these results." However, the opposite is true. The current approach introduces a systematic high bias to the results and this bias should be reduced, when doing assessments for regulatory purposes, by considering behavior patterns. The Agency has expended considerable resources to develop tools to account for behavior and it is unreasonable to not use these tools when doing rulemaking on the basis that they would reduce the estimated exposure. If reduced exposures are a better estimate of the actual exposures, the Agency has a duty to use such estimates.

- It is well understood in the human health risk assessment community that the conservatism built into cancer unit risk estimates (UREs)[22] and noncancer reference concentrations (RfCs) [23], or health benchmark values, as well as theoretical lifetime exposure assumptions that are used to calculated potential risks, tend to significantly overestimate risks, assuming other risk parameters are not significantly underestimated. Where uncertainties in the development of the health benchmarks used in risk analysis occur, EPA applies health-protective factors that will ensure final risk estimates will tend to be overestimated. It is critical that this fact be carefully considered in the uncertainty analysis for an assessment, and discussed in the reporting of risk management decisions, since it is likely they will outweigh all other factors in estimating risks. We strongly believe that the combined effect of all these assumptions resulted in RTR risk estimates that inherently provide for an ample margin of safety. Similarly, we believe that the same is true for estimates of risks from acute, ecological and multipathway exposures. We anticipate providing

[22] "The URE represents an upper bound of the increased risk of developing cancer for an individual exposed continuously for a lifetime (e.g., 70 years) to a specific concentration (e.g., 1 µg/m3) of that HAP in the air. For ingestion exposure, the toxicity benchmark, the oral cancer slope factor (CSFo), is used with the appropriate exposure factors (e.g., lifetime, exposure duration, body weight, and consumption rate) and media concentrations to arrive at the individual risk from ingestion." (See EC/R Inc., Synthetic Organic Chemical Manufacturing Industry – Residual Risk Assessment (2005) (prepared for EPA), at 3-4.)

[23] "The RfC and RfD represent estimates (with uncertainty spanning perhaps an order of magnitude) of daily exposure of the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. Values similar to EPA's RfC and RfD (e.g., minimum risk levels (MRL's) derived by the U.S. Agency for Toxic Substances and Disease Registry (ATSDR)) are used when RfC or RfD values are unavailable." (EC/R Inc., supra note 11).

more specific comments, if refined assessments using corrected input data identify emissions that appear to pose significant risks.

- Cancer risk is reported in the docket document to have been estimated as the upper bound probability assuming a 70 year exposure at the calculated ambient exposure. Actual risks will certainly be lower. To better characterize the potential risks and to provide an indication of the overestimation resulting from using the upper bound estimate, we recommend the Agency calculate and report the "central estimate" as discussed in the proposed Office of Management and Budget's Proposed Risk Assessment Bulletin and Chapter 13 of the Air Toxics Risk Assessment Reference Library, Technical Resource Manual, EPA-453-K-04-001A, April 2004.

- It is also reported in the docket document that the risk estimates for carcinogenic HAPs that act by a mutagenic mode-of-action were inflated by a factor of 1.6 to 10 by applying EPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens[24]. Since some dose response value derivations have already considered such effects, we recommend EPA identify where they have adjusted values in the uncertainty analysis and, where such a HAP is a risk driver, the Agency demonstrate that this adjustment is needed for that particular HAP in light of the derivation of the dose response value used and provide a clear statement of the adjustment applied for consideration in making AMOS decisions.

[24] US EPA, 2005, Supplemental guidance for assessing early-life exposure to carcinogens, EPA/630/R-03003F, http://www.epa.gov/ttn/atw/childrens_supplement_final.pdf.

III. General Comments on RTR 2 Source Category Data

ACC members report that they are uncovering many problems with facility information and data entries in the ANPRM databases. Many are submitting corrections for those items they believe are critical to properly characterizing the indicated source category at their site. Our comments in this section address the more generic issues found in reviewing the ANPRM data sets and the associated source category summaries.

1. General Data Recommendations

Because of the difficulty of accurately assigning and apportioning emissions data to individual source categories and identifying emission types, only ANPRM data set entries that have been validated by the source should be used for §112 source category evaluations and rulemaking.

