From: Elise Salahub
To: Benjamin Hartung
Subject: AMR VI comments
Date: Thursday, September 8, 2022 10:18:52 PM

Philadelphia Department of Health Members
You are in a position of great power to ensure residents of Philadelphia, surrounding communities and visitors are breathing the safest air possible.
I am concerned because Air Management Regulation VI is not written to protect the public. My three children and their spouses reside and work in Philadelphia City, as do very close friends. My brother and his family live in Springfield, PA. They have made personal and professional commitments to Philadelphia and the surrounding areas. I, and they, expect the Philadelphia Department of Health would be committed to providing a healthy environment for them to live in and raise their children. As members of the Philadelphia Health Department, your highest priority and focus must be that of people. You are not designees of industry prosperity nor should you be beholden to industry demands.
You must be aware of our Pennsylvania Environmental Rights Amendment, Article 1, Section 27, which unequivocally states:
The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.
Therefore:
1. Retract the 5 industry reporting exemptions for toxic emissions. It will allow over 97% of these facilities to non-report toxic air emissions.
2. As guardians of the health of Philadelphia residents, the Philadelphia Department of Health must necessarily and solely perform health risk assessments of industry pollutants.
3. Reinstate the paragraph which prohibited a facility from emitting pollutants above toxic thresholds for humans and the environment.
4. No health risk assessment exemptions for major large sized gas burning facilities.
5. Reliable science must be utilized to determine toxic thresholds for humans, animal species and the environment.
6. Aggregate and cumulative health impacts of toxic emissions from a facility combined with background ambient pollution must be assessed and used as determinants for granting permits.
7. Do not allow a dangerously high benchmark for "undue cancer risk" which is more than twice the current risks in Philadelphia today.
It is incumbent upon you to serve the health of people and not jeopardize or harm their health or the health of the environment to accommodate industry pollution.
Thank you for your service to your fellow Philadelphians and for giving highest priority to all non-industry comments.
Sincerely
Elise Kucirka Salahub
[redacted]

From: Elise Salahub
To: Benjamin Hartung
Subject: AMR VI comments- addedum comments
Date: Friday, September 9, 2022 11:17:19 AM
Attachments: image001.png

Ben, I would like to add this comment as an addendum:
My son attended college in Philadelphia and has lived in the city since graduating to pursue his professional career. He is now married and they are expecting their first child. We were discussing the recent virtual Air Pollution Control Board hearing I attended and the proposed harms that are in AMR VI. He admitted that he believes he is shortening his life span by living in Philadelphia. Air pollution is mostly invisible and is not contained by arbitrary geopolitical boundaries. Now that climate change and global warming are our reality, atmospheric conditions are drastically changing and will exacerbate human, animal, and environmental exposure to toxic air pollutants.
The Board needs to take active responsibility and accountability for their air quality regulations because toxins have cumulative and aggregate consequences. We need a board that acts with precautionary discernment. Your decisions will have a direct impact on people and the environs of Philadelphia.
Thank you
Elise Kucirka Salahub
[redacted]

On Fri, Sep 9, 2022 at 9:43 AM Benjamin Hartung <Benjamin.Hartung@phila.gov> wrote:

> Elise Salahub,
>
> Thank you very much for these comments. They will be provided to the Air Pollution Control Board for review.
>
> Sincerely,
>
> **Ben Hartung**
>
> Public Policy Advisor | Division of Chronic Disease and Injury Prevention
>
> Philadelphia Department of Public Health
>
> 1101 Market St, 9th Floor
>
> **He/Him/His**

From: Elise Salahub [redacted]
Sent: Thursday, September 8, 2022 10:19 PM
To: Benjamin Hartung <Benjamin.Hartung@phila.gov>
Subject: AMR VI comments

Philadelphia Department of Health Members

You are in a position of great power to ensure residents of Philadelphia, surrounding communities and visitors are breathing the safest air possible.

I am concerned because Air Management Regulation VI is not written to protect the public.

My three children and their spouses reside and work in Philadelphia City, as do very close friends. My brother and his family live in Springfield, PA. They have made personal and professional commitments to Philadelphia and the surrounding areas. I, and they, expect the Philadelphia Department of Health would be committed to providing a healthy environment for them to live in and raise their children. As members of the Philadelphia Health Department, your highest priority and focus must be that of people. You are not designees of industry prosperity nor should you be beholden to industry demands.

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As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

Therefore:

1. Retract the 5 industry reporting exemptions for toxic emissions. It will allow over 97% of these facilities to non-report toxic air emissions.

2. As guardians of the health of Philadelphia residents, the Philadelphia Department of Health must necessarily and solely perform health risk assessments of industry pollutants.

3. Reinstate the paragraph which prohibited a facility from emitting pollutants above toxic thresholds for humans and the environment.

4. No health risk assessment exemptions for major large sized gas burning facilities.

5. Reliable science must be utilized to determine toxic thresholds for humans, animal species and the environment.

6. Aggregate and cumulative health impacts of toxic emissions from a facility combined with background ambient pollution must be assessed and used as determinants for granting permits.

7. Do not allow a dangerously high benchmark for "undue cancer risk" which is more than twice the current risks in Philadelphia today.

It is incumbent upon you to serve the health of people and not jeopardize or harm their health or the health of the environment to accommodate industry pollution.

Thank you for your service to your fellow Philadelphians and for giving highest priority to all non-industry comments.

Sincerely

Elise Kucirka Salahub

[redacted]

From: FLORENCE BUCKLEY
To: Benjamin Hartung
Subject: Changes to AMS Legislation
Date: Thursday, September 8, 2022 4:55:45 PM

_____

Dear Mr Hartung,

When is a Public HealthDepartment not a Public Health Department? When it fails to protect the public from ongoing pollution and health risks, and when it yields to the wishes of business and industry, deciding on corporate favor over the public good and scientific data and danger warnings.

I take no pride in living in the largest dirty city in the US, where I was born, and have lived the past 45 of my 75 years. I was a pediatric nurse for 30 years, working in hospitals, homes, and school. Asthma is the disease most responsible for missed school days and parents missed work days. Asthma in Philly is more than twice the national average and one third of Philly's children live in poverty.

Studies of environmental justice and health patterns in our city have shown the areas of our city that need attention to fix the racist, classist, injustices perpetrated on the vulnerable neighborhoods. Still the city's proceeds to ignore its responsibility to fix our city by removing or regulating the sources of pollution that impact our most vulnerable populations.

I cannot comprehend that a Health Department would ignore what is in front of them and fail to act to improve our city's health. And now you want to act
regressively in ways that will worsen the health of all of us, especially the most vulnerable. And you want to do it without science, without informing us, without our consent. Shameful at a time we need more oversight, more transparency, more good sense to tighten regulations, not loosen them. We need more attention to health concerns, less pollution, less racism, and an increase in environmental justice.

Please advocate for the people. Manage our air appropriately.

Sincerely,
[redacted]

Sent from my iPad

Benjamin Hartung

From: Florence Buckley [redacted]
Sent: Monday, August 8, 2022 3:35 PM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

---

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Florence Buckley

[redacted]

From: Katlyn Connor
To: Benjamin Hartung
Subject: AMR VI Amendment Comments
Date: Thursday, August 11, 2022 12:48:13 AM

Hello my name is Katlyn Connor and I am a concerned citizen in the East Falls neighborhood of Philadelphia. Thank you for the opportunity to speak on AMR 6 this evening. I am a volunteer with Penn Environment and lobby to pass legislation in PA to reduce air and water pollution, among other climate actions. I work at small business Rabbit Recycling to address the waste crisis in Philadelphia. Personally, I consistently strive to reduce my environmental impact with low-waste solutions. Pouring so much effort into the fight against the climate crisis can feel minimized when pollution caused by corporations is unchecked. A specific example is the explosion at Philadelphia Energy Solution refinery, which released toxic chemical hydrofluoric acid into the atmosphere. A study conducted by University of Pennsylvania showed that before the refinery explosion, PES accounted for 72% of Philadelphia's toxic emissions. Additionally, PES had violated the Clean Air Act's emission limits for 9 of the 12 quarters prior to its closure. Allowing operations to continue without interference is a gross environmental injustice, considering that neighboring communities are predominantly of color and below the poverty line. It is long overdue to hold commercial polluters accountable for their deeply harmful actions. I am not familiar with the specific details of AMR 6, but I have heard comments tonight raising concerns that the revisions to AMR 6 are not strong enough in tackling health impacts of air pollution. I support the strongest regulations put forward by previous speakers. Thanks again for the opportunity to speak tonight.

9/8/2022

TO: Benjamin Hartung

FROM: Lisa K Hastings, EJ Chair
Environment Committee
Pennsylvania League of Women Voters

RE: Comments on Amendments to Air Management Regulation VI Control of Emissions of Toxic Air Contaminants

It is commendable that the Department is adding more toxic air contaminants to those it acknowledges as health risks. The rest of the amendment and its corresponding documents seem geared at reducing the number of polluters who are subject to regulation of TACs, making high emissions of TACS allowable under this regulation, making it easier to get permits regardless of public health concerns, and withholding information on toxic emissions from the public. Initially, I thought that sensible changes to the current amendment would be possible, but the problems in this amendment are so great that this amendment should largely be disregarded, with changes limited at this time to

*Adding the new toxic chemicals, and expanding the definition of toxic air contaminant to explain they contain the chemicals referred to as hazardous air pollutants (HAPS), in EPA materials. [This will eliminate some confusion from using different terms when there is so much overlap between them.] If there are federal HAPs that are not on AMS's TAC list, they should be added to it without delay. The list of TACs should be subject to continuing updates as information from EPA or AMS evolve. Please add this continuous update to the regulation. This way, the list will never become outdated again.}

*Deleting all exemptions in the existing regulation (and proposed amendment if it survives review) from having to disclose all their TAC emissions or being subject to specific TAC regulations,

*Requiring all facilities applying for a permit *of any size or permit classification* to report expected TACs emission to AMS.

*Requiring AMS to include TAC information (chemicals and emission amounts) in public notices that accompany permit applications. Additional materials related to TAC emissions developed or required in the future will be appended to applications and subject to the same review and comment period as the draft permit.

*Requiring AMS to include a facility's TAC information (chemical, emissions and any assessments or other information related to TAC emissions) on the AMS website, as well as keeping it on file physically at AMS.

The above changes would update and improve AMRVI, ensure public notification of toxic air contamination from proposed and existing facilities as well as allow multiple ways for the public to access additional materials in the future, without creating exemptions and restrictions that make the current and proposed AMRVI essentially worthless in achieving the stated goals of reducing toxic air contamination and improving public health.

Other additions in the amendments, including threshold values that would require risk assessments, the health risk assessments themselves and the mitigation plans that might be required *are not credible enough to be included in this regulation*. (Mitigation plans would allow polluters to factor in their own cost/benefit analyses to decide on factors; the Department only gets to approve or disapprove and the public has no input. This is a classic recipe for "regulation by polluter" and does not belong in Philadelphia.) As explained in great detail by many commenters, the numbers and methods used to come up with these values and assessments were not based on the best science, the best information commonly available, and would, if implemented, result in AMS allowing facilities that *would increase, not decrease* the cancer and health risks in Philadelphia, especially in already overburdened EJ neighborhoods. This is counter to the stated purposes of this regulation and to the Department's responsibility to protect public health and the environment.

In a separate rulemaking that should start without delay, the Department needs to scrap the flawed approaches it took in the proposed amendment and associated documents, and do further research on up-to-date science, EPA guidelines and goals, and how other states that lead on environmental protection approach toxic air contamination. Opening up regulation development to working public meetings may be helpful in developing the best approaches to take as long as the protection of public health and the environment remain the controlling factors.

As an example of an area needing improvement, EPA has long called for looking at toxic air contaminants that occur in the same place all together, while AMS insists on only assessing toxins one at a time, as if they are the only contaminant in the surrounding air, and as if there were not multiple polluters in the nearby area. Please refer to the extensive comments submitted by Earth Justice for examples and references to methods used and endorsed by EPA and used by other states. At the very least, AMS could adopt the method that EPA uses to assess toxic risk values in NATA, and combine the risk values from all contaminants in NATA values for background air, add in emission values from sources within a short distance from the proposed facility, and add the emissions that the facility would contribute. This would result in a fairer picture of what the public would be exposed to than looking at one toxic at a time from only the proposed facility. One facility and one toxic at a time might suffice in the wilderness, but not in the city.

The fact that people living in Environmental Justice areas are more likely to suffer harmful impacts from pollution than people living outside those areas is commonly accepted. Specific Health Risk Assessments that include demographics and existing health factors, as well as adjusted "acceptable" risks in Environmental Justice neighborhoods should also be considered by the Department in developing improved values.

In and out of designated Environmental Justice neighborhoods, the existing cancer risk and number of cancer and other pollution-related deaths should impact what additional "risk" is "acceptable". At some level, there is no additional "acceptable" risk of death, and permits should be denied. The Department needs to be careful to come up with risk factors that are tailored for Philadelphia conditions, not average conditions across the country.

In addition to searching comments for technical information, I also implore the Department to look to EPA's "Integrated Urban Toxics Strategy" (epa.gov/urban-air-toxics) for guidance, and ask that the Department develop a TAC program that will help attain EPA's stated goals of that strategy:

*Attain a 75% reduction in incidence of cancer attributable to exposure to HAPs emitted by stationary sources;
*Attain a substantial reduction in public health risks (such as birth defects and reproduction effects) posed by HAP emissions from area sources; and
*Address disproportionate impacts of air toxics hazards across urban areas.

The proposed amendment to AMRVI works against, not toward those goals, which should be reason enough to scrap it.

Technical Documents

It is also important to disregard the current Health Risk Assessment Technical Support Document and the Technical Guidelines for Air Management Regulation VI. In addition to not using the same methods and invalid assumptions to avoid recreating the same poor results, the Department must also not follow the exemptions laid out in Appendix B of the Technical Guidelines as new ones are developed. The appendix of exemptions allows even facilities using major source levels of natural gas to not have to bother with health risk assessments even though burning natural gas creates toxic air contamination known to add to cancer and other health risk levels.

In reworked documents, all polluters of any size should have to report TAC emissions and go through whatever process is developed. If a facility produces minimal pollution, it will show up in a fair process.

The natural gas exemption places the advancement and expansion of this fossil fuel within the city over the health of the public and the environment. Care should be taken in the future that this is not included in future documents, regulations or actions. Protecting public health and the environment, not promoting the expansion of natural gas in spite of the high cancer death rates and critical environmental priorities of the city must be the reflected in regulatory actions the Department takes.

Thank you.

Lisa K. Hastings
[redacted]
[redacted]

[redacted]

9/9/22

TO: Benjamin Hartung

FROM: Lisa K. Hastings
Pennsylvania League of Women Voters

RE: Further clarification of submitted AMRVI comments

I am submitting this comment to further explain some aspects of my previous comment, submitted 9/8/22.

In it, I called for deleting all exemptions in the current and proposed regulation. These overly broad exemptions do not apply to a few rare or minor sources that are unlikely to cause harm; they make this regulation fairly useless by not applying it to the *majority of sources* that emit toxic air contaminants. The shear volume of the exempted, polluting sources is problematic, especially since they contain known emitters of air toxics.

For example, the current regulation exempts all combustion processes that use "only commercial fuel". AMS interprets this as including all emissions generated from natural gas, thus exempting all the natural gas generators and CHPS (combined heat and power) plants that have sprung up all over the city. With the oil refinery gone, combustion of natural gas comprises a large amount of the city's air pollution, including air toxics, from stationery sources. So, the existing exemption must be eliminated so the regulation will meaningfully apply to current sources of air pollution.

While the proposed amendments replace this exemption section, it is replaced with other broad exemptions, including the exemption for all "non-Title V" sources. In other words, if a facility is not required to have a major source permit, it is exempted. (Some major sources are also exempted, in the regulation or accompanying documents.) However, while covering major sources initially sounds like a lot, less than 7% (28) of the 443 currently operating permitted sources in Philadelphia (EPA's ECHO data base) have "major source" operating permits. That means that it would *not apply* to over 93% of polluting facilities. If all the other sources were truly "minor", perhaps this wouldn't matter as much, but 67 sources are operating under "synthetic minor" operating permits which are exempted under the amendment, whether they emit pollution from burning natural gas, emitting residual chemicals from manufacturing, or any other toxic pollution.

"Synthetic minors" *all have the capacity to emit as major sources*, but basically agree to operate below capacity and keep their emissions below major source levels in order to not have to deal with the extra measures placed on major sources. This is allowed by the CAA. Still, it is possible for them to operate, either intentionally or accidentally, at a major source level. Given that AMS does not require these sources to have continuous emissions monitoring to prove they are not exceeding their permit level, and since AMS enforcement is lax, these sources, which make up 70% of the sources that could emit toxins at a major source level, could easily emit more than they are "permitted to". If AMRVI is supposed to accomplish anything, then at the very least, it must apply to all facilities that have the CAPACITY to emit as major sources, not just a portion of those who are "permitted" to do so. This would include all major and synthetic minor sources, even structures that burn a lot of natural gas.

I maintain that ideally all sources should report and be screened for toxic air contaminates since a facility, like a chemical manufacturer, does not have to be extremely large to emit a lot of dangerous, toxic chemicals. It is also in keeping with other states. NJ does not exempt any facility that requires an air permit of any size from their air toxics program. (Personal communication, NJ DEP Air Division). Neither should Philadelphia.

By not covering "minor" (synthetic or truly small capacity) facilities, the Department is also decreasing the protection from pollution for many people as permits are renewed or replaced. An example is the old PES refinery site. When the refinery was operating, their major source permit required fence-line monitoring for benzene. Now that it is being demolished but is still emitting benzene, the permit is now "minor" and AMS said at a public hearing I attended that it would not require any more monitoring even though benzene levels still exceed EPA's action levels on a continuing basis. "Minor" permits don't require monitoring and eventually, all the benzene will be gone. (This does not quite capture the level of dismissiveness of the current situation and population that was displayed.)

Any regulation that is supposed to decrease emissions and health impacts from carcinogens should have the ability to mandate measures that would reduce the amount of a highly carcinogenic chemical in a neighborhood where having cancer is unfortunately almost a common occurrence, even if a "major source" is no longer located there. AMRVI as amended would do nothing to help. Even if AMRVI is given "teeth", the current facility is "minor" and would not be covered. People in Gray's Ferry will continue to be exposed to this carcinogen. Their deaths will not disappear because this carcinogen will no longer be measured.

In my comments, I also insisted that AMRVI include the requirement that all toxic air contaminants be reported to AMS and that AMS be required to disclose them in public notices, even though AMRXIII and Chapter 127 Title 25 Pennsylvania Code require that public notices for air operating permits and plan approvals include the "type and amount" of all air contaminants that will be emitted. I ask that this also be included in AMRVI to clarify that toxic air contaminants are included in the requirements to disclose all "types and amount" of contaminants. In the past, most notably with the Midvale natural gas generators, AMS knew but did not disclose in the public notice that toxic air contaminants (36 HAPS) would be emitted. The public did not find out until long after the public comment period had ended and days before the final permit was approved. The city maintained that because the facility was exempted from AMRVI, AMS never had to tell the public about the HAPS emissions at all.

Not telling the public about potential toxic air pollution is something that should clearly not be allowed, and including public disclosure as a requirement in AMRVI is needed so AMS will do so in the future.

Please, do not allow AMS to continue to "exempt" pubic health and the public from protections.

Thank you.

From: Loretta Dunne
To: Benjamin Hartung
Subject: Amendments to Air Management Regulation VI
Date: Wednesday, September 7, 2022 2:09:54 PM

Mr. Hartung,

As a Philadelphia resident, I'm deeply alarmed and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even remove the prohibition on toxic emissions exceeding permit limits and no longer require the polluter to tell the Health Department when the toxic emissions will -or did- begin.

Over 93% of permitted facilities would now be exempt from the obligation to report their toxic emissions to the Health Department because of five newly added exemptions in Amendments to AMR VI "Noticing Section." Only Title V (major) facilities have the obligation, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know about the poisonous substances being put into their neighborhood air from permitted facilities. AMR VI should clearly mandate that the “type and quantity” of all toxic air contaminants from any facility requiring a permit must be included in the facility’s public notice. It would bring AMR VI into compliance with PA State Code Title 25, Chapter 127, section 45, which Philadelphia is obligated to follow. The City Health Department must be aware that its own Air Management Regulation XIII adopts PA State Code Title 25, Chapter 127 in its entirety.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) Therefore, unreported emissions of most permitted facilities in Philadelphia would apparently disappear from the records that the State receives from the City, and which the State has maintained.

The former PES Refinery is no longer permitted as a major source. New exemptions would allow Sunoco Evergreen cleanup operations and HILCO, the new owner, to not monitor or report highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground. SEPTA's gas plant in Nicetown is a synthetic minor source and would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. With the new exemptions, it’s unclear whether the next stack test at that facility would stop testing for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, would perform the assessment. This is backwards, an obvious conflict of interest. If a risk mitigation plan is required, again the polluter, not the Health Department, would develop mitigation plans and even include their cost-benefit analysis for approval of the Department. The City's Health Department should be directly accountable to the public, take full responsibility for calculating health risks and create mitigation plans. Those health risk assessments and mitigation plans should be publicized in plenty of time to include any concerns and objections during permit plan approval public comment periods. Keeping health risk assessments and mitigation plans "on file at the Department," not even on the Department's website, would be inadequate public notice.

Exemptions for health risk assessments are written into the Technical Guidance Document, Appendix B. The most striking is for major sized gas burning facilities up to 50 million BTU/hour, because 50 million BTU/hr. is almost twice the size of the threshold for a major source. The Technical Guidance document prefaces this exemption with the statement that Air Management Services determined a facility this large would have minimal toxic emissions, with no explanation. However, PA code Title 25, Chapter 127.36(c) requires an explanation. "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All health risk exemptions in Appendix B should be eliminated.