The ANPRM data sets may be used to identify a representative subset of sources that can be evaluated after their ANPRM data entries have been assigned, apportioned and corrected by the source and, with the validation or correction of all location information, the ANPRM data sets may be used for demonstrating the representativeness of the subset and to confirm high risk sources have not been overlooked.

Apportioning source category and emission point data is problematic. The ANPRM data sets, even with obvious errors such as wrong latitudes and longitudes corrected, are still not suitable for evaluating source categories for purposes of §112 rulemaking, because they do not accurately provide source category specific emission data or identify the emission points in ways that are consistent with how these points are regulated (e.g., process vents are not separately identified from other emission types, nor are batch and continuous process vents distinguished).

The ANPRM data sets are primarily derived from the NEI, which contains whole facility emissions data that have been voluntarily provided by states and to some extent TRI data, neither of which was collected for purposes of source category rulemaking under the CAA. Rather, these data sources provide aggregate emissions by emission point or, in the case of TRI, by site, without regard to the regulatory status of the collective emissions released at that point. As demonstrated in the responses to the ANPRM, review of the data sets indicates that, in most cases, the Agency has been unable to segregate and identify the RTR 2 source category emissions.

- SIC and SCC codes are not the solution. While in theory the SIC and SCC codes in the NEI database can be used to infer MACT applicability for an emission and perhaps in some cases emission point, the current review shows that this approach does not work.

- There is no provision in the NEI system for separating combined emissions by source category. The NEI database allows only one source category assignment per emission point.

- EPA itself acknowledges the difficulty of the apportionment issue, albeit understating it, in the ANPRM where it states:

  > "For large facilities with multiple processes that represent multiple MACT source categories, it was not always straightforward to separate the processes by source category."[25]

  Our members indicate these problems are endemic in the ANPRM data sets and are not limited to large facilities.

Therefore, data that have not been corrected or validated by the source, including emissions EPA unilaterally ascribes to a source, should not be used in EPA's §112(f) risk analyses or in the Agency's §112(d)(6) evaluation.

Details of our Data Recommendations

- Use the ANPRM data sets to screen for low risk source categories. With correction of obvious errors and validation or correction of all latitude and longitude data, the whole site NEI data can be used to screen for low risk source categories since if an entire site is low risk, all source categories at that site would also be low risk.

- Use the ANPRM data sets to screen for high risk sources. With correction of obvious errors and validation or correction of all latitude and longitude data, the ANPRM data can also be used to screen for apparent high risk sources among sources that have not provided corrected data in response to the ANPRM. Once such sources are identified, EPA can place high priority on obtaining updated data for them, as discussed in the following paragraph.

- Focus data collection efforts. For source categories in which higher risk sources are present and detailed §112 analysis is required, EPA should only use data collected directly from the affected sources, as was done for most MACT standard development and most RTR 1 analyses, and are already available for many RTR 2 source categories (e.g., P&R IV). Direct requests from EPA to a source (or through an appropriate trade association, e.g., ACC) are critical to assuring company resources are responsive at the pre-proposal stage and the Agency should use this approach to assure any apparent high risk source provides corrections.

[25] 72 FR 14740

- Only HAP emissions data for sources that have confirmed they are in the source category, that have been correctly apportioned to the source category, and for which the emission points have been identified by the source should be used for risk assessments that will be published and/or used to determine further regulatory requirements.

  Based on the reviews performed by Council members thus far, it appears that most ANPRM data records need at least some correction. Thus, the lack of corrections of a source's data in response to the ANPRM very likely means lack of review, not that the data are valid. Our emission data concerns are discussed in the balance of this section of our comments.

- If EPA does not receive updated data for all sources in a category, EPA will need to determine a subset of sources that would be representative of the category. This may be the subset of sources that responded to the ANPRM or those sources plus additional sources identified by EPA (e.g., those appearing to be higher risk). EPA will then need to demonstrate the representativeness of the subset and gather source category-specific data from those sources which did not provide it. Working with what EPA believes to be a representative subset of sources provides efficiency and accuracy with no potential loss of public health protection.

  The blanket request in the ANPRM for review of the ANPRM data sets under a tight deadline imposes a tremendous burden on sources. Because the ANPRM lacks a significant incentive for a source to review and correct its data (e.g., identification of a site as high risk or receipt of an individual EPA request) [26] and does not distinguish critical data from less critical data, many sources may not review and correct their data until the proposed rule affecting them is published for comment.