Scientists and nonscientists understand that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department created new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document. The calculations are highly questionable. One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxins flagged by California Air Toxics Program as too poisonous to even have a threshold. Another flag is that more than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, while only 8 of Philadelphia's are lower than New Jersey's. 93 are the same. Who is using up to date science and accurate math? Why are Philadelphia's calculations not explained, as required by Chapter 127.36(c)?

Perhaps the most shocking show of disdain for the health of Philadelphia's residents is in The Technical Guidance document. It establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. The Department knows that Philadelphia has never been in EPA compliance for ground ozone and is the large-

city capital for asthma. The Department is aware that most of Philadelphia is designated as environmental justice neighborhoods and that their own published disease and mortality levels in the city correlate to air pollution levels. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for human beings living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better. I have seen the devastation cancer can do to an individual and to the family. Raising the benchmark for cancer is unacceptable. This amendment is unacceptable to the citizens of Philadelphia.

Sincerely,
Loretta Dunne
[redacted]

Benjamin Hartung

From: Loretta Dunne [redacted]
Sent: Monday, August 8, 2022 6:54 PM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

---

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Loretta Dunne

[redacted]

September 9, 2022
Mr. Benjamin Hartung
Benjamin.hartung@phila.gov
Philadelphia Department of Health

Dear Mr. Hartung, cc Dr. Bettigole and Dr. Raval-Nelson,

Below are our biggest concerns and recommendations. Thank you in advance for a thorough consideration of a long and detailed comment on the set of documents made available to us. I want to warn you that I will rake AMS over the coals.

I. Introduction

Regardless of the silver lining selling point, a long needed update to the list of AMS recognized toxins, the AMR VI documents we had access to would allow AMS the discretion to decide, like a grim reaper cartoon character, in a case by case basis, whether to welcome a cancer risk more than twice the present risk in any Philadelphia census tract. The documents, by omitting any provision, or mention of provision elsewhere, for informing and the listening to the public, would keep data on toxics emitting from most facilities unreported, and therefore hidden from the public. In a nutshell, to these drafts, No thank you. The Department must do better, or the public shall have to find its way forward and rewrite the regulation.

The Department has new leadership and a window of opportunity to clarify its internal culture. Simplicity of mission, as stated in City Code, is to protect public health. Any compromise to the mission damages the very people whose taxes are a main source of funding for their health protection. An applicant requesting a permit to contaminate the air cannot be considered by the Department of Health as a "paying client,' deserving of compromises within the regulations, in order to protect profit margins. The Department must reject influence to that effect from other departments, or nonelected powers.

II. General Recommendation: The Health department needs to pick a clear linear path and position itself to follow the EPA Strategy for Reducing Health Risks in Urban Areas. It's three goals are the following:

- Reduce by $75% the risk of cancer associated with air toxics from both large and small commercial and industrial sources
- Substantially reduce non-cancer health risks (e.g. birth defects and reproductive effects) associated with air toxics from small commercial and industrial sources
- Address and prevent disproportionate impacts of air toxics hazards, such as those in areas known as "hot spots," and on sensitive populations in urban areas, including: children, the elderly, minority and low-income communities.

III. Specific Recommendations for AMR VI Draft Documents

A. Regarding "Amendments to AMR VI"

1. **Remove the Exemptions subsection from Section II, NOTICE REQUIREMENTS** Pages 8-9

   All facilities that require an air contamination permits should report a list of toxic emissions to the Health Department. AMS has the responsibility to collect that information and make sure it is included in Public Notice. It also has to send it to the State of PA. If that kind of report is too arduous to demand from certain applicants, then those particular applicants should not be considered responsible enough to be allowed to dump poison in the air.

   Exemption #(4)- for all non-title V facilities is the worst of the five exemptions. It translates to 93.7% of all permitted facilities currently operating in Philadelphia, even synthetic minors, which have the capacity to operate as major sources, and do, for much of the year.

   AMR VI does not state that AMS will estimate toxic emissions for non Title V sources, or mention them in permits, or publish them as part of public notice, or send them to PA DEP. Therefore, these emissions could simply go unrecorded, "unnoticed" by an uninformed public, and become absent from State records.

   AMS has an entrenched tradition of not including HAPS in public notices for minor plants, even though Title 25 PA State Code Chapter 127.45 clearly requires all facilities requiring an air pollution permit to include all emissions in public notice. AMS is quick to say that their job is to follow City regulations. But how about AMR VIII, which adopts Chapter 127? Its attorneys should be aware that City regulations are allowed to be more stringent, but not less stringent, than any chapter of state code, like the one in AMR VIII.

   AMS has enjoyed shirking Chapter 127.45, by clinging to an archaic exemption in the Noticing Section of the original AMR VI. This exemption is for ALL fuel burning facilities! But Chapter 127 does not "grandfather in" pre-existing local rules which undermine state standards.

   In the AMS Revised "Inter Office Memo of 11/21/2017, a technical document for the SEPTA Midvale CHP, AMS justified the City's snub of State code by citing the AMR VI exemption under the heading "Evaluation of HAP Emissions, Air Toxics" on p6. AMS had not included HAPS in public notice, or in any documents published on their website before the public comment period, or after during the 5 months of deliberation, until finally 8 days before issuing the plan approval, AMS quietly provided the list of HAPS and some plans for management in the revised Inter Office Memo and placed it on their website.

   > *"An analysis of the HAP Emissions vis a vi Air Management Regulation (AMR) VI, governing Toxic Air Contaminants, was not required for the CHP project because emissions generated from sources that combust commercial fuel, like natural gas, are exempt. See AMR VI. § II.C."*

The practical reason why Chapter 127.45 requires public notice of HAPS for minor sources is simply that their toxic emissions can cause significant health risks. Two local examples of synthetic minor sources that spew concerning amounts of toxics into lungs, eyes, vegetable gardens, are below.

The former PES Refinery is no longer Title V. Benzene, at above EPA threshold levels, still bubbles up from underground pools and escapes equipment being disassembled on site. Exemption #(4) removes the obligation for HILCO or Sunoco Evergreen Clean Up Operation to report benzene at the property. AMS could choose not to monitor this benzene and report the levels to DEP, since the property has "minor permits." Neighbors will have no way to know about the benzene in their air. Does Philadelphia Health Department want the public to simply rely on DEP and EPA interventions?

SEPTA's CHP in Nicetown has a "synthetic minor" permit. The plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. With Noticing Exemption #(4), it's unclear whether stack tests there will stop testing for toxics. Any new facility like SEPTA's may not be obligated to do stack tests for undeclared, unidentified toxic emissions.

2. **Reinstate the original wording, which mandated an applicant to list toxic emissions including their quantities, and which also mandated the applicant to communicate the date when toxic emissions would begin- or did begin. SECTION II Notice Requirements A. Notice of Emission ~~(4)~~(1)** Page 7.

   Reasons why:

   - All applicants for air contamination permits must have to list the toxics emissions including their amounts. (The word "may" also means "maybe not," depending on something vague.)
   - If a Department form will be used, it should not be flexible about requiring the information than AMR VI used to require, and a copy of the form should be provided in this AMR VI document.
   - The applicant should reveal the date when emissions are to begin or already began.

This is how it looks right now:

~~(4)~~**(1)** Notice shall ~~include a list identifying~~ **be made on a form as prescribed by the Department, and may require applicants to identify** the toxic air contaminants emitted; the associated areas or operations within the facility from which the toxic air contaminants are emitted; **and provide** estimates of the maximum hourly, daily and annual emission rates for each toxic air contaminant emitted from the specified areas or operations within the ~~facility; and the date when the emission of each toxic air contaminant began or is expected to begin.~~ **facility."**

To fix these problems, try this:

~~4)~~**(1)** Notice shall include a list identifying the toxic air contaminants emitted; the associated areas or operations within the facility from which the toxic air contaminants are emitted; and provide estimates of the maximum hourly, daily and annual emission rates for each toxic air contaminant emitted from the specified areas or operations within the facility; and the date when the emission of each toxic air contaminant began or is expected to begin. **All of this information will be entered on an official Department form as shown below…**

3. **The Health Department, not the applicants, should do health risk assessments in SECTION III. REGISTRATION, REVIEW AND APPROVAL REQUIREMENTS C. CONDITIONS OF APPROVAL (2)** Page 10

There is a conflict of interest if the polluter (the applicant) does the health risk assessment. If AMS is worried about funds to pay its staff to do this, the applicant for an air contamination permit can certainly pay a standardized fee to compensate the Department.

Here is the language which needs to be changed: "(2) The Department shall require the applicant for any permit or license for any source of toxic air contaminants affected by this Regulation to submit an assessment…"

It should say: : "(2) The Department shall do an assessment of health risk or hazard..."

4. **Reinstate the original paragraph prohibiting a facility from emitting more than the approved toxic emissions! SECTION III C. CONDITIONS OF APPROVAL** Page 11

Right now it is crossed out!

~~(3) In approving an installation permit or operating license for any facility to emit or discharge a toxic air contaminant, the Department shall specify the maximum allowable emission rates and the other conditions under which approval is granted. Any increase in emissions over the approved maximum allowable emission rates, without first obtaining approval from the Department is prohibited.~~

B. Regarding Technical Guidelines to AMR VI

1. Remove all exemptions in Appendix B. TOXIC AIR CONTAMINANT EMISSION SOURCES THAT DO NOT REQUIRE A RISK ANALYSIS page 23.

The worst exemption is:

(iv) Boilers and heaters with no more than 50 million BTU per hour capacity, burning only natural gas, and with an exhaust stack at least 20-foot tall and at least 10 feet away from the facility property line.

50 million BTU/hr. is a large major sized facility. The approximate threshold for a Title V is a little over half the size (29million BTU/hr.) In PA code, there is a noticing exemption for gas burning facilities up to 10 million BTU/hr. This means that even our state, which is heavily invested in natural gas drilling and sales, recognizes the importance of toxics from gas burning facilities larger than 10million BTU/hr.

Appendix B prefaces Health risk assessment exemption (iv) with the statement saying that Air Management Services determined a facility this large would have minimal toxic emissions. There is no explanation how it was determined. PA code Title 25, Chapter 127.36(c) requires an explanation. "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All health risk exemptions in Appendix B should be eliminated.

6. The Health Department should pause on Thresholds for Toxics and organize a transparent peer review process in order to make adjustments to Thresholds. Pages 3-10.

The calculations are highly questionable and calculations are not explained, as required by PA Code Title 25 Chapter 127.36(c)

- One obvious red flag is that more than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, while only 8 of Philadelphia's are lower than New Jersey's. 93 are the same. Who is using up to date science and accurate math?
- Another glaring red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxins flagged by California Air Toxics Program as too poisonous to even have a threshold. California Air Toxics Program flags the following toxins. The AMS thresholds in pounds/year are placed after each toxin.

  Asbestos 0.007 lbs., Benzene (C6H6) 7 lbs., 1,3-Butadiene (C4H6) 1.8 lbs., Carbon tetrachloride (CCl4; tetra chloromethane) 9 lbs., chloroform (CHCl3) 2.3 lbs., Dibensonfuran 1000 lbs., Ethylene Dibromide (BrCH2CH2Br; 1,2-dibromoethane) 0.09 lbs., Ethylene Dichloride (ClCH2CH2Cl; 1,2-dichloroethane) 2 lbs., Ethylene Oxide (1,2-epoxyethane) 0.01 lbs., Formaldehyde (HCHO) 4 lbs., Methylene Chloride (CH2Cl2; Dichloromethane) 2000 lbs., Perchloroethylene (C2Cl4; Tetrachloroethylene) 9 lbs., Trichloroethylene (CCl2CHCl; Trichloroethene) 10 lbs., Vinyl chloride (C2H3Cl; Chloroethylene) 6 lbs., Inorganic Arsenic (arsenic compounds) 0.01 lbs., Cadmium (metallic cadmium, cadmium compounds) (cadmium oxide) 0.01lbs, Hexavalent chromium (Cr (VI)) 0.0045 lbs., Inorganic Lead 2 lbs., Nickel (metallic nickel and inorganic nickel compounds) 0.2 lbs.

7. The Health Department (AMS), not the applicant, should be the responsible party that creates mitigation plans to reduce health risk. IV Risk Mitigation Plan Page 18

The applicant is the polluter and has a conflict of interest.

8. We summarized and support these 7 recommendations made by Earth Justice and Clean Air Council in their 29-page comment. Two NAGP opinions are in *bold italics.*

- The cancer risk guideline benchmark for undue health hazard of 100-in-1 million must be reduced to 10-in-1-million, unless the Department assesses all cumulative health risks as described in the EJ/CAC comments, in which case it can be 25-in-1million. 100-in-1 million allows for more than twice the risk currently existing in Philadelphia. (US EPA

AirToxScreen puts Philadelphia cancer risk from air pollution between 30 and 40 in a million.)

- AMR VI and the Technical Guidelines must add comprehensive provisions for public notice and public input on the health risk assessments and risk mitigation plans. There's no mention of requiring public meetings or a process for a public challenge to a permit or to an AMS decision. The public needs to be provided with the necessary information in a timely manner to make informed decisions and take appropriate action to protect health.
- The Board should commit to review and revise these regulations every 5 years, with advanced public notice and a ***60 day*** comment period.
- AMS should use readily available scientific methods for calculating cumulative impacts in health risk assessment. The amended AMR VI method for calculating health risks vastly underestimates the risks. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA.
- Risk Mitigation plans must ensure pollution reduction and control. "Case-by-case review" should not occur unless it is clearly defined. ***NAGP is against "case by case review" because it encourages corruption.*** Acceptable standards for mitigations should be defined and monitored with mandated consequences if the plan is not followed. More mitigation strategies should be added to the suggested list.
- Exceptions to the rule are not justified and should be eliminated because exempted facilities could most harm public health.
- The Health Department is obligated to use its mandate and authorization to protect public health in accordance with city code and Article 1, section 27 of the PA Constitution- "...The people have the right to breathe clean air..."

C. Regarding Health Risk Assessment Technical Support Document for AMR VI Amendment

1. Add all missing EPA identified HAPS in the List of Toxic Air Contaminants (Hazardous Air Pollutants).

If all missing HAPS are mentioned in the FAQ for AMR VI- (Radionuclides and Fine Mineral Fibers) then AMS should follow EPA guidance on radionuclides. As soon as EPA guidance on Fine Mineral Fibers could comes out, follow it.

2.1.1 Dispersion Model

The AERMOD computer model is only as reliable as the inputs from the user. Background air input is key, but is not mentioned in the document. If AMS staff uses background air the way it did when looking at SEPTA's CHP, taking samples from an air monitoring station almost 4 miles away, no one will trust AERMOD calculations.

2.1.3 Meteorological Data

“Meteorological data sets include ground level weather observation data and upper air profile data.” I see nothing about weather except wind pattern.

Data collected in the years 2010-2014 were used. Old data. Why?

“The ground level data were the Philadelphia International Airport data sets.” Looking at an airport next to a small town would be perfect, but Philly is a big city with different elevations and terrains. Since wind patterns and wind speeds vary from neighborhood to neighborhood- even from block to block, the Department could set up weather stations and create a data base for wind patterns.

2.1.4 Stack Parameters and Emission Rates

“Emissions were assumed to occur 24 hours per day, 365 days per year.”

For a synthetic minor, it’s not reliable math to look at annual emissions and divide by 365 because they run at full capacity sometimes and under capacity at other times.

2.1.6 Receptor Grid

“Modeling was performed assuming flat terrain within the modeled distance range.” Not appropriate in a hilly city like Philadelphia. AEMOD offers terrain inputs. Is this a mistake?

2.1.7 Model Input and Output

“Using this process, tables of worst-case hourly and annual impacts by stack height and distance were created for stacks from 15 ft to 250 ft …”

15 ft stacks? Does this mean that Health assessments will be done for the smallest minor facilities?

Review of the AMS permitting and emission inventory data showed that at least 57% of approximately 1100 stacks (or release points) permitted in Philadelphia (not including small sources that are not reported in the emission inventories) are no more than 40 feet high.”

40 ft stacks are not for Title V sources. Perhaps AMS does know that it should require health risk assessments for minor sources?

IV. Conclusion

It's aggravating that the AMR VI drafts failed to address the need to improve health and prevent a rise in our cancer rate. The Department knows Philadelphia's cancer rate is the worst in the state and that PA's rate is above the national average. The Department should know that most of Philadelphia is designated as environmental justice neighborhoods, and that it's own published disease and mortality levels in the city correlate to air pollution levels

This comment is directed towards the City attorneys who we assume will read it, even though they may try to deny that state code is mandatory in Philadelphia, or that the Department's mission is aligned with EPA guidance. They may try to craft complex excuses for loopholes and exemptions as necessary for protecting the City's overall economic health, so everyone can live better. That approach simply is not going to work. The comments are also squarely directed towards the hope that the new leadership of the Health Department will earn our trust.

Sincerely,
Lynn Robinson
Director, Neighbors Against the Gas Plants
[redacted]

From: Cheryl Bettigole
To: Benjamin Hartung
Subject: FW: Hazardous air pollutants
Date: Wednesday, August 10, 2022 6:15:32 AM
Attachments: Thresholds Different than in CA.pdf

Hi Ben,
Can you add this to the public comments? It seems like it should be included, although I've asked Palak to take a look with the team as well.
Thanks,
Cheryl

From: Lynn Robinson [redacted]
Sent: Tuesday, August 9, 2022 10:59 PM
To: Cheryl Bettigole <Cheryl.Bettigole@Phila.gov>
Subject: Re: Hazardous air pollutants

Hi Cheryl,
Thank you so much for your email and for sending the links. I apologize that I missed your email for 24 hours! I had not seen this FAQ which focuses mainly on the Technical Guidance Document. Below are my initial thoughts about it.

In FAQ, I actually found another potential problem in # 5. **"Two chemical compound groups are in the EPA/HAP list but not included in AMR VI: Radionuclides and Fine Mineral Fibers; this is because: 1) no reference data were found available to establish their reporting thresholds; 2) no ambient air emission sources currently exist in Philadelphia."**

My concern is that if a new facility applies for a permit in Philadelphia that will emit radionuclides and/or fine mineral fibers, the city will not require them to report them. I googled EPA guidance on radionuclides but have not read through it yet. Fine Mineral Fibers have been researched, but not enough yet for EPA guidance. The guidance could come at any time.

Thresholds are another issue. Are you familiar with California's list of no threshold TACs? These TACS are considered dangerous to health in any quantity. Today I made a quick cross reference document. See attachment.

Is there a reason why the Health Department should not be the ones to determine health risk? The Health Department plan for managing health risk assessments is to require the applicant to do them. There is an inherent conflict of interest. The applicant will hire a consultant to make the numbers look as benign as possible.

Most environmental groups consider the AMR VI method for health assessment of looking at the one TAC -the one with the highest health risk - as a way to minimize the reported risk. The EPA adds

risks together to do National Air Toxic Assessments which may be imperfect but is much closer to a realistic picture.

Today I spoke with Dr. Ravel Nelson. I showed her a serious problem in the Amendments Document in "**Section II Notice Requirements, subsection C, Exemptions.** When we looked at the document together, she agreed that the current language in this paragraph needs to change.

"Facilities seeking permits or licenses for the following sources or activities, as required by Air Management Code or any regulation promulgated thereto, are exempted from the notice requirements set forth in this Section."

The way it's written, she explained, it has the opposite meaning from the intention, and she will go back and talk to people. She believes that the Health Department does not intend to exempt the list of 5 activities. All 5 should not be exempt, but especially #4. If this change is not made, attorneys for most facilities- including all non titleV facilities, will have the right to say that Philadelphia law exempts them from reporting TACs and therefore no health assessments for those facilities will be possible.

Then I showed her a serious problem in the Technical Guidelines in **Appendix B Exemptions to Calculating Health Impacts.** The 4th exemption is for major sized gas burning facilities up to 50million BTU/hr. (Approximately 29 million BTU/hr is a major sized gas facility.). She said that gas facilities are not her expertise, and she will talk to people about that. I informed her that the State of PA requires a gas burning facility of 10million BTUs/hr to give notice of toxic emissions, and of course to give notice means that health risk can be calculated.

Due to the fact that I'm recovering with COVID, it was late afternoon, and my brain was mentally exhausted at that time, we agreed to speak again tomorrow before the hearing.

My comments are in direct response to reading the AMR VI documents. As a retired creative and persuasive writing teacher, I pick up on details and can usually read exactly what is there, not what I expect to see.

I sincerely thank you for your email and I hope this is productive?
Lynn

On Mon, Aug 8, 2022 at 8:41 PM Cheryl Bettigole <Cheryl.Bettigole@phila.gov> wrote:

> Good evening,
> A friend passed on an action alert that you shared that includes some critical misinformation about the air toxics regulation being considered by the Air Pollution Control Board. I would be happy to answer any questions you have about the proposed regulation, which includes not only much stricter standards for individual toxins released in Philadelphia, but requirements for considering the total cancer risk of a facility and the cancer risk of the surrounding neighborhood. It does not roll back any requirements, contrary to the information being sent out broadly.

Please see this FAQ on the regulation. This news article may also be of interest. The regulation initially just expanded the list of regulated air toxics from 99 to 217, but in response to community feedback, we strengthened it considerably, including requiring a consideration of the total emissions from the facility and the risk in the surrounding area.

This regulation is an attempt to greatly strengthen protections against hazardous air pollutants in the city. As people who clearly care about clean air, I am hoping that you will take the time to learn more about what is proposed and, if possible, correct the misinformation you have shared with others. You are pushing back against a regulation that many advocates have requested and support.
Thank you for considering this request,
Cheryl

Cheryl Bettigole, MD, MPH
Health Commissioner
Philadelphia Department of Public Health
She/her/hers

California Air Toxics Program No-Threshold TACS

https://ww2.arb.ca.gov/our-work/programs/air-toxics-program/about

Tech Guidance#	Name of Toxin	Threshold according to AMR VI
16	Benzene (C_6H_6)	7lbs
82	Ethylene Dibromide ($BrCH_2CH_2Br$; 1,2-dibromoethane)	0.09lbs
83	Ethylene Dichloride ($ClCH_2CH_2Cl$; 1,2-dichloroethane)	2lbs
186	Hexavalent chromium (Cr (VI))	0.0045
15.	Asbestos [asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite),cummin grunerite (amosite), tremolite, actinolite, and anthophyllite]	0.007lb
51.	Dibenzo-p-dioxins and Dibenzofurans chlorinated in the 2,3,7 and 8 positions and containing 4,5,6 or 7 chlorine atoms	Only Dibensonfuran is on AMR VI list 1000 lbs
185	Cadmium (metallic cadmium and cadmium compounds)	(cadmium oxide) 0.01lbs
30.	Carbon Tetrachloride(CCl_4; tetrachloromethane)	9lbs
86.	Ethylene Oxide (1,2-epoxyethane)	0.01 lbs
118	Methylene Chloride (CH_2Cl_2; Dichloromethane)	2000 lbs/year
163	Trichloroethylene (CCl_2CHCl; Trichloroethene)	10lbs
40	Chloroform ($CHCl_3$)	2.3lbs
171	Vinyl chloride (C_2H_3Cl; Chloroethylene)	6lbs
181	Inorganic Arsenic (arsenic compounds)	0.01lbs
204	Nickel (metallic nickel and inorganic nickel compounds)	0.2
154	Perchloroethylene (C_2Cl_4; Tetrachloroethylene)	9lbs
89.	Formaldehyde (HCHO)	4lbs
25	1,3-Butadiene (C_4H_6)	1.8 lb

198 Inorganic Lead	2lb
Particulate Emissions from Diesel-Fueled Engines	N/A
Environmental Tobacco Smoke	N/A

Trinity Consultants
211 Welsh Pool Rd, Ste 238, Exton, PA 19341 / P 610.280.3902 / **trinityconsultants.com**

August 9, 2022

Mr. Benjamin Hartung
Public Policy Advisor
Philadelphia Department of Public Health
Air Management Services
321 South University Ave
Philadelphia, PA 19104

RE: Comments on AMS Regulation VI – Control of Emissions of Toxic Air Contaminants (TAC)
Eco-Energy Distribution Services – Philadelphia
Synthetic Minor Permit No. OP17-000016

Dear Mr. Hartung,

Eco-Energy Distribution Services – Philadelphia (Eco-Energy) operates a bulk terminal located at 4099 Columbus Blvd, Philadelphia, PA 19148. On behalf of Eco-Energy, Trinity Consultants are submitting these comments on Air Management Services (AMS) Regulation VI – Control of Emissions of Toxic Air Contaminants (TAC). Our comments are specific to Section III, B.(1) of Regulation VI that references Exhibit B of the Health Risk Assessment Technical Support Document for Air Management Regulation VI (Technical Document).

1. We propose that Section A.2 of the Technical Document be modified so that a facility would be able to go directly to AERMOD and not have to use AERSCREEN first as AERSCREEN is more conservative and not likely to save any modeling effort.
2. We propose the Risk/Screening Assessment just use the Reference Concentrations (RfC) and Inhalation Unit Risk to streamline the Health Risk Assessment.
3. We propose that facilities should be able to use alternative toxicity standards. This would be useful if new data concerning a TAC is developed.
4. The Risk Screening Workbook should be modified so facilities could modify the toxicity data if the information presented in USEPA Integrated Risk Information System (IRIS) changes.
5. Section III – Section A.1 should clarify that the 15 feet stack height requirement to use the Risk Screening Workbook means above grade.
6. We propose an exemption for emission sources from Regulation VI that are subject to a National Emission Standard of Hazardous Air Pollutants (NESHAP) including any case-by-case review per Section 112(g) as these regulations adequately address public health risk from air toxics.
7. FAQ document (July 2022), question No. 9 mentions that TV renewals (initial and renewals) will have to estimate a cancer and non-cancer risk. Exhibit B (Health Risk Assessment Technical Support Document for AMS Regulation VI Amendment) only mentions initial TV permit applications per Section III.D. The Technical Document should clarify that renewal application are not subject to Regulation VI.
8. The Technical Document should clarify how background concentrations of TACs are determined.

If you have any questions regarding our comments or require any additional information, please feel free to contact me at (610) 280-3902 x2353 or via e-mail at mpage@trinityconsultants.com.

Sincerely,

By: _____
Matthew Page
Managing Consultant

TRINITY CONSULTANTS

Cc: Chad Conn – Eco-Energy
Cara Waters – Eco-Energy

Benjamin Hartung

From: Alicia Clifton [redacted]
Sent: Friday, August 5, 2022 10:31 PM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

---

Dear Benjamin.Hartung@phila.gov,

As a research manager in cancer care, I strongly support your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

Please go farther. The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but do not appear to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan, or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring, and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect their community. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I strongly urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Alicia Clifton

[redacted]

Benjamin Hartung

From: Brent Groce [redacted]
Sent: Monday, August 8, 2022 1:27 PM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

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Dear Benjamin.Hartung@phila.gov,

It is unacceptable to us all to be a leader in cancer rates. We have the pinnacle of Ed's and Med's in our city and we should be a leader in addressing cancer and other environmental hazards!

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan "minimize" and "manage" the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. Thank you for your action on this.

Sincerely,
Brent Groce
[redacted]

Benjamin Hartung

From: Howard Spodek [redacted]
Sent: Friday, September 9, 2022 9:11 AM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

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Dear Benjamin.Hartung@phila.gov,

As I travel around Philadelphia, especially from my home in Mt. Airy to my teaching at Temple U. I am struck by how unequal is the air quality around the city. The issue is equality as well as health.

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. Thank you for your considerati

Sincerely,
Howard Spodek
[redacted]

Benjamin Hartung

From: Paul Wade [redacted]
Sent: Tuesday, August 23, 2022 11:36 AM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

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Dear Benjamin.Hartung@phila.gov,

I have been a citizen of Philadelphia for the past 20 years. Five years ago I was diagnosed with asthma; therefore, I am acutely aware of the need for continuous efforts to protect and improve air quality in our city, and thank you for your efforts toward this.

We need stronger regulations than those proposed to ensure meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

The Air Management Services (AMS) should require an assessment of the cumulative adverse health impacts of emissions from facilities that release multiple toxins. The impact of each individual known carcinogen emitted by a facility is insufficient. The total of ALL carcinogens emitted by a facility must be assessed to establish the total cancer risk from those emissions.

AMS needs to revise the health hazard benchmark with respect to requiring a risk mitigation plan and/or permit denial; e.g., require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more, and deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation must require the adoption of additional measures needed to improve air quality; e.g. fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance.

Penalties for non-compliance must be severe, enforceable and enforced.

AMS must explicitly provide for public review and comment to ensure community feedback on health risk assessments or risk mitigation plans for facilities affecting Philadelphia. This citizen input must be incorporated in a manner that give sufficient time for public input to decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

As an asthmatic, I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia.

Thanks,
Paul Wade

Sincerely,
Paul Wade
[redacted]

Benjamin Hartung

From: Richard Johnson [redacted]
Sent: Monday, August 8, 2022 10:44 AM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

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Dear Benjamin.Hartung@phila.gov,

Better regulation; regulation that is in-line with current science, considers cumulative impacts, provides increased opportunity for community feedback, and is reviewed every 5 years, is reasonable and necessary, especially with the impacts of climate change already exacerbating the risks of poor air quality.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,

Richard Johnson

[redacted]

Benjamin Hartung

From: ROBERT M COHEN MD [redacted]
Sent: Friday, September 9, 2022 2:28 PM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

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Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. The fact that Philadelphia has the HIGHEST cancer rate for large cities in the USA is APPAULLING and must change. Thank you for your consideration.

Sincerely,

ROBERT M COHEN MD

[redacted]

Benjamin Hartung

From: susan bloch [redacted]
Sent: Tuesday, August 23, 2022 11:30 AM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

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Dear Benjamin.Hartung@phila.gov,

Philly has excessive mortality from cancer!

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
susan bloch
[redacted]

Benjamin Hartung

From: William Ewing [redacted]
Sent: Tuesday, August 23, 2022 10:01 AM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

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Dear Benjamin.Hartung@phila.gov,

I appreciate your proposal to step up regulations against toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations should be strengthened to ensure they actually achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not sufficient to consider the impact of each known carcinogen emitted by a facility separately. Satisfactory protection of human health can be achieved only by aggregating the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

Further, the Air Pollution Control Board should commit to review the rule five years from now, after public notice and comment, to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

Please strengthen this rule in the ways suggested above to better public health adequately and advance environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,

William Ewing

[redacted]

Good evening and thank you for the opportunity to speak tonight. My name is Peter Furcht, I am a resident of Philadelphia. I am a chemical engineer, and have spent my career in the chemical industry in the field of plant modernization and process automation. While I am a member of a number of environmental and social justice organizations, tonight I am representing myself, and lots of other people who didn't know about this meeting.

Let's be honest, do we really have anything new to discuss this evening? The economics of pollution control have been well understood for decades. How much an industry pollutes is an economic decision, period. Either an industry pays for the cost of abating pollution or the communities surrounding the facilities pay for the pollution with their health and their lives. I ask you, since industry is not volunteering to pay the cost of pollution abatement and the surrounding communities also are not volunteering to pay with their health and lives, who should be forced to pay, the industry or the community? Where should the line be drawn that says a community has to pay "X" amount for the indirect costs of unabated pollution while the industry pays "Y" amount to abate their pollution? This is the real issue we are discussing and you are deciding.

Industry has made it pretty clear from the start of the industrial revolution that they weren't and still aren't willing to spend any money on pollution abatement unless forced to do so. As far as most industry management was and still is concerned, the local environment is their free dumping ground, regardless of the damage that dumping may do. In their minds, why pay to contain waste if they can dump it for free? It wasn't until the creation of the EPA and until state and local regulatory bodies came into existence that industry was forced to pay some of the costs of containing or eliminating their wastes.

In most cases, engineers know how to design a facility to pollute more or less or to a very specific amount. It is a management decision to decide whether or not the engineers can spend the money to design and built the equipment needed to abate the pollution. Yes, pollution control does cost money, there is no arguing that. It costs money to build the pollution abatement equipment and it costs money to operate it. Industry representatives tell us the industry can't afford that. It makes them uncompetitive. We've heard the arguments, over and over again, while the management gets rich from outsized salaries and bonuses. There are options available to management to be competitive, like, you know, putting some of that bonus money toward plant modernization but I digress.

For some reason, regulatory bodies such as the AMS often side with industry and accept industry's suggestions that keep abatement requirements low and limit the cost companies have to incur. Why is this? You do this to the detriment of the communities in the wake of that pollution who are forced to pay the cost for that pollution in asthma, in cancer, in birth defects, in miscarriages, in delayed cognitive development, in decimated property values, in stink, in filth, in countless other quality of life issues and issues we don't even yet understand. It is time for this to stop. It must stop.

I am not expert enough to discuss many of the new proposed regulations but in general, it is time for the AMS to require the sources of industrial pollution to <u>strictly</u> control <u>all</u> their pollution and behave as responsible corporate citizens, period. Regulations must be strengthened to ensure they achieve meaningful health protections for ALL Philadelphians.

- AMS must lower the health hazard benchmark used to decide when to require a risk mitigation plan or when to deny a permit.
- AMS must require a risk mitigation plan when the combined cancer risk of a proposed facility is at the very most 10-in-1 million. And I am talking about the COMBINED or CUMULATIVE cancer risk, not any one individual pollutant's risk.
- AMS must be sure Philadelphians are able to get information about and have input into the risk assessment and mitigation planning process for facilities that impact their neighborhood.

- AMS must be sure they are updating regulations to reflect the latest scientific knowledge.
- Lastly, the AMS must stop siding with irresponsible industry management who only care about their bonuses and force them to protect the communities in which they operate.

Why should the community, why should Philadelphian's, pay with their health, with their lives? It is time to significantly strengthen air quality regulations.

Thank you.

From: Keith Parsons
To: Benjamin Hartung
Subject: Sierra Club - AMS Health Letter
Date: Friday, September 9, 2022 3:38:38 PM
Attachments: AMS-HealthLetter - Signed by Sierra Club SPG - 09-09-22.pdf

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Dear Benjamin, the Sierra Club's Southeastern PA Group (SPG) respectfully requests that the City of Philadelphia please consider and abide by the recommendations and terms outlined in the attached PDF document.
We thank you for this consideration and the City's cooperation.

Sincerely,
Keith Parsons
Chair, Executive Committee
Sierra Club, Southeastern PA Group
--

Keith Parsons Real Estate

~Optimize Your Options~

Keller Williams Real Estate

Media, Pa.

[redacted]

[redacted]

[redacted]

NAR GREEN Designee

Sierra Club
of Southeast Pennsylvania

Sierra Club of Southeastern PA is concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even remove the prohibition on toxic emissions exceeding permit limits and no longer require the polluter to tell the Health Department when the toxic emissions will -or did- begin.

Over 93% of permitted facilities would now be exempt from the obligation to report their toxic emissions to the Health Department because of five newly added exemptions in Amendments to AMR VI "Noticing Section." Only Title V (major) facilities have the obligation, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know about the poisonous substances being put into their neighborhood air from permitted facilities. AMR VI should clearly mandate that the "type and quantity" of all toxic air contaminants from any facility requiring a permit must be included in the facility's public notice. It would bring AMR VI into compliance with PA State Code Title 25, Chapter 127, section 45, which Philadelphia is obligated to follow. The City Health Department must be aware that its own Air Management Regulation XIII adopts PA State Code Title 25, Chapter 127 in its entirety.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) Therefore, unreported emissions of most permitted facilities in Philadelphia would apparently disappear from the records that the State receives from the City, and which the State has maintained.

The former PES Refinery is no longer permitted as a major source. New exemptions would allow Sunoco Evergreen cleanup operations and HILCO, the new owner, to not monitor or report highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground. SEPTA's gas plant in Nicetown is a synthetic minor source and would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. With the new exemptions, it's unclear whether the next stack test at that facility would stop testing for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, would perform the assessment. This is backwards, an obvious conflict of interest. If a risk mitigation plan is required, again the polluter, not the Health Department, would develop mitigation plans and even include their cost-benefit analysis for approval of the Department. The City's Health Department should be directly accountable to the public, take full responsibility for calculating health risks and create mitigation plans. Those health risk assessments and mitigation plans should be publicized in plenty of time to include any concerns and objections during permit plan approval public comment periods. Keeping health risk assessments and mitigation plans "on file at the Department," not even on the Department's website, would be inadequate public notice.

Exemptions for health risk assessments are written into the Technical Guidance Document, Appendix B. The most striking is for major sized gas burning facilities up to 50 million BTU/hour, because 50 million BTU/hr. is almost twice the size of the threshold for a major source. The Technical Guidance document prefaces this exemption with the statement that Air Management Services determined a facility this large would have minimal toxic emissions, with no explanation. However, PA code Title 25, Chapter 127.36(c) requires an explanation. "In

developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All health risk exemptions in Appendix B should be eliminated.

Scientists and nonscientists understand that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department created new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document. The calculations are highly questionable. One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxins flagged by California Air Toxics Program as too poisonous to even have a threshold. Another flag is that more than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, while only 8 of Philadelphia's are lower than New Jersey's. 93 are the same. Who is using up to date science and accurate math? Why are Philadelphia's calculations not explained, as required by Chapter 127.36(c)?

Perhaps the most concern for the health of Philadelphia's residents is in The Technical Guidance document. It establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. The Department knows that Philadelphia has never been in EPA compliance for ground ozone and is the large-city capital for asthma. The Department is aware that most of Philadelphia is designated as environmental justice neighborhoods and that their own published disease and mortality levels in the city correlate to air pollution levels.

The Health Department is funded by the public and has a mandate to protect public health. We ask and expect that the City of Philadelphia, its Health Department, and industries all abide by the scientifically established protocols outlined above.

Sincerely yours,

DocuSigned by:
Keith Parsons
FB6FA7AAF9BE4D0...

Keith Parsons
Chair, Executive Committee
Southeastern PA Group of the Sierra Club

City of Philadelphia
Air Pollution Control Board
Public comment on the amendments to Air Management Regulation VI
Control of Air Toxics and Risk Assessment

ATTN: Benjamin Hartung, Public Policy Advisor

August 9, 2022

Philadelphia is home to numerous manufacturers, chemical companies, logistics facilities, and fuel storage and distribution terminals, all of which will be negatively impacted by the proposed revisions to Air Management Regulation VI, governing the Control of Emissions of Toxic Air Contaminants (Proposed AMR VI). The regulation would also affect other industries in the city, such as those in food manufacturing and small businesses, with unintended negative impact.

Additionally, the regulation would lead to a negative financial impact on Philadelphia residents, many of whom are already struggling to make ends meet. An increased regulatory burden leads to higher consumer costs for commodities such as fuel, transportation, food and more. In some cases, companies may elect to close or relocate, which would result in job loss and lost tax revenues. Many of these operations employ union members whose livelihoods could be disrupted if the aforementioned outcomes occur.

Furthermore, stakeholder engagement in the development of the proposed regulation is very unclear. The Pennsylvania Chemical Industry Council and its members operating in Philadelphia were not communicated with or included in the planning and development of the proposed regulation.

On behalf of PCIC, we respectfully request the City of Philadelphia revisit this proposed regulation and work with industry and other stakeholders, through a regulatory advisory panel, to advance a regulation that will be effective for human health and the environment without stifling economic investment, growth and job creation or producing other negative consequences for businesses and residents. The panel should be engaged prior to the proposed regulation publication and implementation.

For the last 30 years, PCIC has served as the industry trade group representing Pennsylvania chemical and plastics manufacturing operations. We have 22 members that operate chemical manufacturing plants throughout Pennsylvania, including Philadelphia, and additional associate members who supply materials and services to the industry. The chemical industry has always been an important sector of Philadelphia's economy and essential to providing products that protect the health and safety of our citizens. In fact, many of our member companies are leading the charge to advance new innovations with a focus on sustainability, circular manufacturing and establishing low- or no-carbon goals.

Well before the COVID pandemic, the chemical industry sector was recognized by the president of the United States and the Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA) as "critical infrastructure."[1] See Presidential Policy Directive – Critical Infrastructure Security and Resilience, Presidential Policy Directive/PPD-21, Feb. 12, 2013 (President Obama).[2] Indeed, it is perhaps the most critical infrastructure because, as the CISA notes, "the chemical sector is an integral component of the U.S. economy ... upon which a wide range of other critical infrastructure sections rely."

Never has this been more evident than in the recent response to the pandemic. The ongoing COVID-19 crisis has reinforced and demonstrated the importance to the community of Pennsylvania's chemical industry sector. Our sector ramped up production to meet the crisis and did so in stellar fashion. In addition, our members produced the transportation fuels that were necessary to bring critical products to market and into the hands of individuals who needed them the most.

In fact, chemicals are the starting point for virtually every product related to the health care industry and the delivery of quality care to Philadelphians, Americans and the world. Our industry met the massive increase in demand to provide hospitals and health care workers with the medical products, equipment and intensive care tools needed to treat patients.

Beyond COVID, chemical inputs are also necessary to meet other environmental, safety and public health goals. Our products are the very building blocks of cleaner energy options. For example, our products provide essential inputs for energy-saving and renewable sources of energy and other emissions reduction mechanisms such as solar panels, wind turbines, electric vehicles (EVs), high-performing building materials and advanced batteries.

Plastic insulation, sealants and other building products are making our homes significantly more energy efficient, while reducing costs for heating and cooling. Lightweight plastics in cars can dramatically increase miles per gallon, saving drivers money at the pump. These are just a few examples of many innovations helping to create a better, more sustainable future.

Our industry is also critical to food security, which is a challenge we are hearing more about every day. Our inputs help protect and preserve food products all along the supply chain. The plastics we manufacture have a key role here. Plastic packaging helps to dramatically extend the shelf life of fresh foods and beverages while allowing us to ship more products with less packaging material — reducing both food and packaging waste.

Our members are committed to safety and sustainability in the communities in which we are located and operating. We are continually and voluntarily seeking new ways to improve energy

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[1] https://www.cisa.gov/chemical-sector

[2] https://obamawhitehouse.archives.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil

efficiency and reduce emissions in manufacturing and operations. Responsible Care® is the foundation of our industry's commitment to sustainability.[3]

PCIC supports regulations that use sound science to achieve societal goals. Unfortunately, Regulation VI does not achieve this. We believe the proposed changes will lead to lower tax revenue for the city, company relocations just outside the city's borders, increased food, transportation and fuel costs, and a variety of additional collateral impacts and unintentionally affected parties that the city may not even be contemplating.

The operations of our facilities are already subject to multiple levels of state-of-the-art pollution controls and federal, state and local regulation.

- Title V Air Permit. Our facilities are subject to and comply with the stringent requirements of applicable Title V State Operating Permits. These permits provide strict emissions limitations and call for implementation of robust control devices and work practices aimed at minimizing emissions.

- Pennsylvania's and Philadelphia's RACT Rules. Many of our facilities are subject to RACT (Reasonably Available Control Technology) regulations applicable to their particular operations. The purpose of these RACT rules is to implement measures to control VOC emissions as precursors to ground-level ozone formulation. While ground-level ozone is not emitted directly by a facility, it can be formed by photochemical reaction between VOCs and sunlight. The Philadelphia and Pennsylvania RACT rules applicable to our facilities minimize this effect.

- Federal MACT Requirements. Many of our operations are already subject to the comprehensive federal MACT requirements set forth in Part 63 of CRF Title 40. The MACT rules are the federal National Emission Standards for Hazardous Air Pollutants program (NESHAPS). The MACT rules set forth extensive requirements for technology aimed at controlling emission of hazardous air pollutants to safe exposure limits with an ample margin of safety to protect public health. MACT standards are set to be protective of health, with a margin of safety.