- Since emission point apportionment is not an issue when addressing whole sites, the ANPRM data sets can be a valuable tool for checking the representativeness of subsets of sources. To address both the potential to overlook a source(s) with significant risk and the representativeness of a subset of data, EPA can follow the same process as it followed in the HON residual risk analysis[27], where it used the total site data from the NEI for all sources identified as being in the category. This allowed confirmation that there were no unusually high risk sites that should be evaluated further and demonstrated the representativeness of the subset of sources studied.

[26] For instance, one ACC member site reports they will correct the longitude and latitude for the two combined emission points (point and fugitive) identified in a data set for them, but that they cannot justify the resources to enter the individual emission points (over 70) that comprise the combination until they determine if that would make a difference (likely at the proposal stage).
[27] 71 FR 34422

- Once EPA determines the level of effort that will be needed to collect necessary data for each source category, it can determine, considering deadlines, the order in which proposals can be issued and approximate schedules.

- To lessen the data validation effort in future RTR rulemakings, EPA should work with State agencies to have the State Emission Inventories identify which MACT rule(s) apply to a reported emission point or to an emission source and to identify the emission point type. This information would help all agencies to further understand the residual emissions after implementation of a MACT standard.

2. Overall Data Quality Issues

Without direct, additional input from sources, the RTR 2 ANPRM data sets do not allow the Agency to independently assess each source category.

EPA states in the ANPRM:

> While the standard review and development process will be streamlined, each source category will be assessed independently and decisions on the level of any standard will be made individually for each source category. (72 FR 14736, emphasis added)

Relative to §112(d)(6) decision making, EPA also states:

> As we undertake these rulemaking proposals, we will also consider developments in pollution control in each source category and ... (72 FR 14739, emphasis added)

EPA properly represents the requirements of the CAA in specifying that §112 analyses must be done on a source category basis. However, we believe that the RTR 2 ANPRM data sets do not provide adequate information to reliably identify the emissions associated with a particular MACT source category or to evaluate the residual risk attributable to specific MACT sources or to source types at those sources. Thus, the only way the Agency can evaluate individual source categories, as required by the CAA using the ANPRM data sets, is by using only the data that has been reviewed and supplemented by the sources. Since 100 percent review of the data (except for those source categories with only a few sources) is unrealistic, we believe the only way the Agency can meet CAA requirements is by limiting the analysis to only the subset of sources where data have been validated.

Emission point identification in the ANPRM data sets is inadequate and therefore does not allow for reasonable technology assessments.

For most RTR 2 source categories, EPA will need to make AMOS decisions and additional controls may need to be evaluated. In order to do so, EPA must know which emission points in a source category may be presenting residual risk. However, the ANPRM database does not

have a data field for emission point type, making it virtually impossible to accurately relate risks to emission type and thus to evaluate the potential impacts of additional controls. Nor is associated information, such as whether an emission point is Group 1 or 2, or excluded from control by some exception, present in the ANPRM data. Even where EPA has generated screening data that relates risk to one or more emission points, because of the high probability of error in the ANPRM emission point data, there is high probability of error in any decisions based on these data.

Within the data sets, a few emission types are sometimes clearly identified (e.g., storage tanks, equipment leaks and combustion sources)[28] by their SCC codes, but in general there is no mechanism in the data sets to separately distinguish emission types as they are regulated in the applicable MACT standard. For example, part 63 subpart JJJ, the P&R IV MACT, addresses emissions from storage vessels, continuous process vents, batch process vents, heat exchange systems, process contact cooling towers, process wastewater, maintenance wastewater, and equipment leaks. For many P&R IV data set entries, there is no indication of which of these emission types to attribute an emission point entry. In some cases, this data could be obtained from state, local or tribal authorities, but this would be a time consuming process. In addition, these authorities do not have the information that indicates where emission types are combined before being emitted. Thus, the site is the best source of the required emission type information.