  Because the existing MACT and RACT rules provide specific coverage to PSR based on its unique characteristics, the new rule would be inappropriate for application to PSR. Thus, the shipbuilding and ship repair sector should be exempt from the new rule.

- Best Management Practices. All of our members use best management practices with respect to all operations at their facilities. Best management practices are a set of strict

[3] https://www.americanchemistry.com/chemistry-in-america/responsible-care-driving-safety-industry-performance

processes and procedures aimed at reducing emissions and otherwise protecting environmental health and safety.

These comprehensive regulatory requirements at all levels of government are there to ensure that our members operate their facilities in a manner that takes great care to protect the health, safety and environment for all Philadelphians.

Proposed AMR VI contains various segments that would create uncertainty for both the regulated community and the implementing agency. On behalf of our members, we appreciate the opportunity to comment on various items in this regard so that both the regulated community and the regulating agency have clarity with respect to the rule changes and their implementation. Below are questions and comments that we believe need to be addressed before moving forward with the proposed changes.

- The proposed regulation calls for the performance of a health risk assessment for toxic air contaminants but states no criteria upon which the study is to be performed or reviewed. Clear criteria stated upfront would aid both regulated entities and the implementing agency. We also believe a better explanation of the basis for the unit risk factors and reference concentrations in the Risk Screening Workbook would benefit all parties.

- The triggers for a full risk assessment are unclear in the proposed changes. Currently, the thresholds set by the Technical Guidelines for Air Management Regulation (Exhibit A) are such that a health risk assessment will be required in every case, with few exceptions. This over-broadness is not warranted by any demonstrable marginal increase in protection of environmental health and safety.

- Proposed AMR VI calls for the department (i.e., AMS) to "review the existing air toxics concentrations surrounding the emissions source prior to approving or disapproving [a permit]." The meaning of this language is not clear. The directive for AMS to make site-specific permitting decisions based on existing ambient conditions that do not result from a facility is inconsistent with the permitting approach taken by surrounding states and the EPA. Such a directive would be impractical and impossible to implement because there is no information or availability of information of this nature to the applicant or the AMS. Furthermore, the concept of "surrounding" area is not defined. This will create uncertainty for both the regulated community and AMS. Also, it is not practical or appropriate for an applicant to be responsible for emissions of other surrounding operations over which the applicant has no control.

- To ensure that Proposed AMR VI is appropriately protective of public health without establishing overly stringent criteria, AMS should provide comprehensive scientific support and basis for each of the unit risk factors and reference concentrations in the Risk Screening Workbook.

- There are inconsistencies in the documents that should be clarified to prevent confusion of both the regulated community and the implementing agency. For example, the Technical Guidelines Document notes that the list of 99 air toxics included under the existing AMR VI would be increased to 217, and it identifies those contaminants. However, a PDF of the air toxics subject to the Risk Screening Workbook made available with the proposal and identified by AMS as Exhibit C lists 227 contaminants.

  It is also unclear why some of the particular air contaminants were added to the toxic category, especially because some that have been so designated are not regulated as hazardous air pollutants under the Clean Air Act. These include hydrogen sulfide, sulfuryl fluoride, diesel particulate matter, acetone and others. Consistent with the factors set forth by Section 3-201 of the Air Management Code, the board is required to make a showing that it has properly evaluated each listed contaminant.

- Similarly, it appears a different version of the Risk Screening Workbook (which has not been posted on the Department of Records website) lists 252 air contaminants, along with their reference concentrations and unit risk factors. It creates confusion because neither the regulated community nor the implementing agency can be clear on which version of the workbook is to be used.

- Based on certain supplementary materials published with the proposal, it appears the board intends that Proposed AMR VI would require existing Title V facilities to undergo risk assessment at the time of permit renewal. The Proposed Air Toxics Rule does not provide any guidance on how a facility is expected to address results of an assessment that indicates an unacceptable risk. There are no guidelines for consideration of cost or technical feasibility of a potential emission abatement approach. The proposed rule also does not set any limitations on AMS imposing any potential abatement requirement upon existing facilities during a Title V renewal process.

- The proposed regulation seeks to include background emissions as part of permitting and review. Because the level of background emissions may exceed proposed thresholds, this requirement could result in effectively eliminating any and all future permits. Permitted facilities and operations should not be held responsible for the excessive emissions of non-regulated and non-permitted sources. Any and all background emissions that are contributing to exceedances should be addressed directly by the Department of Public Health. We suggest that AMS conduct a study of such background emissions and their sources, and coordinate a program to reduce them.

The current version of the regulation will result in the potential unintended consequence of shuttering valuable facilities due to a net calculation of health risks that far exceeds actual risks and the presumed unlikely confluence of events used in the modeling assumptions. The trigger for the risk assessment process and the risk assessment process itself should consider that certain operating scenarios are infrequent and should not be the driver for the trigger or risk

assessment process. Shuttered facilities will take with them local jobs and make the products they once made more expensive for Philadelphia residents and neighboring communities.

Additionally, the regulation will lead to sustained higher fuel prices and transportation costs for Philadelphia companies and residents who already struggle with high energy costs if some of these companies were to close or relocate.

On behalf of our members, PCIC makes the following recommendations for consideration.

- Many if not all of our members who will be affected by this proposed regulation are already subject to industry-specific particularized NESHAPS (MACT) and RACT rules. These particularized rules were developed based on focused evaluation of how to minimize environmental and health impacts related to this unique industry. The new rule, on the other hand, is being developed to address all activities in Philadelphia without consideration of factors specific to any industry or activity. Because the existing MACT and RACT rules provide specific coverage based on unique characteristics of the industry sector, the new rule would be inappropriate for application to those with such existing requirements. Thus, the proposed regulation should be amended as follows:

  Any facility that is already subject to an industry-specific NESHAPS, MACT or RACT regulation is exempt from this regulation.

- Because facilities are not able to control unregulated and non-permitted sources of emissions beyond their facility boundaries, permitted operations should be evaluated only on their actual emissions. Background emissions should not be part of any permit renewal. If background emissions are considered unacceptably high, the Department of Public Health and AMS should directly address the non-permitted sources and reduce their emissions.

- The provision regarding review of the existing air toxics concentrations surrounding the emissions source prior to approving or disapproving a permit should be removed.

- Due to uncertain definition, a lack of information and the ability to collect such information reliably and accurately, reviewing surrounding-area emissions should not be a requirement for permitted facilities.

- The proposed regulation should exempt existing facilities seeking permit renewal that are not proposing a major modification of the source from the regulation.

The Department of Public Health and AMS should take into consideration the full costs and benefits of any regulatory change, including the potential loss of jobs (and the negative health consequences therein), disruptions in supply chains and the potential that the closure or reduced operation of facilities could lead to an increase in emissions.

Philadelphia has a long and storied history of business and industry working with labor unions and city officials to advance policies and regulations that protect public health and safety while allowing manufacturing to operate responsibly.

We respectfully request the City of Philadelphia to revisit this proposed regulation and work with industry and other stakeholders, through a regulatory advisory panel, to develop a regulation that will protect human health and the environment while enabling business continuity within the city. This work should take place prior to publishing and implementation.

PCIC appreciates the opportunity to provide public comment and strongly encourages city regulators to work with industry and other stakeholders to advance a regulation that will be effective while allowing our members to continue operating, investing and thriving in Philadelphia.

TEMPLE UNIVERSITY

August 9, 2022

Mr. Benjamin Hartung
Philadelphia Department of Public Health
1101 Market St, 9th Floor
Philadelphia, PA
Benjamin.Hartung@phila.gov

Re: Comments on Proposed Amendments to Air Management Regulation VI ("Control of Emissions of Toxic Air Contaminants")

Temple University – Of the Commonwealth System of Higher Education ("Temple") respectfully submits these comments on the Proposed Amendments to Air Management Regulation VI ("Control of Emissions of Toxic Air Contaminants") adopted by the Department of Public Health ("Department") and the Air Pollution Control Board (the "Board") on April 28, 2022 ("the Proposed Rule"). The Proposed Rule revamps existing regulations requiring notice of toxic air contaminant ("TAC") emissions, and establishes a new health risk assessment requirement that applies to Title V facilities and "any facility for which a permit or license is required by the Air Management Code or any regulation promulgated thereto." The Department and the Board established a written comment deadline of August 9, 2022.

Temple's operations consist of all operations necessary to support a world class research university. Temple consists of dozens of buildings serving residential, academic, administrative and research purposes, all of which require heating and cooling, backup electrical power, solid waste, stormwater and wastewater management, and maintenance services. Many of these buildings are served by Temple's Central Steam Plant, and localized emergency generators for which Temple maintains a Title V permit. The Temple University Main Campus also operates a supplemental electric generating facility that can provide backup power to a number of the University's larger buildings and systems. Many of Temple's buildings house research laboratories in chemistry, biology, physics and other disciplines. The research activities that take place in these laboratories may involve the use of TACs that are vented outdoors through laboratory exhaust systems listed as insignificant sources in Temple's Title V permit. The TACs used in these laboratories may vary widely, and with little opportunity for institutional notice, as these laboratories are often operated independently by Temple's highly qualified researchers, professors and other instructors.

In addition to Temple's operations at their Main Campus, Temple University Health System ("TUHS") operates additional facilities ranging from academic and research facilities to a large critical care hospital in under-served North Philadelphia, referred to as the Health Science Campus. Temple maintains a separate Title V permit that covers the Temple Health Science Campus which includes, among other sources, a central steam plant, backup electric generators, and local small combustion units necessary to support Temple University Hospital and other TUHS facilities.

Temple is concerned about several aspects of the Proposed Rule, and requests that the Department and the Board revised the Proposed Rule to address the comments set forth below.

1. The Department and the Board should restore the exemption from Section II of the Proposed Rule applying to TAC emissions from research laboratories.

   a. The Proposed Rule would delete former Section II.C(5), which exempted TAC emissions from, among other sources, "laboratory scale operations." Temple's research laboratories have historically fallen within this exemption which is now being eliminated. Instead, under the Proposed Rule, Section II.C. contains a list of exempt source categories, but it is not clear whether Temple's existing laboratories or any new laboratories that Temple may build, fall within any of these categories. For example, it is not clear whether a new laboratory, which could require a permit for a vent, would be subject to an "annual or indefinite license." However Temple's laboratories are within the area generally designated as the "facility" for purposes of its Title V permit, and therefore none of these sources, whether new or existing, may be exempt, even if these sources are only listed as "insignificant sources" in Temple's Title V permit.

   b. In order to remedy this uncertainty, Temple requests that the Department and the Board modify the final rule to restore the exemption for "laboratory scale operations." A similar, if narrower, exemption limited to research laboratories at or affiliated with academic and healthcare institutions would also be acceptable.

2. Research laboratories should be exempt from risk assessment requirements, even if they are part of an institution that holds a Title V permit.

   a. TACs are closely correlated to (though not identical to) federally regulated "hazardous air pollutants" ("HAPs"). Section 112 of the federal Clean Air Act, under which HAPs are regulated, specifically creates a separate category for research and laboratory facilities, which have thus far been excluded from HAP regulatory programs.

   b. Section III.A(3) of the Proposed Rule imposes the health risk assessment requirements of Section III only on those facilities subject to the Notice requirements of Section II. As noted above, research laboratories historically have been, and should remain, exempt from the notice requirements of AMR VI Section II. Therefore even if the exemption from notice requirements for research laboratories is not retained, these facilities should be exempt from the new health risk assessment obligations imposed by Section III of the Proposed Rule.

   c. Research laboratories present an overwhelming challenge for health risk assessment. Unlike combustion sources or manufacturing processes, the list and quantities of TACs emitted from a laboratory may vary considerably day to day or hour to hour. It would be very difficult to develop an emissions profile for any

research laboratory that could be used to capture TAC emissions to use as an input into the risk assessment calculation, or even into the screening tools identified in the Proposed Rule. Further, if these sources were to be included in facility-wide evaluations, at Title V facilities, for example, TAC emissions would need to be determined on a vent hood basis for purposes of modeling; a very onerous and resource-intensive exercise for a small use source type.

d. Temple's research laboratories are managed by responsible highly qualified researchers, professors and other instructors, bound by both professional and academic standards of practice and ethics. The emissions from these labs and the TACs used are always handled to minimize exposure in accordance with these standards. Additional oversight from the Department and the Board is unnecessary.

3. The Department and the Board should not use background risk when determining whether a facility performing a health risk assessment should be required to implement a Risk Mitigation Plan.

a. The Technical Guidelines attached to the Proposed Rule as Exhibit A provides that for non-Title V facilities subject to Section III conduct an "initial risk screening analysis" using either the Risk Screening Workbook or EPA's AERSCREEN model. These tools are applied to the facility's emissions only; background health risk data are not included in these calculations. If this initial analysis demonstrates a cancer risk of no more than one in one million and a hazard quotient of no more than one, the facility is not required to perform a health risk assessment.

b. All Title V facilities and other facilities that do not pass the initial risk screening assessment must perform dispersion modeling and prepare a health risk assessment. The Technical Guidelines require that the cancer risk posed by the facility, even if it is below the "negligible" level of one in one million, must be combined with background cancer risk for the census tract in which the facility is located. The facility may be required to implement a potentially costly Risk Mitigation Plan if its "Total Cancer Risk," the facility risk plus background risk, exceeds ten in one million for Title V facilities, or one in one million for other facilities. Technical Guidelines pp. 13-17.

c. Because virtually every census tract in Philadelphia has a cumulative background cancer risk of at least 28 in one million, every facility in Philadelphia that does not pass the initial screening analysis will be required to adopt a risk mitigation plan. That is true even if the results of dispersion modeling show that the facility's actual risk is negligible. Thus, facilities that do not pass the initial screening, and Title V facilities that are not permitted to utilize the initial screening, are disadvantaged compared to facilities that pose equal or greater risk, but that pass the initial screening.

d. All facilities that have "Project Cancer Risk" or "Title V Facility Risk" of no more than one in one million should be exempt from risk mitigation measures, regardless of the background cancer risk in their census tract. See Technical Guidelines pp 13-17.

e. The use of background cancer risk is inappropriate for at least the following reasons:

i. The Proposed Rule uses 2017 EPA Air ToxScreen data, but these data are already five years old. A variety of factors can change background air quality, and therefore background risk, such as the closure of the PES refinery or the sharp reduction in vehicle traffic in the City during the pandemic. Moreover, there are considerable limitations to the AirToxScreen data, a product of modeling that does not distinguish between pollution from stationary sources and mobile sources. (See EPA's page for published limitations of the AirToxScreen Data, specifically for detailed locations: AirToxScreen Limitations | US EPA.) EPA specifically cautions that AirToxScreen data "apply best to larger areas, not specific places, such as the area surrounding a facility.

ii. If the data source for the background data changes, or is updated over time, a source that passed may not pass during the next evaluation cycle even when there have been no changes to its emissions.

iii. The Risk Mitigation Plan requirement could extend the life of older, less efficient sources and frustrate the installation of new sources with better emission characteristics.

iv. For facility-wide risk assessments at existing sources, emissions from the facility under evaluation would already be included in the background, and would therefore be double-counted.

v. The use of background cancer risk is inconsistent with the New Jersey air toxics rule on which the Proposed Rule is purportedly based. Under the New Jersey air toxics rule, background cancer risk is not used to calculate facility-specific risks or mitigation measures.

vi. The reference concentrations and Unit Risk Factors (URFs) used in the Proposed Rule are very similar to those in the New Jersey rule. However, the New Jersey rule allows an "acceptable" cancer risk level of ten in one million acceptable risk level for cancer risk in facility-wide assessments (and does not consider background). Even with this less stringent standard, which reduces then need to consider risk mitigation, NJDEP is seeing exorbitantly long permit renewal periods due to issues with passing facility-wide risk assessments. The Department is likely to experience

very lengthy delays in permit processing with a rule that requires risk mitigation at nearly every facility due to the consideration of background cancer risk.

4. The Department and the Board should clarify the specific licenses and permits that trigger the obligations of AMR VI, and clarify whether and when applications for renewal of permits also trigger these obligations.

   a. The Proposed Rule would amend AMR VI in a way that would create confusion as to which permits and licenses are subject to the Notification and Risk Assessment requirements of AMR VI. The terms "license," "installation permit," "plan approval," "Title V permit," and "annual or indefinite license" are used inconsistently between the regulation and technical guidance document.

   b. Similarly, the Proposed Rule and its attachments are unclear as to when the requirements apply to renewals in addition to new permits. The Technical Guidelines provide specifically that the risk assessment requirements of Section III.D apply only to "an initial Title V permit." Renewals should not be subject to additional health risk assessment requirements or mitigation plans unless the emissions profile of the facility has changed due to the inclusion of new emission sources.

   c. Further, the regulation does not specify whether permit applications already under review are subject to the rule. The Department and the Board should explicitly state that the final rule will only apply to applications received after the effective date of the rule.

5. There are a number of inconsistencies within the Proposed Rule and its associated guidance documents and tools. These should be corrected in any final rule.

   a. The list of TACs in the Proposed Rule Appendix does not match the list of TACs in the Exhibit C Risk Screening Worksheet.

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Temple respectfully requests that the Department and the Board consider the comments set forth above and implement the changes recommended before adopting the final rule. Temple would be pleased to meet with the Department to discuss any of these comments and proposed resolutions. Thank you for your attention to these matters.

Kenneth H. Kaiser
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Senior Vice President & Chief Operating Officer

Michael Young
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TEMPLE UNIVERSITY

August 9, 2022

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Ken Kaiser
Temple University
Senior Vice President & Chief Operating Officer

Michael Young
Temple University Health System
President & Chief Executive Officer

August 8, 2022

City Of Philadelphia
ATTN: Benjamin Hartung
Department Of Public Health
Office of the Commissioner
321 S University Avenue
Philadelphia, PA 19104

Dear Mr. Hartung:

Attached please find comments on the amendments to Air Management Regulation VI (Control of Emissions of Toxic Air Contaminants) prepared by Vicinity Energy Philadelphia, Inc for consideration by the Department of Health and Philadelphia Air Management Services. Included with our comments as an attachment, you will also find comments prepared by our environmental consultants, Epsilon Associates.

If you have any questions regarding our comments or require any additional information at this time, I can be reached via email at Jessica.Hartley@vicinityenergy.us or by cell phone at 610-324-3302.

Sincerely,

Jessica Hartley
Environmental, Health & Safety Manager
Vicinity Energy Philadelphia, Inc.

Vicinity's Comments on Air Management Regulation VI Amendments

Pursuant to Philadelphia Home Rule Charter Section Number 8-407(c), Vicinity Energy Inc. submits these comments in connection with the proposed Amendments to Air Management Regulation VI ("Control of Emissions of Toxic Air Contaminants") (hereafter, "Amendments"), as such Amendments were promulgated and approved on April 29, 2022, by the Department of Public Health, acting through the Air Pollution Control Board, filed on May 2, 2022, with the Department of Records, and amended June 8, 2022. Vicinity Energy Inc. submits these comments on behalf of its wholly owned subsidiaries, Vicinity Energy Philadelphia, Inc., Vicinity Energy Efficiency (PA), LLC and Grays Ferry Cogeneration Partnership (collectively referenced as "Vicinity Energy"). In accordance with § 8-407(c), Vicinity Energy states that it is a person affected by the Amendments.

As the provider of thermal energy to numerous critical load off-takers within the City of Philadelphia, including leading universities, hospitals, and governmental buildings, among others, Vicinity Energy takes its mission as a provider of public services very seriously. Throughout our history, we have strived to evolve our means of producing and delivering thermal energy through consistently greener means. Thus, we are fully supportive of the efforts of the Air Pollution Control Board, and we believe all emitters of toxic air contaminants should be governed by the same set of rules to minimize the public harm while simultaneously meeting the public needs for heating, cooling, and sterilization.

In the detailed comments below, Vicinity respectfully requests that Air Management Services ("AMS") will:

- Clarify if the intent is to require a refined risk assessment and risk mitigation plan from every applicant for a new or renewed air permit based on the background risk reported in EPA's Air ToxScreen.
- Clarify if permit modifications for cleaner fuel conversions will trigger requirements to perform modeling and submit a refined risk assessment and risk mitigation plan.
- Make available accurate emission factors for new fuels (i.e. biofuels) that facilities are using to reduce emissions.
- Consider whether there is evidence showing that the Amendments to the draft regulation would result in an improvement to population-weighted air quality while still meeting the energy needs of critical entities such as hospitals, universities, etc.
- Include short-term exemptions to the Amendments for periods of weather emergencies, fuel supply disruptions, electric grid instability, or other crisis events.
- Provide additional guidance on how to model the intermittent emissions from back-up or emergency use combustion sources.
- Describe how AMS plans to work with facilities or companies to evaluate the options available to comply if they exceed a limit in the proposed regulation.
- Delay the implementation of the rule amendments and work with stakeholders to assess whether the rule will have adverse unintended consequences

About Vicinity

Along with 11 other cities nationwide, Vicinity owns and operates the district energy system that serves Philadelphia's Center City. Through 41-miles of underground pipes, we provide steam to over 400 buildings consisting of over 96 million square feet of the existing commercial and institutional building stock, including the growing life sciences sector, which requires steam for laboratories and manufacturing. The steam we deliver is used for heating, cooling, process, and sterilization—essential services to mission-critical customers, including the major hospitals and universities in Philadelphia. In addition to the vast network of underground pipes, Vicinity owns the Grays Ferry cogeneration facility ("Grays Ferry")—a 170-megawatt combined heat and power (CHP) generation facility that simultaneously produces electricity and thermal energy. The electricity is supplied to the electric grid, and the thermal energy, or recovered waste heat, is captured, converted to steam, and then distributed to district energy customers.

Vicinity's Clean Energy Future

In the fall of 2020, Vicinity committed to achieving net zero carbon emissions from its operations by 2050 or sooner. Many of the technologies and fuels we apply to this net zero carbon effort will also reduce the emissions of other air toxins. Simply put, Vicinity's decarbonization goals directly coincide with the Philadelphia Department of Public Health's mission to promote and protect the health of Philadelphians.

The company is reducing emissions in the urban city centers we serve by introducing renewable electricity and other new fuels and technologies into our operations (e.g., electric steam boilers, industrial-scale heat pumps, biogenic fuels, etc.). District energy is a critical tool to meet sustainability and clean air objectives; every investment made in our existing central facilities immediately impacts the over 96 million square feet of space we already serve, further greening our community without costly building-by-building retrofits or the installation of unregulated emissions sources in hundreds of individual buildings throughout the city.

Vicinity's Clean Energy Future roadmap builds upon decades of investment in sustainable energy infrastructure and technology to reduce our overall environmental impact. The roadmap to reducing emissions includes the following critical components:

- Leveraging our existing infrastructure (e.g., energy distribution network, interconnection to a high voltage transmission system and access to river-based energy for heat pumps)
- Procuring renewable energy and other low-carbon and carbon neutral fuels to integrate into our fuel mix;
- Electrifying steam generation by adding electric boilers, powered by carbon free electricity, and industrial-scale steam producing heat pumps to our operations;
- Installing large-scale energy storage (e.g., molten salt or silica thermal batteries), which will allow us to buy renewable electricity when it is most available and affordable and store it for use during peak demand;
- Investing in efficiency projects and upgrades to our existing energy infrastructure;
- Leveraging existing and installing new steam distribution piping to deliver renewable

thermal energy; and
- Exploring and implementing other leading-edge technologies to accelerate our transition.

Benefits of District Energy and a History of Fuel Switching

District energy systems are agnostic to fuel sources and have a long history of adaptation. The steam generated and delivered to customers through the district energy network in Philadelphia is simply a means of moving energy around, similar to electricity. Like the electric grid, over the years, Vicinity has evolved as new, cleaner fuel sources and technologies have become commercially available. The company's predecessors started burning coal in boilers to generate steam and eventually migrated to oil, then natural gas, and finally to CHP and biofuels. This fuel flexibility makes district energy a unique and powerful tool to reduce harmful emissions, especially for existing buildings. Any deployment of new environmentally friendly fuels or emission reduction technologies in a district energy system can be done at scale and benefit the entirety of the building stock served and the community. Vicinity is the national leader in the next major shift of technological innovation for district energy which is unfolding now. In 2021, Vicinity introduced biogenic fuels into its fuel mix, eliminating its remaining reliance (approximately 2% of its fuel use) on #6 fuel oil. Looking ahead through this decade, Vicinity will electrify its steam generation and introduce other technological advancements into its operations, including industrial-scale heat pumps and molten thermal energy storage. Because district energy systems are agnostic to fuel sources and have a history of change, district energy is the most advanced option available today to rapidly reduce emissions for heating and cooling in urban city centers.

The benefits of district energy include:

- Eliminating the need for significant municipal infrastructure investments such as a new electric system; Vicinity's existing infrastructure is ready to serve;
- Eliminating the need for costly building retrofits or upgrades, which is expensive in older cities like Philadelphia;
- Eliminating the need for new emission sources like onsite gas boilers and unregulated new exhaust stacks in city centers and environmental justice (EJ) neighborhoods; and
- Offering proven reliability and resiliency in a climate uncertain future.

In summary, Vicinity Energy shares many of the same goals as the Air Pollution Control Board and wants to ensure that our collective aspirations are achieved for all emission sources.

Vicinity Operations are Subject to Air Pollution Controls Across Numerous Regulations

Federal "MACT" Requirements

Federal regulation 40 CFR 63 (National Emission Standards for Hazardous Air Pollutants, "NESHAP", a.k.a. Maximum Achievable Control Technology, "MACT") establishes technical requirements for numerous categories of industrial sources, to limit the emission of hazardous air pollutants in accordance with best industry standards. Separate MACT standards apply to facilities designated as Major Sources of HAP

emissions (greater than 10 tons per year **("tpy")** of any single HAP and/or greater than 25 tpy of total HAP), vs. those designated as Area Sources of HAP emissions (less than 10 tpy/25 tpy).

The Vicinity facilities in Philadelphia are each designated as Area Sources of HAPs, as natural gas / fuel oil combustion is an inherently low emitting process of HAPs and no ancillary HAP-emitting processes are conducted on site. Each boiler unit is accordingly subject to 40 CFR 63, Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources). This regulation reduces HAP emissions by providing assurance that good combustion practices are maintained by each boiler.

Federal "NSPS" Requirements

Federal regulation 40 CFR 60 (New Source Performance Standards, "NSPS") applies to newly constructed units within a variety of industrial source categories and maintains air quality in accordance with Section 111(b) of the Clean Air Act by ensuring that the best demonstrated emission control technologies are installed as industrial infrastructure is modernized.

Certain units at Vicinity Philadelphia are subject to applicable "NSPS" standards based on their date of installation. The combustion turbine (CT) at Grays Ferry Station is regulated by 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines) and its associated heat recovery steam generator (HRSG) is regulated by 40 CFR 60, Subpart Da (Standards of Performance for Electric Utility Steam Generating Units); these rules set NOx and SO2 emission limits from the CT/HRSG unit. The emergency diesel generator at Edison Station is subject to 40 CFR 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines), which imposes annual operating hour limitations and requires manufacturer certification of various short-term emission limits.

"RACT" Standards / State Regulations

The Reasonably Available Control Technology (RACT) standards were created to satisfy the 2008 National Ambient Air Quality Standards (NAAQS) for ozone and apply statewide in Pennsylvania to any major Nitrogen Oxides (NOx) emitting facility (i.e., emitting over 100 tons per year), which includes the Vicinity Philadelphia facilities. These RACT standards have been currently issued by PADEP in two phases (known as "RACT I" and "RACT II") and have imposed short-term NOx emission limits and/or operating limitations for each of the primary combustion units operated by Vicinity Philadelphia. Additional, more stringent RACT limits ("RACT III") are additionally due to be issued by PADEP in 2022.

In addition to "RACT" standards, Vicinity is also subject to other applicable air quality regulations issued by PADEP or Philadelphia AMS, including 25 PA Code § 129.63 which limits the amount of halogenated solvent used in the facilities' degreasing operations.

Title V Operating Permit / Air Plan Approval

Vicinity's air compliance regulators (PADEP and Philadelphia AMS) require site-specific air plan approvals for each new construction project, for which the applicant must demonstrate that the project meets Best Available Control Technology ("BACT") i.e., is consistent with the latest industry standards with

regard to minimizing air emissions. Recent projects of this type at Vicinity have implemented the use of biofuel and ULSD fuel in selected units, as an alternative to higher-emitting No. 6 fuel oil. These Air Plan Approvals, as well as all applicable State and Federal standards listed above, are consolidated within a federally enforceable Title V Operating Permit issued to each Station.

Vicinity's Specific Comments and Questions on AMR VI Amendments

Vicinity poses the following, which we hope will assist the Air Pollution Control Board in ensuring that the Board's actions have their desired effect:

1). The June 8th revision to Technical Guidelines instructs applicants to add background data from EPA Air ToxScreen data to the facility-wide cancer risk. The July 11th fact sheet shows that EPA's 2017 data indicates all of Philadelphia has an existing risk greater than 1 in a million, and that same fact sheet says that any applicant showing a risk more than 1 in a million must prepare a refined risk assessment and risk mitigation plan. We note that this is not included in the New Jersey regulations and appears to be added to the Philadelphia amendments. Vicinity has been working with Air Management Services (AMS) to modify air permits to allow cleaner fuels and more efficient operation. Vicinity requests that the Air Pollution Control Board clarify if the intent is to require a refined risk assessment and risk mitigation plan from every applicant for a new or renewed air permit based on the background risk reported in EPA's Air ToxScreen.

2). Vicinity has significant concerns regarding the requirements related to the consideration of emissions from the surrounding areas and inclusion of background risk into its permitting process. Such requirements are likely to have negative consequences for air quality and public health, particularly in environmental justice communities. concerns regarding AMS's ability to accurately account for emissions in surrounding areas, first, because there is no definition of "surrounding," leaving the extent unknown and uncertain. Further, Vicinity should not be held responsible for emissions from facilities and entities over which the company has no control. The technical guidelines require the addition of background cancer risks in the calculation of total cancer risks that will be compared to risk thresholds. It is unclear what background risk number should be used in this context. Regardless, in addition to the issues outline in point #1 above, as with our concerns regarding "surrounding area" emissions, Vicinity should not be held responsible for risks associated with emissions beyond its control. The Philadelphia Department of Health should seek to reduce background cancer risks independently from specific facilities that are not contributing to that risk.

3). Vicinity recently won the 2022 Governor's Award for Environmental Excellence for converting all boilers at our Edison Station to use a new biofuel, LR100. LR100 is a cleaner fuel source for boilers than other fuel oil replacement options and will reduce air emissions of nitrogen oxides and particulate matter by 50 percent and sulfur dioxide emissions by nearly 99 percent. LR100 has the lowest carbon footprint of any commercially available biogenic fuel. We have efforts currently underway to convert operations at our Christian Street station to LR100. Vicinity requests that AMS clarify if permitting cleaner fuel conversions will trigger requirements to perform modeling and submit a refined risk assessment and risk mitigation plan.

4). The new LR100 biofuel operates more cleanly, with lower emissions, than the conventional fuels it replaces. As a new commercial fuel, there is limited data available to estimate emission factors. We

request that AMS clarify what emission factors should be used for new commercial fuels.

5). Vicinity provides an environmental benefit to customers by centralizing energy services with clean, efficient operation. Smaller emissions sources, less carefully controlled, less efficient and closer to the places where Philadelphia's citizens live and breathe, appear to be exempt from the new requirements. We believe that the Amendments as proposed could restrict or halt Vicinity's operations, forcing our customers to install potentially higher-polluting energy sources closer to sensitive populations. Vicinity requests that AMS consider whether there is evidence showing that the Amendments would result in an improvement to population-weighted air quality while still meeting the energy needs.

6). Vicinity's multimillion-dollar investments have improved the city's critical energy infrastructure and have increased the resiliency of our robust and agile critical energy infrastructure, ensuring 99.99% reliable energy delivery. During normal operation we use only our most efficient equipment and fuels, but we retain the ability to respond to external emergencies by rapidly ramping up production, and by bringing on additional resources. This allows us to provide electricity during grid emergencies, to provide electricity and thermal energy during weather emergencies, and to continue to deliver energy during fuel supply disruptions. Vicinity requests that AMS include short-term exemptions to the Amendments for periods of weather emergencies, fuel supply disruptions, electric grid instability, or other crisis events.

7). Overall, Vicinity has been working diligently to supply energy to critical facilities such as hospitals, universities, and other customers, while striving to produce this energy efficiently and making the necessary changes to move towards the use of cleaner fuels. However, reliability is paramount and as such, Vicinity has back-up boilers that are available should primary equipment have problems or not able to meet customer needs. These back up units do not run frequently, and it is unclear whether the new regulatory amendments would require that Vicinity model operation of these boilers 24/7, resulting in highly exaggerated emissions. Vicinity requests that the AMS provide additional guidance on how to model these intermittent emissions.

8). Because Vicinity has been working diligently to supply energy to critical facilities such as hospitals, universities, and other customers, we request that will work with facilities or companies to evaluate the options available to comply if they exceed a limit in the proposed regulation.

In conclusion, Vicinity appreciates the thoughtful time and effort that Philadelphia Air Management Services has put into the draft regulations, and their continued effort to protect the health and environment of the citizens of Philadelphia. We respectfully request that AMS consider the items specified in the comments above. Vicinity Energy has a longstanding relationship with Epsilon Associates, Inc. (Epsilon), and relies on Epsilon to support Vicinity's environmental efforts with specialized expertise and experience. Epsilon's comments on the Amendments are attached and are incorporated by reference into Vicinity's comments.

To summarize, Vicinity requests that AMS consider the following:

- Clarify if the intent is to require a refined risk assessment and risk mitigation plan from <u>every</u> applicant for a new or renewed air permit based on the background risk reported

in EPA's Air ToxScreen.

- We ask that they clarify if permitting for cleaner fuel conversions will trigger requirements to perform modeling and submit a refined risk assessment and risk mitigation plan.
- We request that they make available accurate emission factors for new fuels that facilities such as Vicinity's are using to reduce emissions.
- We would like AMS to consider whether there is evidence showing that the Amendments to the draft regulation would result in an improvement to population-weighted air quality while still meeting the energy needs.
- We request that the regulation include short-term exemptions to the Amendments for periods of weather emergencies, fuel supply disruptions, electric grid instability, or other crisis events.
- We request AMS provide additional guidance on how to model the intermittent emissions from back-up or emergency use combustion sources.
- We ask AMS to describe how they plan to work with facilities or companies to evaluate the options available to comply if they exceed a limit in the proposed regulation.

Given the number of questions that these new amendments raise, we also request that AMS delay the implementation of the rule amendments and work with stakeholders to assess whether the rule will have adverse unintended consequences. As stated above, Vicinity provides the lowest carbon, most energy efficient steam and electrical power in Philadelphia. In addition, steam heat/cooling and electrical power are critical to the operation of health care, educational, governmental, transportation and commercial facilities throughout Center City and the University City neighborhoods. A reduction or elimination of Vicinity's steam and power system would result in a proliferation of unpermitted, unregulated heat and power sources, resulting in a significant spike in air pollutants and carbon emissions in populated areas and environmental justice communities. It is vital that Vicinity operations can continue to operate in their current low emission, high efficiency configuration.

Vicinity is committed to providing clean, safe, and reliable energy to the city of Philadelphia and looks forward to working with AMS to implement this program. If you have any questions regarding the comments provided, please contact our EH&S and Green Solutions Manager, Jessica Hartley at Jessica.Hartley@vicinityenergy.us or 610-324-3302.

Field Code Changed

MEMORANDUM

Date: August 8, 2022

To: Vicinity Energy

From: Epsilon Associates, Inc.

Subject: Comments on AMR VI Amendments

Vicinity Energy has a longstanding relationship with Epsilon Associates, Inc. (Epsilon), and relies on Epsilon to support Vicinity's environmental efforts with specialized expertise and experience. Epsilon's below comments on the Amendments are incorporated by reference into Vicinity's comments.

Introduction

Philadelphia's Air Management Services (AMS) is proposing significant changes to its regulation of toxic air contaminants (TAC) in Amendments to the Air Management Regulation VI "Control of Emissions of Toxic Air Contaminants (TACs)". These changes include requiring a comprehensive health risk assessment for any source that emit TACs at levels that exceed specific thresholds. In addition, while the regulation currently includes 99 chemicals, this list is being expanded to 217 chemicals. The Amendments to the regulations are largely borrowed from the New Jersey Department of Environmental Protection air toxic requirements, but with some significant changes that could have unintended consequences for their application in Philadelphia as discussed below.

A health risk assessment appears to be required for facilities that are filing for an Installation Permit or Plan Approval, although as discussed in more detail below, there is conflicting language in the Philadelphia rule amendments on whether this applies to permit renewals in addition to initial filings. A health risk assessment would be required for facilities if emissions of at least one TAC exceeds reporting thresholds that are specified in the Technical Guidelines published along with the amended regulations. The risk assessment requires the use of the AMS Risk Screening Workbook or US EPA AERSCREEN. If risks are above the conservative limit of 1 in a million for cancer or above a hazard quotient (HQ) of 1 for non-cancer risks, then a refined risk assessment will be required. A Title V facility, however, will be required to conduct a more extensive facility-wide risk assessment that includes more sophisticated air modeling. The screening risk assessment worksheet appears to be copied from a similar resource that NJ uses. It is noteworthy that the Philadelphia regulations differ from the NJ regulations in the risk thresholds for facility-wide evaluations. In NJ, a cancer risk of < 10 in a million is considered negligible, whereas in the Philadelphia regulations consider, 1 in a million-cancer risk as negligible. Also, unacceptable risks in NJ are defined at the level of 1000 in a million, whereas in Philadelphia it is at a level of 100 in a million. The Amendments allow for exemptions from a health risk assessment for certain sources. Overall, the Amendments will result in a significant burden for many facilities seeking to apply for or even renew air permits and for the agency that will need to review these analyses, without clear justification for this added level of regulatory oversight above what is already required at the local, state, and federal level.

Epsilon presents below specific comments and questions regarding the need for added regulation, the general process, and specific technical issues.

Comments on Regulatory Process

There are several regulations in place already that serve to reduce the risks from emissions of hazardous air pollutants (HAPs) or air toxics. These include at the federal level, 40 CRF 63 "National Emission Standards for Hazardous Air Pollutants for Source Categories," which incorporates a robust evaluation of health risks under the Risk and Technology Review process. Sources are also regulated at the local level through the air permitting process. These regulations already serve to establish strict emission standards using the best available technology to control emissions or EPA-approved Maximum Achievable Control Technology (MACT standards). These emission standards have resulted in a large decrease in the concentrations of hazardous air pollutants in Philadelphia and around the US. As stated by EPA, " from 1990 to 2017 emissions of air toxics declined by 74 percent, largely driven by federal and state implementation of stationary and mobile source regulations."[1] and this added layer of regulatory oversight is therefore redundant and will likely be overly burdensome for and costly for most facilities, likely without a significant improvement in ambient concentrations beyond what has been achieved and continues to be achieved under current regulations.

Question 1: What is the rationale for these new requirements and how will these new requirements result in added reductions beyond what is already required under federal and state regulations? That is, if a facility is already regulating emissions using the best available technology, or MACT standards and operating under a current permit to limit emissions, what additional mitigation will be required?

In addition to these regulations, US EPA conducts the National Air Toxics Assessment (NATA), now AirToxScreen, to evaluate the cancer and noncancer risks from all sources across the US. These data are meant to assess whether there are increased risks at any particular location and to understand whether any particular source or sources need to be evaluated further. As discussed below, these data are limited by a number of uncertainties and EPA has cautioned the use of these data for regulatory purposes.

Question 2: Has the data from EPA's AirToxScreen been evaluated in detail to identify specific sources of air toxics that should be addressed by added regulation, including the relative contributions from different sources (e.g., mobile sources)?

In addition to the regulations and to the national air toxics assessment conducted by EPA, air monitoring is conducted at many locations across the country to measure the concentrations of select priority HAPs (approximately 30 or less toxics). Data from these monitors support the decrease in concentrations for many HAPs over the years, but also show that concentrations are variable because of the many sources of these HAPs, including mobile sources, that contribute to overall ambient concentrations. One potential consequence of the new Amendments as written is that larger sources of HAPs would not be able to meet the strict risk thresholds for some of the air toxics given the conservative nature of the toxicity values. This may lead to the replacement of larger centralized sources, like Vicinity, with smaller more local

sources that could contribute to similar or worse air quality issues, but at a more localized area (i.e., closer to populations). Given the scarcity of data on these air toxics it will also be difficult to determine if this approach will yield measurable results.

Question 3: How will improvements in air quality and related reductions in cancer and noncancer risks be verified if there is little data, including from monitoring stations across the city?

Actual improvements in health outcomes are tied to overall exposure to contaminants, including indoor air. Studies have shown that a large proportion of exposure is from indoor air (e.g., Tran *et al.* 2020[2]; Gonzalez-Martin *et al.* 2021[3]). Alternative paths to improving air quality-related health could include limits on sources that contribute to poor indoor air conditions, and smaller sources that more directly impact residences.

Question 4: Will AMS consider alternative paths to reach the goal of reducing air toxic health impacts?

Comments on the Modeling Process

As noted previously, the Amendments to AMR VI constitute a significant regulatory burden on facilities that are already bound by stringent federal emissions standards as well as local permits. The number of air toxics increased from the 99 original air toxics to 217, more than doubling the number of air toxics that were originally included in the rulemaking. In addition, AMS has established new reporting thresholds for each of these air contaminants based on highly conservative modeling approaches and toxicity factors. The result is that a large majority of facilities will be required to conduct complex modeling (i.e., a refined risk assessment) at a significant cost, ultimately to customers, to assess whether the facility complies with the strict risk thresholds. In addition, this will require the air modeler to make important assumptions regarding facility emissions because there is limited data for the large majority of the air toxics. These assumptions can impact overall results.

Question 5: Will AMS provide detailed guidance for air modeling including:

1. Emission factors for sources not available in traditional guidance documents (e.g., AP-42)?
2. Guidance on modeling for different fuel mixtures, intermittent operations, and other operating scenarios?
3. Guidance on what receptors will be considered as the maximum impacted receptors (e.g., sensitive receptors?)

Question 6: Other than the exemptions listed in Appendix B of the Technical Guidelines, will AMS consider other exemptions for facility permit renewals and modifications if the facility can show no significant changes to emissions that would contribution to increased health risks without the required refined risk assessment? For example, with a screening level analysis and using scientifically supported emission factors and alternative toxicity values.

Comments on the Risk Assessment Process

Thresholds are based on very conservative modeling assumptions, with many levels of conservatism built in, which added together may be far from actual reasonable scenarios. Some of the conservative assumptions include:

1. Minimal plume rise
2. Operations 24 hours a day and 365 days a year
3. Maximum concentrations based on stack heights that were no more than 40 feet and within 150 feet of the property line
4. Thresholds represent the 98th percentile of candidate thresholds (subset in #3 above)

Table 4 in the support document for threshold development highlights the highly conservative nature of the approach, with suggested maximum annual concentrations of air toxics that are orders of magnitude lower and well below actual measured concentrations at an urban monitor in Philadelphia (see example table).

Air Toxic	**Current AMR VI Recommended Concentration ($\mu g/m^3$)**	**New Max Annual Concentration ($\mu g/m^3$)**	**2021 Measure Ambient Concentration (Annual Average, $\mu g/m^3$)**
Benzene	76.6	0.13	0.67
Formaldehyde	5.9	0.077	3.8
Chromium	0.12	0.00008	0.0024

Given the conservative nature of the reporting thresholds as well as background measured concentrations of air toxics that already exceed the highly conservative risk thresholds, we anticipate that that it will be very difficult for most facilities to meet these strict risk-based limits.