Even where emission types appear clear in the data sets, critical data for technology evaluation is missing. For instance, for storage vessels, perhaps the best identified emission type in the data sets, there is no data on vessel size or HAP vapor pressure (the key applicability criteria in the MACT rules for tanks) or whether controls are required by the MACT rule.[29] Thus, the data are inadequate for evaluating the impact of potential MACT rule revisions.

TRI data should not be the basis for published risk assessments or regulatory decisions.

For every TRI chemical, the TRI inventory provides for each site a single emission quantity from point sources and fugitive sources with no discrimination. Thus TRI emissions cannot be apportioned to specific emission points or types, or MACT source categories. For sites with more than one MACT source category,[30] TRI emission information cannot be separated by source category. Furthermore, the TRI database does not provide some of the information

[28] Even for these emission points there are significant identification issues. For instance, some "storage tanks" in an affected source are "wastewater emission points" rather than "storage tanks" and some combustion devices are "control devices" and thus can be part of a non-combustion affected source as well as a combustion affected source. The issues with SCC codes are discussed in more detail in Section III.3 of these comments.

[29] The data sets generally do indicate if a storage tank is controlled and by what means, but do not indicate whether that control is required and, if so, whether the requirement comes from a MACT rule, a RACT rule, an NSPS rule , a state rule or a permit condition.

[30] Virtually all sites have multiple MACTs because, in addition to process related MACT standards, there are separate MACTs for common auxiliary operations such as steam generation (boiler and process heater MACT), power generation (turbine MACT), marine operations, auxiliary liquid distribution operations (OLD MACT), and often surface coating MACTs of various types.

needed for modeling. As EPA states on page 9 of the Risk and Technology Review (RTR) Assessment Plan, DRAFT for EPA Science Advisory Board Review – November 20, 2006:

> TRI emissions values are not subject to the same QA procedures that NEI estimates are, and the TRI database lacks some data fields and levels of specificity that are required for accurate dispersion modeling.

As EPA rightly concedes, TRI data cannot be used for accurate dispersion modeling and thus we do not see how they can be used for risk assessment that will be the basis for future regulation. Indeed, EPA has broadly recognized the limitations of TRI data. (See http://www.epa.gov/tri/tridata/tri05/brochure/brochure.htm). We therefore encourage the Agency to avoid using TRI data for source category risk characterization.

In order to use the most accurate data possible, EPA should give priority consideration to comments from industry on their NEI-based ANPRM data set entries, as industry is the original source of this data.

EPA's process for evaluating comments on the ANPRM is described therein and in the Risk and Technology Review (RTR) Assessment Plan, DRAFT for EPA Science Advisory Board Review – November 20, 2006: The latter description is:

> "2.1.3 Updates to the 2002 NEI to support the NPRM
>
> Once the comment period for the ANPRM closes, EPA will evaluate the public comments and data corrections received, reconcile differences between public comments and internal review comments generated during the engineering review, obtain additional required supporting information (e.g., verification of proposed changes), as necessary, and update the data sets accordingly.
>
> EPA will review all emission inventory comments in response to the RTR II ANPRM. Comments requesting explicit changes to the emissions inventory will be evaluated to determine if the requested changes should be incorporated into the NEI. Some of the factors that will be considered in the evaluation of explicit requests for emission inventory changes include:
>
> 1) The source of the underlying NEI data on which comments are received (e.g., industry, State/local/tribal air agencies, EPA engineers, reporting to EPA's Toxic Release Inventory (TRI), etc.);
>
> 2) The quality of supporting documentation supplied with the comment (e.g., monitoring method, mass balance calculations, etc.);
>
> 3) The type of data the comment addresses (e.g. emission quantities, geographic coordinates, stack parameters, MACT code assignments, etc.); and

4) The magnitude of requested emission quantity revisions.

All requested changes must pass the NEI quality assurance (QA) process [*4*]. This process includes a variety of QA activities to identify point source records with referential integrity problems, duplicate records, and records with missing or out-of-range parameters which are needed for air quality and exposure modeling. We first resolve records with referential integrity problems and duplicates. Then after identifying parameters and data fields with missing or out-of-range values, we augment the data using the methodology in the QA document [*4*]. We summarize the errors found and provide reports back to the data providers on the QA findings.