We encourage AMS to fully consider alternative approaches to implementing the Amendments. For example:

Question 7: There is no clear guidance on what emission factors should be used for modeling purposes. If there is no adequate data, can a facility make a case for using reasonable emission factors, or will AMS require measurement of air toxics at the stacks?

Question 8: It is unclear if the risk analysis should be conducted using a facilities potential to emit or whether actuals can be used to evaluate potential risks. AMS should clarify what emissions should be evaluated and if there is flexibility in using realistic emissions. NESHAPS risk and technology reviews are often conducted using actual emissions and not potential to emit or emissions under MACT standards. Will AMS consider evaluating compliance based on actual emissions instead of potential emissions?

Question 9: There are many toxicity values that are dated or not supported by recent scientific information. Can alternative toxicity values be applied if scientifically supported to show that concentrations can achieve risk threshold with alternative toxicity values?

Question 10: It is also unclear what the approach is for assessing the emissions and risks related to the numerous PAHs and dioxins that may be included in emissions factors. An approach that involves summing across PAHs or dioxins and applying the toxicity factor for the most toxic PAH/dioxin will likely result in an exceedance of the risk thresholds. Can AMS clarify the approach for groups of air toxics?

Question 11: Similarly, what is the approach for metal compounds? What metal species were assumed in development of the toxicity factors? Based on a brief review, several factors appear to be based on unrealistically conservative assumptions regarding the toxicity of the metal species. Is there an opportunity to adjust the evaluation when the form of the metal emitted is less toxic than the form assumed when the standard was developed?

Question 12: A risk threshold of 1 in 10^6 is extremely conservative. Traditionally, US EPA has used a range of 1 in 10^6 to 1 in 10^4, with risk mitigation required above the 1 in 10^4 risk, and acceptable if risks are below 1 in 10^4. These criteria are also used to evaluate risks for NESHAPS. As noted in the recent "fact sheet" posted, the risks in Philadelphia are already in the range that would require a risk mitigation plan for most facilities (> 10 in a million). We believe that it would be more consistent with national risk assessments to set a cancer risk threshold of 100 in a million as the threshold for requiring a risk mitigation plan, particularly given the addition of "background cancer risk" to the calculation of total cancer risks and the highly conservative and uncertain nature of the thresholds and toxicity factors used. As noted above, the risk thresholds for facility-wide risks also differ significantly from the NJ regulations, which form the basis for these regulations. Importantly, there is a "gap" in the risk thresholds such that it is unclear what facilities should do if risks fall below 10 in a million. Will AMS consider revising the risk threshold to be more consistent with other programs, including NJ and US EPA?

As noted above, the technical guidelines note that the calculation of "Total Cancer Risk" includes consideration of "Background Cancer Risk" and that the "Background Cancer Risk" be determined based on data from EPA's Air ToxScreen. We note that EPA has cautioned the use of Air ToxScreen data for regulatory purposes. Specifically, EPA[4] notes that:

"AirToxScreen assessments should *not* be used:

- to pinpoint specific risk values in small areas such a census tract;
- to characterize or compare risks at local levels (such as between neighborhoods);
- to characterize or compare risks between states,
- to examine trends from one assessment year to another,
- as the sole basis for risk reduction plans or regulations;
- to control specific sources or pollutants;
- to quantify benefits of reduced air toxics emissions."

We also note that the EPA's Air ToxScreen data is frequently revised and updated, subjecting applicants to uncertainty outside the applicant's control. This is also a deviation from the NJ regulations that do not include background risks in the calculation of facility risks.

Question 13: Based on EPA guidance and to be consistent with NJ regulations, will AMS revise the regulations to remove references to adding "Background cancer risk" to the "Total cancer risk"?

Comments on Permitting Process

The regulations have inconsistent language throughout that make it unclear whether a risk assessment will be required for all permits or approvals or just for initial permits or approvals. Below are some examples of the inconsistent language.

Examples:

> Regulation VI. Plain Language summary: *"establish threshold levels for each toxic air contaminant and require a risk assessment for permit applications for projects that have a potential to emit at least one toxic air contaminant beyond their threshold….A risk assessment would be required for **new and renewal** Title V operating permit applications."* [emphasis added] and
> *"An initial risk screening analysis would be performed for any **new or modified** air pollution source."* [emphasis added]
>
> Regulation VI. Section III. C. (2): *"The Department shall require the application for any permit or license **for any source** of toxic air contaminants affected by this Regulation to submit an assessment of health risk or hazard if the source has the potential to emit at least one toxic air contaminant in an amount above reporting thresholds established by the Department's guidelines."* [emphasis added]
>
> Regulation VI. Exhibit A. Section III. A. *"Note: Risk screening is required for **new or modified** sources where an applicant seeks Installation Permits or Plan Approvals from AMS. Applicants seeking an initial Title V permit should proceed to Section III.D."* [emphasis added]
>
> Regulation VI. Exhibit A. Section III. D. *"A facility-wide health risk assessment is required for all air toxics emitted from all air pollution sources operating as part of a Title V facility. This analysis must be performed anytime an applicant seeks an **initial** Title V permit for a facility where air toxics will be emitted in excess of the reporting threshold."* [emphasis added]

Question 14: Can AMS clarify the regulations? Will AMS consider removing the Amendment's applicability to permit renewals?

Question 17: What is the anticipated impact to permitting backlog?

Question 20: Will AMS consider a streamlined process for environmental improvement projects, or a waiver of the requirements for such projects?

Based on the questions and concerns raised above, we would suggest delaying implementation of the modifications. During this time AMS could establish stakeholder meetings to help both impacted industries and AMS to better understand the impacts of these changes and to better define the process to be followed for the risk assessments and mitigation requirements.

From: Abha Saini
To: Benjamin Hartung
Subject: RE: Comments on Amendments to Air Management Regulation VI Control of Emissions of Toxic Air Contaminants
Date: Friday, September 9, 2022 3:36:57 PM

TO: Benjamin Hartung

FROM: Abha Saini, Chair
The Climate Reality Project: Philadelphia and Southeastern PA Chapter

RE: Comments on Amendments to Air Management Regulation VI Control of Emissions of Toxic Air Contaminants

As a citizen of Pennsylvania, I strongly believe in and value our Commonwealth's Constitutional mandate in Article 1, Section 27: "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come."

Yet, I see that citizens throughout our beautiful state have needed to continuously demand that lawmakers protect those rights. For example, Pennsylvanians overwhelmingly supported Pennsylvania joining the highly successful Regional Greenhouse Gas Initiative (RGGI) on July 1, 2022, when we became its twelfth member state to mandate a cap on pollution emitted from fossil fuel-fired power plants. Yet, even now, some Pennsylvania lawmakers and fossil fuel industry polluters are vociferously and irrationally attempting to impede Pennsylvania's first step into RGGI—in fact, they have prevented us from participating in the September 7, 2022 RGGI carbon dioxide allowance auction, a multimillion-dollar revenue source for participating states. Pennsylvania has now lost out on the tens of millions of dollars we were expected to raise in the auction—money that could have been used towards expanding clean energy, workforce retraining, energy efficiency, reducing electricity bills across the state, and additional programs.

More recently, while the public's right to know about all emissions from permitted facilities is protected in State Code Title 25 Chapter 127, the current Amendments to Air Management Regulation VI Control of Emissions of Toxic Air Contaminants are so nonsensical that I hardly know where to start. I am grateful for the numerous other environmental organizations that have combed through these egregious Amendments and offered comments in alignment with our right to clean air and to know about all emissions from permitted facilities.

I find the only praise-worthy aspect of the Amendments to be the addition of more toxic air contaminants to the list the Health Department currently accepts as contributing to serious health risks.

The remaining provisions seriously weaken the regulation for managing toxic emissions from permitted facilities that generally contain carcinogens and nerve agents like benzene, formaldehyde, lead and asbestos. Science supports the well-established facts that small exposures to these toxins are harmful.

Citizens that live and work in Philadelphia and surrounding regions ought to have the opportunity to comprehend the magnitude of the deleterious consequences to their health if such Amendments were to be implemented.

In fact, it would make more sense for the entire Amendments to be rewritten using public input to ensure that the control of emissions of toxic air contaminants will truly lower toxic exposure and health risks.

Sincerely,

Abha Saini
[redacted]
[redacted]

[redacted]

From: allison saft
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Wednesday, September 7, 2022 12:46:25 AM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
allison saft
[redacted]

From: ASEYOGA
To: Benjamin Hartung
Subject: Prohibition on toxic emissions exceeding permit limits a
Date: Thursday, September 8, 2022 11:41:33 AM

Dear Mr. Hartung:

As a Philadelphia resident, I'm concerned and disappointed that the newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even eliminate the prohibition on toxic emissions exceeding permit limits and cancel the obligation for a polluter to say when the toxic emissions will -or did- begin.

In Amendments to AMR VI "Noticing Section," there are five exemptions. Over 93% of permitted facilities are exempt from the obligation to report their toxic emissions to the Health Department. Only Title V (major) facilities would be obligated, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. Chapter 127 Title 25 Pennsylvania Code legally requires that every permitted air pollution source, whether minor or major, must give public notice of the type and quantity of all air contaminants emitted, with an exception for small gas burning boilers up to 10 million BTU/hr. The City's own Air Management Regulation XIII adopts Chapter 127 Title 25 PA Code.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non-Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) The unreported emissions of most permitted facilities in Philadelphia will apparently disappear from the records that the State receives from the City, and which the State has maintained.

At the former PES Refinery, which is no longer permitted as a major source, Sunoco Evergreen cleanup operations and HILCO, the new owner, would be exempt from reporting highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground, that formed during 150 years of refining petroleum. A synthetic minor source, like SEPTA's gas plant in Nicetown, would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non-methane VOC emissions. If toxins are not listed for a facility, a stack test may not test for toxins. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health

Department, is to complete the assessment. This is backwards due to an obvious conflict of interest. When a risk mitigation plan is to be made, again the polluter develops this plan and even includes their own cost-benefit analysis for the Health Department. But the Health Department should be directly accountable to the public and take full responsibility for calculating health risks and for creating mitigation requirements. The public has the right to be fully informed about health risk assessments and mitigation plans in plenty of time to comment on them, as part of public comments on permit plan approvals. Keeping health risk assessments and mitigation plans "on file" at the Department, not even on the Department's website, does not count as informing the public.

Loopholes for health risk assessments were written into the Technical Guidance Document, Appendix B as exemptions. Of the 4 exemptions, the most striking is for major sized gas burning facilities up to 50 million BTU/hr. 50 million BTU/hr. is almost twice the size of the threshold for a major source. The document states that Air Management Services determined a facility this large would have minimal toxic emissions, but there is no explanation even though one is required by Chapter 127.36(c) Title 25 PA Code: "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All four health risk exemptions should be eliminated.

Scientists and nonscientists can see that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department science used to create new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document is highly questionable. One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxics flagged by California Air Toxics Program as too toxic to even have a threshold. More than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, and only 8 of Philadelphia's are lower than New Jersey's. 93 are the same and some are not comparable because they are not found in both States' lists. Who is using science and math correctly and why are the calculations not explained, as required by Chapter 127.36(c) Title 25 PA Code?

The Technical Guidance document establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. We are already known as the large-city capital for asthma. The Health Department should be aware that most of Philadelphia are designated as environmental justice neighborhoods and that current

and their own published disease and mortality levels correlate to air pollution levels in our city. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for the human beings living here.

The Health Department is funded by the public and has the mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,

Dr. Alston

Experience Àse Yoga, Where Every Breath Counts

Connect with us on:

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https://www.instagram.com/aseyoga/?hl=en
https://www.facebook.com/pages/Dr-Robbin-Alston-The-Art-of-Feeling-Good/474355782606314?ref=tn_tnmn
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www.aseyogastudiotearoom.com

From: André Dhondt
To: Benjamin Hartung
Subject: Air Management Regulation VI
Date: Thursday, September 1, 2022 5:37:15 PM

Hi,

Since I've lived in Philadelphia for much of the last 20 years in various neighborhoods, and I'm a happy resident of East Falls, I'd like you to know that I expect our City to do what's best for our residents' health over the long haul.

Will you please consider toughening the regulations to require reporting of the discharge of toxins that accumulate in the body and/or cause cancer? Will you ensure that it's the Health Department that has the responsibility to verify emissions?

While I know some of the companies releasing these toxins provide jobs--we don't need them. Look how quickly the refinery in South Philly has been shut down and given a new purpose!

While it may be difficult to pass this kind of policy--consider the risks and the toll these toxins pose to the single thing that makes this a city: our people.

Thanks for requesting comments,

André Dhondt
[redacted]

--
D. André Dhondt
[redacted]

From: Anne Bonn
To: Benjamin Hartung
Subject: Air pollution control
Date: Monday, August 8, 2022 12:11:53 PM

The new regulation to control air pollution in Philadelphia is great news if the air quality regulations will actually be strengthened and IMPLEMENTED. I love Center City, but decided to move to the far Northwest because the air quality in town, where I worked for many years, was so terrible, mainly due to the buses. I found it hard to breathe during rush hour. Electric buses should also be considered during these hearings.

Also, having formerly lived in West Philadelphia, in University City, the air quality was often poor due to the wind blowing from the direction of the refineries along the lower Schuylkill. Sometimes coughing, wheezing and eye-tearing resulted from the stuff in the air. It didn't occur often, but when it did, it was bad. I can't imagine what it must be like to live near the airport, but lots of people do. Their health has been jeopardized for years because of the proximity of the refineries.

The good health of the citizens of this city is more important than any industry.
Anne Bonn

From: B Segura
To: Benjamin Hartung
Subject: Air Pollution Hearing Today
Date: Wednesday, August 10, 2022 10:27:37 AM

_____

Please do not allow more pollutants into our air!

Barb Segura [redacted]

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August 9, 2022

Via E-mail (Benjamin.hartung@phila.gov)

Mr. Benjamin Hartung
City of Philadelphia
Department of Health
1101 Market Street
13th Floor
Philadelphia, PA 19107

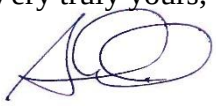
Re: Proposed Amendments to Air Management Regulation VI ("Control of Emissions of Toxic Air Contaminants")

Dear Mr. Hartung:

I have enclosed the comments of Constellation Energy Corporation on the proposed rulemaking identified above. Constellation urges the Department and the Air Pollution Control Board to consider these comments and to make appropriate changes to the proposed regulation before it is adopted in final form. Constellation is eager to provide any additional information requested, and to meet with the Department to discuss any of its comments.

Thank you for your consideration of these matters.

Very truly yours,



Brendan K. Collins

BKC/sts
Enclosure

August 9, 2022

Constellation Energy Corporation's Comments on Proposed Amendments to Air Management Regulation VI ("Control of Emissions of Toxic Air Contaminants") Adopted April 28, 2022

Constellation Energy Corporation ("Constellation") respectfully submits these comments on the Proposed Amendments to Air Management Regulation VI ("Control of Emissions of Toxic Air Contaminants") adopted by the Department of Public Health (the "Department") and Air Pollution Control Board (the "Board") on April 28, 2022 ("the Proposed Rule").

About Constellation

Constellation's generation fleet of nuclear, hydro, wind, natural gas, and solar generation facilities powers more than 20 million homes and businesses, producing 10 percent of the carbon-free energy in the United States. Its diverse fleet of power plants includes four No. 2 oil-fired simple cycle turbine electric generation facilities in Philadelphia, each of which holds a Clean Air Act Title V permit issued by Air Management Services ("AMS"). These four facilities (the "Peakers") operate only when electricity demand is highest and additional generation capacity is needed to meet peak demand, at which point they are essential to the uninterrupted supply of electricity to the grid in Philadelphia Reflecting the limited utilization of the Peakers, their Title V permits limit the annual operations at three of the Peakers to five percent (5%) of their maximum capacity, and at the other to fifteen percent (15%) of its maximum capacity, thus reducing their "potential to emit" air pollution by 95% and 85%, respectively. In fact, however, the Peakers operate at far lower "capacity factors"[1] than the maximums their permits allow. The Peakers have an average annual capacity factor of just 0.17 percent (0.17%) over the past five years and only 0.05 percent (0.05%) in the last two years. They run so infrequently due to their higher dispatch costs relative to other units in the PJM market. The Peakers operate only when needed to provide power to the grid due to market conditions, emergency scenarios or system restoration requirements, or when PJM or AMS require testing to assure that they meet regulatory requirements and will be operational when called upon. The Peakers participate in the PJM Energy, Capacity and Ancillary Markets (*e.g.*, non-synchronized reserve), with three of them serving as system restoration resources. Hence, the Peakers are essential for grid reliability and meeting crisis energy demand, but their ongoing air pollution emissions are minimal.

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[1] The term "capacity factor" describes the percentage of generation capacity that is actually utilized, as compared to the maximum physical capacity of the unit.

Philadelphia's Proposed Rule

The Proposed Rule amends Air Management Regulation VI, Control of Emissions of Toxic Air Contaminants. If finalized, the rule as amended would require applicants for new permits or licenses required by AMS, as well as applicants seeking to modify or renew such permits or licenses, to conduct a facility-wide health risk assessment of emissions of an expanded list of more than 200 designated toxic air contaminants. Additionally, facilities that present more than "negligible" risk levels will be required to conduct further risk assessments and develop risk mitigation plans to reduce health risks. The intent of these amendments is reduce emissions of toxic air contaminants in the City of Philadelphia and particularly, to benefit communities that face disproportionate levels of risk from air pollution.

Constellation recognizes the importance of strong air pollution regulation and has long supported effective federal regulation of air toxics emissions. Constellation understands that AMS has not updated Air Management Regulation VI in 40 years, and that the rule is intended to incorporate the scientific advances that have improved our understanding of the health effects caused by toxic air contaminants. Constellation supports the goal of reducing emissions of toxic air contaminants and hazardous air pollutants in order to reduce the incidence of cancer, respiratory illnesses, and other health care burdens on communities.

Impact of the Proposed Rule on Constellation

In evaluating the Proposed Rule, Constellation conducted dispersion modeling and followed the procedures laid out in the Technical Guidelines attached as Exhibit A to the Proposed Rule to assess any incremental health risk posed by the Peakers.[2] For that analysis, Constellation considered the emissions each plant would produce if it operated at its maximum permitted capacity factor. For every Peaker and every toxic air contaminant listed in the Proposed Rule, the incremental cancer risk was far below one in one million, and the hazard quotient was less than one.

In fact, the highest cumulative pollutant-specific risk modeled for any of the Peakers is just 9 percent of the "one in a million" threshold that the Department uses to identify facilities of "negligible risk." Again, in reality, the actual risk posed by any of the Peakers is orders of magnitude lower than the modeling indicates, as their actual emissions are orders of magnitude lower than the "potential to emit" that was used for the modeling. Even based on maximum permitted emissions of toxic air contaminants, each Peaker should fall into the "negligible risk" category, based on its own emissions. The Peakers, therefore, should be exempt from further obligations imposed by the Proposed Rule on facilities posing greater than negligible risk, such as implementation of risk mitigation plans. Unfortunately, the Proposed Rule and Technical Guidelines, as published, *would* require Constellation to undertake a Risk Mitigation Plan in accordance with Section IV of the Technical Guidelines, though the Peakers each pose negligible risk.

[2] The modeling results are summarized in an August 8, 2022 Memorandum by Tom Wickstrom, ERM, attached hereto as Exhibit A.

Section III.D of the Technical Guidelines, addressing Title V-Facility Wide Risk Assessment, requires Title V permit applicants to undertake Risk Mitigation Plans if the "Total Cancer Risk" is above ten in a million, but "Total Cancer Risk" includes not only the incremental risk posed by the facility under review, but also the background cancer risk for the census tract, which may have little or nothing to do with the facility under review. Technical Guidelines, Section III.D.1, Table 4 & Note. As a result of this requirement, the Peakers would be required to develop Risk Mitigation Plans that could require new pollution controls and physical or operational modifications, notwithstanding their own "negligible" risk. Notably, this requirement is not even in the Proposed Rule itself but in an attachment that is subject to revision without the approval of the Department or the Board (*see* AMR VI Section III.B(1), III.C(2)).

Modifications to the Proposed Rule

For the reasons explained above, Constellation requests that the Proposed Rule be revised to include an exemption for the Plants, for the following reasons:

1. Constellation has demonstrated that the Peakers pose negligible cancer and non-cancer risk, even if operated at their maximum permitted potential to emit. *See* Exhibit A.

2. As demonstrated by historic data over five years, the actual emissions from the Peakers are far below the maximum permitted emissions that produced negligible risk based on the modeling.

3. Because the Peakers operate infrequently and present negligible health risk, any measures that would be imposed on the Peakers by Risk Mitigation Plans would necessarily produce very negligible health benefits.

4. Because the Peakers operate infrequently, the cost of any measures that would be imposed on the Peakers by Risk Mitigation Plans would be disproportionate to the negligible reduction in risk they might produce. Though they operate infrequently, the Peakers are essential to grid reliability and meeting critical energy demand, and should not be required to bear unnecessary costs that do not result in any meaningful reduction in risk.

5. Because the Peakers operate infrequently and present negligible health risk, an exemption would not in any way impair the effectiveness of AMR VI in achieving the objectives of the Proposed Rule, but would support electric grid reliability by avoiding unnecessary regulatory burdens on critical infrastructure.

Exemptions like the one proposed by Constellation are already part of the framework of the Proposed Rule. Certain categories of facilities and activities are exempt from the notice requirements of Section II.C of the Proposed Rule. The Technical Guidelines provide for the exemption of categories of sources from the health risk assessment obligation by the Department, either because the Department has determined that such sources do not emit toxic air contaminants above the relevant thresholds, or that the health risk posed by such

sources is acceptable. *See* Technical Guidelines, Appx. B. These exemptions are ratified in the Proposed Rule, and the Department has apparent authority to add to the list of exemptions in Appendix B to the Technical Guidelines without Board approval.

Accordingly, based on the health risk information submitted in Exhibit A to these comments, as supplemented by any additional information the Department may request, Constellation proposes that the Peakers be added to the list in Appendix B of the Technical Guidelines, either by name or as part of a larger category of peaker plants based on their infrequent operation, minimal emissions and health impact, permit provisions limiting capacity factor and importance for grid reliability.[3] Such a category should be defined to include, for example, only "electric generation plants with a capacity factor of less than 15 percent and facility-specific health risks (that is, exclusive of background risk levels) that are 'negligible' as described in the Technical Guidelines." Constellation is eager to meet with the Department and the Board, if desired, to discuss the contours of an exemption category appropriately tailored to the factors enumerated above.

If the Department requires more time to consider this exemption, then the Proposed Rule should be modified to confer explicit authority on the Department to supplement the list of exempt sources listed in Technical Guidelines, Appx. B in the future without amendment of the regulation or approval of the Board. As noted above, the Department has this authority already, unless such an action would be deemed a "substantial change." To remove any ambiguity, Constellation proposes that the following language be added to the end of Section III.B(1) of the Proposed Rule: "For purposes of this paragraph, the addition of sources or source categories to Appendix B of the Technical Guidelines is not a 'substantial change.'"

Finally, if the Department and the Board do not wish to address the issues raised above through an appropriately tailored exemption, the Technical Guidelines should be modified to exclude the use of background cancer and non-cancer risk levels when determining whether a facility must prepare a Risk Mitigation Plan. Unfortunately, as the Fact Sheet published by the Department demonstrates, nearly all census tracts in Philadelphia have background risk levels that far exceed the risk levels at which the Technical Guidelines would require a Risk Mitigation Plan. *See* Technical Guidelines, pp. 13-17. By requiring facilities to include background risk levels in total risk calculation, the Proposed Rule effectively mandates that all Title V facilities, and all non-Title V facilities that fail to pass preliminary risk screening, not only must submit health risk assessments, but are also subject to Risk Mitigation Plans. This will impose terrific burdens not only on the regulated community but also on the Department, and will produce little if any reduction to health risks in most cases. Failing to differentiate across a wide spectrum of facilities based on actual contributions to air pollution and health risk creates uncertainty for regulated entities and the potential for inconsistent decisions at the permitting stage. To ensure that risk mitigation is required only where beneficial, the Proposed Rule and Technical Guidelines should provide that a facility is not subject to the Risk Mitigation Plan requirements of the Technical Guidelines, or to additional obligations under Section III.C of the Proposed Rule, if its facility-specific health risks (that is, exclusive of background risk levels) are no greater than

[3] Constellation is not aware of other Peakers operated by independent power producers in Philadelphia.

a cancer risk of one in one million and a hazard quotient less than or equal to one for non-cancer risk.

Focusing on facility-specific contributions to health risk would be in line with the overall design of the Technical Guidelines and the procedures described therein. For example, pg. 11 states "An initial risk screening analysis must be performed for any new or modified air pollution source that will emit air toxics in excess of the reporting thresholds provided in Table I in Section I," which implies that the focus is on the facility's own contribution. Similarly, pg. 12 provides that "Applicants must use AERSCREEN to estimate the worst-case, ambient air concentrations of air toxics that will be emitted *from the source*, and then calculate the attendant cancer risk and non-cancer hazard quotients" (emphasis added). In addition, the Fact Sheet published on July 1 does not mention the use of background pollution concentrations, instead focusing on "'facilities' that cause TAC pollution . . . above established TAC emission thresholds."[4] Focusing on the facility's own contribution, rather than including background levels of pollution that would not be addressed by measures installed by a facility with negligible emissions, would also align Philadelphia's regulation with New Jersey's air toxics program. AMS specifically noted that it took into consideration the HAPs listed by NJDEP. *See* Health Risk Assessment Technical Support Document, Sec. I.[5] The Technical Support Document explicitly states that "The methodology used here to establish the reporting thresholds is very similar to that used by the New Jersey Department of Environmental Protection to determine HAPs reporting thresholds in the New Jersey air toxics regulation. Understandably the threshold values selected for Philadelphia are quite similar to those in the New [J]ersey regulation." *See* Section II.2.3.5. However, Philadelphia's methodology will actually conflict with the New Jersey regulation if the final rule includes background in determining whether a Risk Mitigation Plan is required. New Jersey's program does not incorporate background risks when assessing facility risk. *See* NJDEP Technical Manual 1003, Guidance on Preparing a Risk Assessment for Air Contaminant Emissions, Sec. 1.4 (providing that New Jersey risk assessments "do not consider health risks from other nearby sources or existing levels of toxics in the ambient air").

Adopting these changes would increase regulatory certainty while reducing administrative burden. The Technical Guidelines provide that the Risk Mitigation Plan must include "a cost benefit analysis of any adopted health risk mitigation measures." Hence, the Department will need to evaluate whether any risk mitigation measures are appropriate during each facility's permit renewal. It has already been established for the Peakers that their permitted emissions are minor, their actual emissions are even more minimal, and their health risk contribution is negligible. We are happy to provide further data in support of this point. Hence, the benefit of any of the mitigation measures listed in Section IV would be negligible as well. In contrast, the costs could be significant, given the potential measures to be considered in Risk Mitigation Plans. When it is already evident that it would not be sensible to require mitigation measures for these facilities, the Department should not leave

[4] https://www.phila.gov/media/20220711111346/AMR-VI-Fact-Sheet_7.1.2022.pdf

[5] Exhibit B to AMS Reg VI__AMR VI Risk Assessment Technical Support Document._.pdf (phila-records.com)

Constellation with the regulatory uncertainty of negotiating this at every permit renewal. Instead, small modifications to the final regulation can provide clarity and transparency.

Thank you for your consideration of these comments.

EXHIBIT A

ERM

75 Valley Stream Parkway
Suite 200
Malvern, PA
19355

Telephone: +1 484.913.0300
Fax: +1 484.412.6739

www.erm.com

To: Constellation Power

From: Tom Wickstrom - ERM

Date: August 9, 2022

Subject: Air Quality Modeling Results

Introduction and Background

ERM has conducted air quality modeling analyses for four (4) power station facilities in the City of Philadelphia on behalf of Constellation Power. Table 1 of this memorandum presents the facilities and emissions units that were evaluated. The air quality modeling analyses were conducted for the purpose of evaluating inhalation risk from potential air emissions of toxic air contaminants from these facilities.

The modeling analyses each represent a "refined risk assessment", as described in the Philadelphia Air Management Services (AMS) Technical Guidelines[1]. The following is a summary of the air quality modeling methodologies that were utilized in this assessment:

- Use of the United States Environmental Protection Agency's (USEPA) regulatory near-field air quality dispersion model AERMOD;
- Use of five years of meteorological data (2016-2020) processed by the Pennsylvania Department of Environmental Protection (PADEP) with the AERMET meteorological pre-processor, for Philadelphia Internal Airport (PHL);
- Facility-specific building downwash processed using the Building Profile Input Program (BPIP);
- Use of a Cartesian network of receptors extending to 5 km from each facility, with receptor and source elevation determined with the AERMAP terrain processor using National Elevation Dataset (NED) data;
- The effect of the urban nighttime boundary layer was conservatively not included in these analyses, despite the location of each facility in an urban environment; and
- Potential emissions from each source were determined based on USEPA AP-42 emissions factors for oil fired combustion turbines (AP-42 Chapter 3.1, Table 3.1-3).

Results and Summary

Table 2 through Table 5 of this memorandum present the results of the modeling analyses for each facility. The modeled concentrations from each facility are all below the threshold proposed as "negligible" by Philadelphia AMS in the Technical Guidelines. All modeled results of each toxic air contaminant are less than the relevant Reference Concentrations (RfC), with the calculated "hazard

[1] "Technical Guidelines for Air Management Regulation VI", Air Management Services/Department of Public Health/City of Philadelphia, dated April 28, 2022

quotient" being less than one for each toxic air contaminant. The hazard quotient is determined by the ratio of the modeled concentration to the RfC. In addition, the calculated risk values, expressed as theoretical cancer incidences per million individuals, are all less than 1 in 1 million. A level of 1 in 1 million is proposed as the negligible risk threshold in the AMS Technical Guidelines.

These analyses demonstrate that the potential emissions of these toxic air contaminants from these facilities would be expected to result in negligible inhalation risk to the public. It should be noted that the total background risk for the census tracts where these facilities are located, and similarly across the entire City of Philadelphia, exceed the threshold considered by Philadelphia AMS to be negligible. These background risks as found in the USEPA's AirToxScreen[2] (on a per toxic air contaminant basis) are also presented in Tables 2 through 5 for reference. In addition to these individual air toxic contaminant-specific background risks, AirToxScreen also provides an overall background risk. The typical total background risk in the City of Philadelphia is 30-40 per million according to AirToxScreen. However, the results of the refined risk assessment performed for each facility demonstrate that the emissions from each facility make up an insignificant portion of the overall cancer risk in these areas, and that any risk associated with the operation of these facilities should be considered negligible.

[2] https://www.epa.gov/AirToxScreen/2017-airtoxscreen-mapping-tool

Table 1 – Constellation Power – Modeled Emissions Units

Facility	Source ID	Source Description	Manufacturer	Model No / Serial No	Capacity (MMBtu/hr)	Fuel / Material
Schuylkill	CU07	Combustion Turbine #10	Pratt Whitney	FT4A-8	233	No. 2 Oil/ Kerosene
Schuylkill	CU08	Combustion Turbine #11	Pratt Whitney	FT4A-9	284	No. 2 Oil/ Kerosene
Delaware	CU05	Combustion Turbine #9	Pratt Whitney	FT4A-9	284	No. 2 Oil/ Kerosene
Delaware	CU06	Combustion Turbine #10	Pratt Whitney	FT4A-8	233	No. 2 Oil/ Kerosene
Delaware	CU07	Combustion Turbine #11	Pratt Whitney	FT4A-8	233	No. 2 Oil/ Kerosene
Delaware	CU08	Combustion Turbine #12	Pratt Whitney	FT4A-8	233	No. 2 Oil/ Kerosene
Southwark	CU05	Combustion Turbine #3	Pratt Whitney	FT4A-8	233	No. 2 Oil/ Kerosene
Southwark	CU06	Combustion Turbine #4	Pratt Whitney	FT4A-8	233	No. 2 Oil/ Kerosene
Southwark	CU07	Combustion Turbine #5	Pratt Whitney	FT4A-8	233	No. 2 Oil/ Kerosene
Southwark	CU08	Combustion Turbine #6	Pratt Whitney	FT4A-8	233	No. 2 Oil/ Kerosene
Richmond	CU37	Combustion Turbine #92	GE	GE Frame 7B	838	No. 2 Oil/ Kerosene
Richmond	CU38	Combustion Turbine #91	GE	GE Frame 7B	838	No. 2 Oil/ Kerosene

Table 2 – Toxic Air Contaminant Refined Modeling Results – Delaware Station

			Non-Cancer Risk (Negligible Risk: Hazard Quotient of 1)		Cancer Risk (Negligible Risk: 1 in 1 million)		
Pollutant	**Averaging Period**	**AERMOD Modeled Concentration ($\mu g/m^3$)**	**PAMS Long Term RfC ($\mu g/m^3$)**	**Modeled Hazard Quotient**	**PAMS Long Term URF $(\mu g/m^3)^{-1}$**	**Modeled Facility Cancer Risk (per million)**	**AirToxScreen Background Risk (per million)**
1,3-Butadiene	Annual	4.35E-06	2	2.17E-06	3.00E-05	1.30E-04	1.55
Arsenic	Annual	2.99E-06	0.015	1.99E-04	4.30E-03	1.29E-02	0.00
Benzene	Annual	1.49E-05	3	4.98E-06	7.80E-06	1.17E-04	4.19
Beryllium	Annual	8.42E-08	0.02	4.21E-06	2.40E-03	2.02E-04	0.00
Cadmium	Annual	1.30E-06	0.02	6.52E-05	4.20E-03	5.48E-03	0.00
Formaldehyde	Annual	7.61E-05	9	8.45E-06	1.30E-05	9.89E-04	17.18
Lead	Annual	3.80E-06	--	--	1.20E-05	4.56E-05	0.01
Manganese	Annual	2.15E-04	0.05	4.29E-03	--	--	0.01
Naphthalene	Annual	9.51E-06	3	3.17E-06	3.40E-05	3.23E-04	0.00
Nickel	Annual	1.25E-06	0.014	8.93E-05	2.40E-04	3.00E-04	2.44
PAH/POM	Annual	1.09E-05	--	--	1.10E-03	1.20E-02	0.00

Pollutant	**Averaging Period**	**AERMOD Modeled Concentration ($\mu g/m^3$)**	**PAMS Short Term RfC ($\mu g/m^3$)**	**Modeled Hazard Quotient**
Benzene	1 hour	1.00E-01	27	3.72E-03

Table 3 – Toxic Air Contaminant Refined Modeling Results – Richmond Station

			Non-Cancer Risk (Negligible Risk: Hazard Quotient of 1)		Cancer Risk (Negligible Risk: 1 in 1 million)		
Pollutant	**Averaging Period**	**AERMOD Modeled Concentration ($\mu g/m^3$)**	**PAMS Long Term RfC ($\mu g/m^3$)**	**Modeled Hazard Quotient**	**PAMS Long Term URF $(\mu g/m^3)^{-1}$**	**Modeled Facility Cancer Risk (per million)**	**AirToxScreen Background Risk (per million)**
1,3-Butadiene	Annual	1.86E-05	2	9.28E-06	3.00E-05	5.57E-04	1.36
Arsenic	Annual	1.28E-05	0.015	8.50E-04	4.30E-03	5.49E-02	0.00
Benzene	Annual	6.38E-05	3	2.13E-05	7.80E-06	4.98E-04	3.76
Beryllium	Annual	3.60E-07	0.02	1.80E-05	2.40E-03	8.63E-04	0.00
Cadmium	Annual	5.57E-06	0.02	2.78E-04	4.20E-03	2.34E-02	0.00
Formaldehyde	Annual	3.25E-04	9	3.61E-05	1.30E-05	4.22E-03	17.00
Lead	Annual	1.62E-05	--	--	1.20E-05	1.95E-04	0.00
Manganese	Annual	9.16E-04	0.05	1.83E-02	--	--	0.00
Naphthalene	Annual	4.06E-05	3	1.35E-05	3.40E-05	1.38E-03	0.00
Nickel	Annual	5.33E-06	0.014	3.81E-04	2.40E-04	1.28E-03	1.99
PAH/POM	Annual	4.64E-05	--	--	1.10E-03	5.10E-02	0.00

Pollutant	**Averaging Period**	**AERMOD Modeled Concentration ($\mu g/m^3$)**	**PAMS Short Term RfC ($\mu g/m^3$)**	**Modeled Hazard Quotient**
Benzene	1 hour	5.76E-02	27	2.13E-03

Table 4 – Toxic Air Contaminant Refined Modeling Results – Schuylkill Station

			Non-Cancer Risk (Negligible Risk: Hazard Quotient of 1)		Cancer Risk (Negligible Risk: 1 in 1 million)		
Pollutant	**Averaging Period**	**AERMOD Modeled Concentration ($\mu g/m^3$)**	**PAMS Long Term RfC ($\mu g/m^3$)**	**Modeled Hazard Quotient**	**PAMS Long Term URF $(\mu g/m^3)^{-1}$**	**Modeled Facility Cancer Risk (per million)**	**AirToxScreen Background Risk (per million)**
1,3-Butadiene	Annual	2.44E-05	2	1.22E-05	3.00E-05	7.31E-04	1.30
Arsenic	Annual	1.68E-05	0.015	1.12E-03	4.30E-03	7.21E-02	0.00
Benzene	Annual	8.38E-05	3	2.79E-05	7.80E-06	6.54E-04	3.89
Beryllium	Annual	4.72E-07	0.02	2.36E-05	2.40E-03	1.13E-03	0.00
Cadmium	Annual	7.31E-06	0.02	3.66E-04	4.20E-03	3.07E-02	0.00
Formaldehyde	Annual	4.27E-04	9	4.74E-05	1.30E-05	5.55E-03	16.79
Lead	Annual	2.13E-05	--	--	1.20E-05	2.56E-04	0.01
Manganese	Annual	1.20E-03	0.05	2.41E-02	--	--	0.01
Naphthalene	Annual	5.33E-05	3	1.78E-05	3.40E-05	1.81E-03	0.00
Nickel	Annual	7.01E-06	0.014	5.01E-04	2.40E-04	1.68E-03	2.25
PAH/POM	Annual	6.09E-05	--	--	1.10E-03	6.70E-02	0.00

Pollutant	**Averaging Period**	**AERMOD Modeled Concentration ($\mu g/m^3$)**	**PAMS Short Term RfC ($\mu g/m^3$)**	**Modeled Hazard Quotient**
Benzene	1 hour	1.21E-01	27	4.50E-03

Table 5 – Toxic Air Contaminant Refined Modeling Results – Southwark Station

			Non-Cancer Risk (Negligible Risk: Hazard Quotient of 1)		Cancer Risk (Negligible Risk: 1 in 1 million)		
Pollutant	**Averaging Period**	**AERMOD Modeled Concentration ($\mu g/m^3$)**	**PAMS Long Term RfC ($\mu g/m^3$)**	**Modeled Hazard Quotient**	**PAMS Long Term URF $(\mu g/m^3)^{-1}$**	**Modeled Facility Cancer Risk (per million)**	**AirToxScreen Background Risk (per million)**
1,3-Butadiene	Annual	3.07E-05	2	1.54E-05	3.00E-05	9.21E-04	0.97
Arsenic	Annual	2.11E-05	0.015	1.41E-03	4.30E-03	9.08E-02	0.00
Benzene	Annual	1.06E-04	3	3.52E-05	7.80E-06	8.23E-04	2.71
Beryllium	Annual	5.95E-07	0.02	2.97E-05	2.40E-03	1.43E-03	0.00
Cadmium	Annual	9.21E-06	0.02	4.61E-04	4.20E-03	3.87E-02	0.00
Formaldehyde	Annual	5.37E-04	9	5.97E-05	1.30E-05	6.98E-03	16.14
Lead	Annual	2.69E-05	--	--	1.20E-05	3.22E-04	0.01
Manganese	Annual	1.52E-03	0.05	3.03E-02	--	--	0.01
Naphthalene	Annual	6.72E-05	3	2.24E-05	3.40E-05	2.28E-03	0.00
Nickel	Annual	8.83E-06	0.014	6.30E-04	2.40E-04	2.12E-03	1.45
PAH/POM	Annual	7.67E-05	--	--	1.10E-03	8.44E-02	0.00

Pollutant	**Averaging Period**	**AERMOD Modeled Concentration ($\mu g/m^3$)**	**PAMS Short Term RfC ($\mu g/m^3$)**	**Modeled Hazard Quotient**
Benzene	1 hour	6.85E-02	27	2.54E-03

From: Charles Best
To: Benjamin Hartung
Subject: Public Comments on AMR VI Amendments
Date: Wednesday, September 7, 2022 8:39:35 PM

My name is Charles A. Best. I attended the 8/10/22 public hearing on the subject topic, by phone [redacted]. The subject revisions are shameful. They seem meant to benefit the major polluters,
rather than the majority of citizens in the City. Those citizens in the highest pollution areas of the city, the least affluent and least influential areas, will be especially harmed by these revisions. It makes me wonder if the major polluters themselves
had a hand in writing these revisions. Instead of making the air healthier, the revisions have loosened the restrictions. For example: Page 11, Section III, Conditions of Approval: How does removing the paragraph beginning, "(3) In approving an installation
permit...", improve our air?? Put it back in!! Technical Guidelines, p.23, Appendix B, ... Risk Analysis: All emission sources must require a risk analysis, including the boilers and heaters covered in (iv). Remove paragraph (iv) exemption. How were the thresholds
in pp. 3-10 of Technical Guidlines arrived at? I don't trust them. Some transparency, please. We want healthier air, not dirtier air, in the Philadelphia area. Why the exemptions of pp. 8-9, Section II, Sub Section C? Remove these exemptions! P. 7, Section
II, A. Notice of Emissions (4): Change the phrase, "..., and may require..." to "..., and will require...". P. 10, Section III, C. Conditions of Approval (2): The applicants shall submit an assessment of the health risk of all contaminants regardless of whether
they exceed the threshold. The health department shall then make the final assessment of the health impact of the facility.

To save the lives and health of residents, please fix AMR VI, and then have another public review meeting.

Thank you

From: cheryl haeberlein
To: Benjamin Hartung
Subject: Air regulation amendment
Date: Saturday, September 3, 2022 9:28:09 AM

Sir, I can not fathom that anyone would consider these amendments. There are already so many harmful pollutants in our air, why would you ease requirements designed to try to keep us safe?

I love Philadelphia, I really do. I have lived here all of my life. Please work to improve the quality life of its citizens.

Thank you.

Cheryl Haeberlein

From: Christina Rosan
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Friday, September 9, 2022 11:12:57 AM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Christina Rosan
[redacted]

CMAA
·COCOA MERCHANTS' ASSOCIATION OF AMERICA·

August 9, 2022

Via Electronic Mail (Benjamin.Hartung@phila.gov)
Benjamin Hartung
Public Policy Advisor
City of Philadelphia, Department of Public Health

Re: Comments on Proposed Amendments to Air Management Regulation VI Control of Emissions of Toxic Air Contaminants

Dear Mr. Hartung:

The Cocoa Merchants' Association of America, Inc. ("CMAA")[1] is submitting this letter to comment on the proposed amendments to Air Management Regulation VI Control of Emissions of Toxic Air Contaminants ("AMR VI") by the City of Philadelphia, Department of Public Health, through the Air Pollution Control Board ("APCB"), posted on the Department of Public Records' website on May 2, 2022 (the "Proposed Air Toxics Rule" or "Proposed Rule").