Revisions received from the same source that supplied the current NEI data will be incorporated as long as they pass the NEI quality assurance process. For example, if a State agency wishes to change an emissions value that they provided to the NEI, that revision will be incorporated. For comments received from a different source than the source of the data currently in the NEI, the factors listed above will be evaluated to determine if the data will be incorporated into the NEI.

EPA will review the supporting documentation for suggested emission changes, consult with sources of the comment, and revisit the original NEI data to determine if the comment will be incorporated into the NEI. We anticipate that requests for changing data other than emission values (e.g., geographic coordinates, stack parameters, MACT code assignments) will be incorporated regardless of the data source as long as there is adequate supporting documentation and the data pass the NEI quality assurance process."

This process is seriously flawed, because it gives priority to secondary data sources (state/local/tribal air agencies) over the primary and originating source of the emissions data. Furthermore, emission inventories and permits are not linked in most jurisdictions, so the air agencies have no readily available information that links emission inventory items with MACT applicability, source categories or even emission types. If they did, this information would already be correctly included in the NEI. Additionally, air agencies have already provided their data to EPA and are unlikely to now review that 2002 data for a rulemaking that does not impact them and which they submitted to EPA voluntarily.[31]

[31] While submission of criteria pollutant information is required by regulation, there is no requirement for submission of HAP information and, in fact, some jurisdictions did not provide HAP data to EPA for use in the NEI (e.g. Alaska, Georgia).

EPA should obtain source review of any dioxin/furan estimates before adding those HAPs to the RTR 2 analyses. Furthermore, EPA should obtain source assistance in apportioning such emissions to the correct source categories.

On page 14740 of the ANPRM, EPA states:

> Due to the high uncertainty of the dioxin/furan emissions information submitted during the inventory development process, dioxin/furan emissions were not included in the 2002 NEI, and no emissions of these compounds are included in the ANPRM data sets. As we update the ANPRMM data set, we will include dioxin/furan emissions, based on the best information available to EPA at that time.

The Agency's plan to add dioxins and furans to the review is also discussed in the Risk and Technology Review (RTR) Assessment Plan, DRAFT for EPA Science Advisory Board Review – November 20, 2006 as follows:

> "Emissions of chlorinated dioxins and furans were not included in the 2002 NEI due to the high uncertainty of the emissions information for those compounds submitted during the inventory development process. Thus, these emissions were not among the initial NEI data for the ANPRM. Instead, we used EPA's 2003 dioxin reassessment [2] to initially identify source categories emitting potentially significant levels of dioxins/furan, and we will use EPA's soon-to-be-released dioxin reassessment to complete this task."

In order to determine the validity of the Agency emission estimates for these HAPs and to apportion them to the proper source categories, the Agency should seek input from the impacted sites. Just as with NEI data, in most cases existing information will not be adequate or available to EPA to apportion these emissions to the correct source category.

Methyl Ethyl Ketone (MEK) was removed from the HAP list on December 19, 2005 (70 FR 75047) and therefore should be deleted from all of the ANPR data sets.

3. Emissions Data and MACT Assignments

EPA's approach to assigning individual emission points to source categories based on HAP content, SCC codes or SIC codes is marginally accurate at best, and often will result in inaccurate estimates of risk and incorrect analyses of technology alternatives.

EPA uses facility lists, SIC codes, and SCC codes to try to identify sites within the NEI database with operations in each source category. The data for each facility believed to include a particular source category is collected in the ANPRM data set for that source category. Where identified facilities are not present in the NEI database, TRI emissions are incorporated in the ANPRM data set. Individual emission data for each facility are supplemented using TRI data and data that have been developed or collected by EPA for that facility.

Then, according to the descriptions in the source category summary documents, individual NEI emission points at each facility are assigned to source categories based on the SCC code, SIC code and the HAPs emitted. This approach results in overstating the emissions associated with a particular source category for three major reasons. First, not all emission points that are associated with the production of a particular product are part of the source category for that product. Second, emissions of a particular HAP at a site often come from multiple source categories. Third, many emission points contain emissions from multiple source categories, so extraneous HAPs and emissions will be assigned to whatever source category the emission point is assigned to.

Specific examples of these problems include:

- The P&R IV source category covers processes that produce particular types of thermoplastics. The Pharmaceutical source category covers processes that produce pharmaceutical products and the Marine Vessel Loading source category covers marine vessel loading operations. However, the P&R IV source category only includes processes where the identified products are the primary product (≥50% of the annual production), thus not all facilities where thermoplastics are produced are in the P&R IV source category.

- Under the Pharmaceutical MACT, the source category only covers the actual production of pharmaceutical products. Thus, when a process is making non-pharmaceutical products that process and its emission points are not part of the Pharmaceutical source category and will be part of another source category if HAP is present. Yet the ANPRM data sets do not distinguish emission points by product.

- Under the Marine Vessel Loading MACT, as discussed in the major source/area source section below, only existing marine sources that emit over 10 tons/year of one HAP or 25 tons/year of all HAPs <u>from the marine loading operation</u> are part of that source category.

In general, the EPA approach to assigning sites does not screen out sources that are not part of the source category because they do not meet source category applicability criteria such as these. Thus, the current EPA approach often assigns more sources to a source category data set than are actually in the category.

Once EPA concludes that a particular site is part of a source category, it assigns individual emission points based on their SCC, SIC codes and their HAP emissions. Specific problems with using SCC and SIC codes are discussed in the following two sections below. Using HAP emissions is particularly problematic. At sites with multiple processes, the same HAPs can be emitted from two or more processes and those processes often are in different source categories. For instance, it is common for one process to prepare monomer for a second, polymerization process. The first process would typically be part of the HON or the Miscellaneous Organic NESHAP (MON) source categories, while the downstream process

could be a P&R process, among others. All types of combinations are possible and given the narrow applicability of many source categories it is common for a site having multiple processes to also be part of multiple source categories.

In addition to multiple processes in different source categories emitting the same HAP at a source, some emission points at a source will be excluded from a process in the source category. This occurs because the emission point does not meet source category applicability criteria or it is specifically excluded. Examples of this situation include emission points associated with emission types not included in the affected source (e.g., transfer operations for the P&R IV categories), ancillary operations, certain associated storage and transfer operations (potentially subject to the Organic Liquid Distribution NESHAP (OLD) instead), waste operations, wastewater operations (unless handling Group 1 wastewater), etc. Thus, for instance, a HAP storage tank may be subject to a process MACT (e.g., a P&R rule) or to the OLD MACT depending on tank specifications, tank use and the details of each rule's applicability and promulgation date.[32]

Also, in many cases, individual emission points as listed in the ANPRM data sets actually emit HAPs that have been collected from multiple emission sources and often multiple processes. The Agency's assignment approach assumes an emission point only emits HAPs from one process and from one emission type, and therefore from one source category. Thus, EPA assigns all emissions and HAPs from an emission point to one source category regardless of the other source category processes that enter that point. This is one of the reasons EPA has identified so many unusual HAPs being emitted by individual facilities in a source category.

Many source category designations are made or confirmed by EPA staff knowledgeable about the source category. However, in developing source category rules EPA staff generally do not need to know MACT applicability on a specific emission point basis nor to be aware of site specific emission point identifications. In developing the original MACT rules, considerable knowledge of the source categories was developed, but that knowledge was based on model plants and/or emissions data that were not identified in ways that can be transferred to specific emission points at sources. For MACT rulemaking, it was not necessary to know the actual ID of each emission point, but only its characteristics and its emission type (e.g. storage tank, process vent, etc.)[33]. Since the ANPRM databases do not contain the characteristic information needed to evaluate MACT applicability, this knowledge does not help in assigning emissions to source categories. Furthermore, MACT rules are developed for the emissions as they exit the regulated process, and those descriptions are often much different from the names of the emission points from which they are released. For instance, a continuous process vent might be identified as from Tower 1 at X process for MACT development purposes, but be identified in the emission inventory as Emission point 12, which could be an individual vent or a vent that emits emissions collected from many emission sources.

[32] Most MACT rules exclude equipment that is already covered by another MACT. Thus a tank that might be a P&R MACT feed tank might be excluded because it was already regulated as a HON product tank, simply because that rule came first.
[33] For instance, to determine if a tank is subject to a MACT rule, you must know how the tank is used (e.g., feed, surge control, wastewater storage), the design capacity, and the HAP vapor pressure of the stored material.

The full document is available in the OIRA Docket Library