CMAA provides both general comments to the entire Proposed Air Toxics Rule and comments to specific provisions that impose additional burdens on or otherwise restrict the use of fumigants. Overall, CMAA asserts that the Proposed Air Toxics Rule, if finalized, would be an extreme shift from existing requirements, and as applied to certain fumigation operations is overly stringent and unnecessary. While CMAA is generally supportive of establishing reasonable requirements that are necessary to protect human health and the environment and are based on scientific and other technical information, the Proposed Rule does not accomplish this purpose. Instead, the Proposed Rule would substantially expand the list of air pollutants regulated as toxic air contaminants to include sulfuryl fluoride, among others, which is not identified as a hazardous air pollutant ("HAP") or criteria pollutant by the Environmental Protection Agency ("EPA") and is not a volatile organic compound ("VOC"). No evaluation of scientific studies or other technical information is offered to support the inclusion of sulfuryl fluoride or other fumigants as toxic air contaminants. In deciding to regulate fumigants as toxic air contaminants, the APCB has not evaluated critical information, such as the existing requirements imposed on the use of fumigants under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), that adequately address any potential risks from fumigation operations, and the adverse effect that the Proposed Air Toxics Rule will have on key import operations and other business sectors in the City of Philadelphia. Finally, among other

[1] The CMAA represents the interests of companies involved in all aspects of the cocoa supply chain, including traders, importers, processors, manufacturers of products from cocoa, and the many service providers involved in the process ranging from shippers and ports to transport companies and warehouse facilities. All of these entities will be negatively impacted by the Proposed Air Toxics Rule.

deficiencies, the Department of Public Health's notice on the Department of Records' website is also missing critical information to allow for meaningful public comment on the proposed amendments.

For the reasons outlined in this letter, CMAA requests that, if the APCB moves forward with the Proposed Air Toxics Rule, fumigation operations conducted subject to FIFRA requirements should be exempted pending appropriate analyses demonstrating that there is a need for additional regulations or requirements for these already federally regulated activities.

I. GENERAL COMMENTS

A. The Definition of Toxic Air Contaminant in Section I of Proposed AMR VI, which includes the Substances listed in the Appendix to the Regulation, Improperly includes Fumigants as Toxic Air Contaminants Without the Necessary Analysis.

1. FIFRA-regulated fumigation operations should be exempt from AMR VI. EPA has a robust risk assessment process under FIFRA to evaluate data on pesticides to determine whether a pesticide will have an adverse impact on human health or the environment prior to it being approved.[2] Under FIFRA, the manufacturers of fumigants must register their product with EPA's Office of Pesticide Program.[3] The registration process includes, in relevant part, submitting information pertaining to product chemistry, product performance studies, toxicological studies on the hazards to humans, domestic animals and non-target organisms, pesticide drift evaluations, and environmental fate studies.[4] The toxicological studies include, but are not limited to, acute and subchronic inhalation studies, as well as chronic studies.[5] The results of the toxicological studies form the basis for the development of a label, which is actually a multi-paged document that includes enforceable requirements that EPA determines are necessary for the protection of human health and the environment.[6]

Requirements include, but are not limited to, fumigant management practices, application requirements, and monitoring protocols. Most importantly, EPA's pesticide review under FIFRA also dictates buffer zones and clearance levels that are acceptable for unprotected workers and the surrounding community, both during fumigation and once the fumigation is complete.[7] The buffer zones reflect the distance from the fumigation and its release points that are protective of both workers and the people in the surrounding community who would not be wearing any personal protective equipment. The clearance levels reflect the concentration at which EPA has determined that a fumigated product or area can be released, and other workers

[2] *See* EPA's Overview of Risk Assessment in the Pesticide Program at https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/overview-risk-assessment-pesticide-program.
[3] 7 U.S.C. § 136a(a).
[4] *See* 40 C.F.R. Parts 152 and 158.
[5] *See* 40 C.F.R. § 158.500.
[6] *See* 40 C.F.R. § 156.10.
[7] *See* 40 C.F.R. § 156.10(i).

and visitors can re-occupy a structure. Both of these factors reflect consideration of the level of fumigant at which there is no unacceptable risk to bystanders. Under FIFRA, the applicators of fumigants are legally required to comply with the restrictions on the label approved by EPA.[8]

EPA's review and approval of pesticide labels are already designed to address the purported risk that the APCB seeks to eliminate through its proposed amendments of AMR VI. Accordingly, the CMAA requests that the APCB exempt fumigation operations performed in accordance with FIFRA from the Proposed Air Toxics Rule.[9]

2. The APCB does not provide legal or technical support for the Proposed Air Toxics Rule's inclusion of sulfuryl fluoride as a toxic air contaminant.
Section 3-201(c) of the Air Management Code requires the APCB to evaluate the following factors before revising the list of toxic air contaminants: (1) the risk of immediate acute or subacute harm to human health, at concentrations likely to be encountered in the community; (2) the proven carcinogenicity through epidemiological studies in both human and animal populations; (3) the suspected carcinogenicity as shown in human epidemiological studies or in laboratory studies of animals and other experimental media; (4) the mutagenicity and teratogenicity as proven through human, animal, and experimental media; (5) the bioaccumulative effects in humans and the environment; (6) the findings of the Environmental Protection Agency, the Occupational Safety and Health Administration or other such agencies regarding toxicity; and (7) the extent to which the substance is likely to be found in Philadelphia industries.

The APCB provided no explanation in the Proposed Rule and its associated exhibits for the inclusion of fumigants as toxic air contaminants.[10] Instead, the APCB appears to have adopted the list of air pollutants identified in New Jersey Department of Environmental Protection's ("NJDEP") Risk Screening Worksheet, including sulfuryl fluoride, which is

[8] *See* 7 U.S.C. § 136j(a)(2)(G) (making it unlawful to use any registered pesticide in a manner inconsistent with its labeling).
[9] If APCB subsequently performs the evaluations required by the Air Management Code (discussed further in the next section) and determines it is appropriate to further regulate these fumigation operations, it can do so after such a demonstration has been made.
[10] The Technical Guidelines for AMR VI ("Technical Guidelines") and Health Risk Assessment Support Document for AMR VI Amendment ("Technical Support Document") state that the APCB seeks to increase the number of toxic air contaminants from 99 to 217 to "incorporate nearly all [188] pollutants that are classified as [HAPs] by [EPA] pursuant to Section 112 of the Clean Air Act, and… additional air pollutants that have been determined to have adverse health effects by Air Management Service (AMS), taking into consideration the hazardous air pollutants listed by the New Jersey Department of Environmental Protection." Yet, the APCB has not conducted an analysis supporting its inclusion of any fumigants as a new toxic air contaminant that is not a HAP, such as sulfuryl fluoride.

currently proposed to be included in NJDEP's Worksheet.[11] The APCB's adoption of the air pollutants identified in the NJDEP's Risk Screening Worksheet as air toxics, without an independent analysis of scientific data to determine whether such identification is necessary and appropriate in Philadelphia, is contrary to Section 3-201(c) of the Air Management Code.

Additionally, Air Management Services ("AMS") has been delegated by EPA and the Pennsylvania Department of Environmental Protection ("PADEP") to perform a number of functions under the Clean Air Act and Air Pollution Control Act. Arbitrarily adopting a regulatory approach from another state without evaluating how the approach fits into or will impact its own delegated obligations is improper. As discussed in Comment I.C., below, it is not clear how AMS will fulfill its delegated obligations and review the extensive amount of information required to appropriately implement the Proposed Rule. AMS currently regulates fumigant emissions through its existing regulatory framework by requiring a license, installation permit, and/or operating permit to fumigate.[12] AMS' current permit requirements are sufficient to address any potential risk caused by fumigant emissions and the APCB has not provided any information that suggests that additional requirements are necessary.

The APCB should perform the analyses required by Section 3-201(c) of the Air Management Code or must cite to studies or scientific papers that demonstrate there are risks posed by emissions of fumigants that are not already addressed by EPA's robust registration process, the use of fumigants in accordance with EPA's FIFRA label, and AMS' existing regulations. Until the proper analyses are performed, the APCB's inclusion of fumigants as toxic air contaminants is premature. Thus, as noted above, the CMAA requests that the APCB exempt fumigation operations performed in accordance with FIFRA from the Proposed Air Toxics Rule. Moreover, until the APCB has performed the evaluations required by the Air Management Code, sulfuryl fluoride (and any other fumigants that are not HAPs, VOCs, or criteria pollutants) should be removed from the list of toxic air contaminants.

3. Subjecting sulfuryl fluoride to risk assessment is premature. Sulfuryl fluoride is a fumigant that has been used at the direction of the federal government for over fifteen years to eradicate infestations of pests present in cocoa beans.[13] Sulfuryl fluoride is not a HAP, VOC, criteria pollutant, or a pollutant that is otherwise regulated under the federal Clean

[11] *See* NJDEP's Risk Screening Tools at https://www.state nj.us/dep/aqpp/risk html. NJDEP is currently proposing to amend its risk screening worksheet to include sulfuryl fluoride. CMAA submitted comments to NJDEP objecting to both the inclusion of sulfuryl fluoride and the reference concentration identified in the draft revision to the worksheet for several reasons, including NJDEP's failure to support its conclusions with appropriate scientific information.

[12] *See* AMR II and XIII.

[13] The Food Safety Modernization Act ("FSMA") requires, among other things, owners and operators of facilities to identify and evaluate known or reasonably foreseeable hazards, implement preventive controls, monitor the effectiveness of controls, and implement corrective actions if those preventive controls are ineffective. 21 U.S.C. § 350g. While not specifically required to fumigate by the Food and Drug Administration ("FDA"), companies commonly utilize fumigation to meet these FDA requirements and the hazard of pest infestation.

Air Act or the Pennsylvania Air Pollution Control Act. Thus, the APCB is not under any federal or state statutory mandate to require controls or emission reductions of sulfuryl fluoride.

EPA has approved the use of sulfuryl fluoride as a fumigant under FIFRA.[14] Consistent with procedures discussed in Comment I.A.1, above, EPA evaluated information pertaining to the use of sulfuryl fluoride as part of its registration process, including toxicological information, and developed a label that includes requirements that EPA determined would protect human health and the environment.[15] Obligations imposed on the application of sulfuryl fluoride in fumigations include, but are not limited to, fumigant management practices, application requirements, monitoring protocols and clearance levels that are expressly intended to address the risks associated with sulfuryl fluoride use. Sulfuryl fluoride is applied only by certified applicators in accordance with these requirements.

EPA's review of fumigants under FIFRA does not end at the point of its approval of the registration of a fumigant. EPA is required under FIFRA to periodically review and re-register all of the registered pesticide products to ensure that the labels are based on the best available science.[16] EPA is currently in the process of re-registering the use of sulfuryl fluoride as a pesticide.[17] EPA's re-registration of sulfuryl fluoride includes, but is not limited to, the completion of a robust risk assessment through the evaluation of extensive toxicological information. In April 2021, EPA released the draft results of its risk assessment.[18] In its review of toxicological studies and data, EPA has determined that the database of toxicological information is complete, meaning that EPA has all of the studies that it needs to fully evaluate risk.[19] Additionally, the California Environmental Protection Agency ("CalEPA"), through the Department of Pesticide Regulation ("DPR"), is also continuing to evaluate acute sulfuryl fluoride air concentrations resulting from structural fumigations using a specifically developed modeling system, AERFUM (Air Exposure of Risk model for Fumigants) and validating such data against sulfuryl fluoride monitoring data.[20] The APCB should wait until reviews by EPA and CalEPA are complete before determining whether sulfuryl fluoride should be identified as a toxic air contaminant and establishing a reference concentration to be used in risk assessments for sulfuryl fluoride. Further, the APCB should conduct its own studies and technical analyses to

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[14] *See* EPA's approved label for ProFume at https://www3.epa.gov/pesticides/chem_search/ppls/001015-00079-20151231.pdf.
[15] *See id.*; *see also* 7 U.S.C. § 136a(c)(5) (stating that "[t]he Administrator shall register a pesticide if the Administrator determines that, when considered with any restrictions imposed [on its use]… it will not generally cause unreasonable adverse effects on the environment.")
[16] *See* 7 U.S.C. § 136a(g).
[17] *See* EPA's Registration Review Schedules, http://www.epa.gov/pesticide-reevaluation/registration-review-schedules, indicating that pesticides currently undergoing registration, including sulfuryl fluoride, are planned to be completed by October 1, 2022.
[18] *See* EPA's Sulfuryl Fluoride-Draft Risk Assessment in Support of Registration Review Part I: Occupational and Residential Exposure," April 30, 2021 ("Draft Risk Assessment").
[19] *See id.*, Section 4.4.1.
[20] *See* DPR's *Sulfuryl Fluoride Structural Fumigation Mitigation Scoping Document*, January 22, 2021.

substantiate any conclusion that such standards are appropriate for Philadelphia, as required by Air Management Code Section 3-201(c).

The APCB has not shown that the use of sulfuryl fluoride in accordance with its approved label poses an actual risk to communities. CMAA requests that sulfuryl fluoride be removed from the list of toxic air contaminants until such time as the reviews by EPA and CalEPA are complete and the APCB performs the required analyses under the Air Management Code to demonstrate that further regulation is appropriate.

4. The APCB has not evaluated the Proposed Rule's impacts to industry sectors. The APCB's economic analysis does not include the impact to industry sectors that will be affected by this rulemaking, such as the cocoa, warehouse and port industry sectors, including the increased costs and the potential loss of business and jobs.[21] There are an estimated 58,181 jobs (both direct and indirect) in Pennsylvania associated with the manufacture of chocolate and other confectionary products, resulting in approximately $5.9 billion in economic output and approximately $1.3 billion in Federal, state and local taxes.[22] While the estimate does not distinguish statistics for the City of Philadelphia, the economic impact, both in terms of the number of jobs provided and monetary output, is substantial given that the Port of Philadelphia is a primary entry point for cocoa beans into the U.S. market. The increased costs associated with complying with the Proposed Rule will impact the cost of importing and storing cocoa beans, resulting in potential loss of business for ports, cocoa warehouse facilities, chocolate processors and manufacturers, and of other direct and indirect jobs associated with these industry sectors and businesses.[23] The APCB has not considered the wide-ranging repercussions that the Proposed Rule will have on the cocoa industry for the reasons set forth in this comment letter.

Facilities must have flexibility to perform fumigations consistent with federal requirements, not only to comply with their statutory obligations under FIFRA and the FSMA, but also to ensure that pest infestations are adequately addressed. If the Proposed Rule is adopted with sulfuryl fluoride identified as a toxic air contaminant, this rulemaking could result in some business leaving Philadelphia, as businesses will potentially be unable to adequately

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[21] On July 28, 2022, AMS posted Frequently Asked Questions for Air Management Regulation VI Amendment (the "FAQ") in which AMS purports to evaluate the economic impacts of the Proposed Rule. AMS' analysis does not include any impacts to industry sectors, other than the additional costs associated with permit application submittals and costs to install control technology.

[22] *See* https://candyusa.com/powerofsweet/ (National Confectioners Association's analysis of the jobs and economic impact associated with the manufacture of chocolate and other confectionery products in Pennsylvania using John Dunham & Associates 2021, New York, NY *210 Analytics, Global Trade Atlas).

[23] AMS' economic analysis incorrectly assumes that facilities can use its Risk Screening Workbook as opposed to performing more refined and expensive air dispersion modeling and that a control technology is reasonably available. Use of the Risk Screening Workbook will not be available for most warehouses and buildings where fumigations occur because of the conditions specified for when the Workbook can be used (e.g., that emissions must be from a stack at least 15 feet high). Additionally, the APCB has not identified any reasonably available control technology for sulfuryl fluoride, which is not a HAP or volatile organic compound. Therefore, the actual costs associated with complying with the Proposed Rule are likely much higher than AMS estimates.

address potential infestations and/or will incur unnecessary costs that can be avoided by using other ports or moving storage of cocoa beans outside the City limits.

B. The APCB has not provided for sufficient public input for its inclusion of fumigants in the Proposed Rule.

The APCB has not provided the basic information to allow for meaningful public comment, including, but not limited to, the technical information that it relied on to identify air pollutants, such as fumigants, as toxic air contaminants, and the benchmarks that facilities will need to meet to obtain a permit.[24] The notice that the Department of Public Health posted on the Department of Records' website is missing critical information, such as the complete Risk Screening Workbook. Importantly, the version of the Risk Screening Workbook attached as Exhibit C to the Proposed Rule does not contain the reference concentrations and unit risk factors that AMS expects affected entities to use to demonstrate acceptable risk. While CMAA requested and was able to obtain a draft Risk Screening Workbook from AMS, most affected facilities, including CMAA members, do not have a copy of the complete Risk Screening Workbook. Also, because a complete Risk Screening Workbook was not provided with the Proposed Rule, it is unclear whether the version that CMAA obtained is the final version. Without a complete understanding of the basic inputs in the risk assessment analysis and the technical support for identifying air pollutants as toxic air contaminants that the APCB intends to regulate, it is impossible for affected entities to evaluate the full extent of the impact of the Proposed Rule and submit meaningful public comments. Thus, the Proposed Rule puts the regulated community, including CMAA members, in the position of not knowing what limits will be applied in the proposed permitting process, but being susceptible to denial of permits if a modeled result exceeds an unknown reference concentration. At a minimum, the APCB should publish a complete draft Risk Screening Workbook for review and comment prior to finalizing the Proposed Rule.

Additionally, the Proposed Rule has been released through a cumbersome public participation process. The information published on the Department of Records' website on May 2, 2022 contained no guidance for how to request a public hearing, whether written comments could be submitted and considered, and the process by which to do so. Without the efforts of a small group of interested parties that requested a public hearing, the affected regulated community would likely be unaware of the Proposed Rule and would therefore miss their opportunity to comment. Certain facilities and warehouses that periodically require

[24] There are also inconsistencies within the Proposed Rule such that it is unclear exactly which contaminants the APCB intends to regulate. To our knowledge, there are at least 3 different versions of the list of toxic air contaminants (the list included with the Appendix to AMR VI and the Technical Guidelines, and the lists provided with two different versions of the Risk Screening Workbook) and each specify different numbers of toxic air contaminants. In addition to identifying a different number of toxic air contaminants, the lists of specific toxic air contaminants also contradict. Notably, approximately 55 air pollutants that are identified in the Appendix and Technical Guidelines as toxic air contaminants are not included in the Risk Screening Workbook and approximately 75 air pollutants that are identified in the Risk Screening Workbook are not identified as toxic air contaminants in the Appendix and Technical Guidelines.

fumigation may still not be aware of the Proposed Rule and its potential impact on their ability to address possible infestations. The APCB should correct the deficiencies in the public notice and provide additional time for public comment.

C. If the Proposed Rule is Finalized, AMS Will Not Be Able to Fulfill Its Delegated Obligations to EPA and PADEP.

AMS is delegated authority to implement the Commonwealth of Pennsylvania's obligations under Title V of the Clean Air Act and the Air Pollution Control Act for sources located within the City of Philadelphia.[25] As recently as 2019, EPA expressed concern that AMS' manpower to fulfill its delegated Title V obligations were "minimally sufficient."[26] EPA was particularly concerned that, out of thirty-two Title V facilities located in Philadelphia as of November 2018, eighteen Title V permits were not timely renewed prior to their expiration, and two facilities that had applied for renewal had Title V permits that were issued more than ten years ago.[27] Under the Proposed Rule, AMS staff (which as of 2018 consisted of six individuals) would not only have to perform all of their existing functions – i.e., review preconstruction permit applications for major and minor sources, renewal applications for major and minor sources, license applications for more than a thousand smaller sources, dust control permits, requests for determination, stack test protocols and results, as well as conduct conformance checks to ensure operation of sources consistent with permit requirements – but also review all of the risk assessments performed by any facility that exceeds the reporting thresholds. It is not clear how AMS staff can perform the significant additional obligations imposed under the Proposed Rule and still timely and effectively perform their delegated duties.

II. COMMENTS ON SPECIFIC PROVISIONS OF THE AMENDMENTS TO AMR VI

To the extent that the APCB moves forward with the Proposed Air Toxics Rule and does not exempt fumigation operations from the Proposed Rule as requested, CMAA is also providing comments on specific provisions of the Proposed Rule and its exhibits, which are incorporated into the Proposed Rule by reference. These specific comments focus not only on generally applicable provisions, but also on the APCB's identification of arbitrary and unsupported standards for sulfuryl fluoride that will negatively impact the import of cocoa beans and the manufacture of cocoa products. The concerns identified in these comments further support why the proposed amendments to AMR VI are premature and require further consideration by the APCB.

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[25] *See* 61 Fed. Reg. 39597 (July 30, 1996) (EPA approving the AMS Title V permit program as part of Pennsylvania's Title V operating permit program); Agreement for Implementation of the Philadelphia County Air Pollution Control Program, 2010, at http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/Regulations%20and%20Clean%20Air%20Plans/plans/plans/lead/Att_2_Agreement_AMS.pdf.

[26] *See* EPA's Title V Evaluation Report of AMS, dated May 19, 2019 at https://www.epa.gov/sites/default/files/2019-06/documents/ams_title_v_evaluation_report.pdf.

[27] *Id.* at 4.

A. Section III.B.(1) of the Proposed Rule Incorporates Reference Concentrations, Reporting Thresholds, and Risk Assessment Procedures that are Inappropriate and Unreasonable.

1. Draft Risk Screening Workbook – The proposed reference concentrations for sulfuryl fluoride are unduly stringent. The Technical Support Document, incorporated by reference in the Proposed Rule, states that unit risk factors and reference concentrations were developed using the latest updates of EPA's Integrated Risk Information System, CalEPA's Toxicity Criteria Databases, and Agency for Toxic Substances Disease Registry's "Minimal Risk Levels for Hazardous Substances."[28] These databases do not identify unit risk factors or reference concentrations for sulfuryl fluoride.[29] The draft Risk Screening Workbook that CMAA obtained directly from AMS identifies, without explanation or analysis, a short-term non-carcinogenic reference concentration of 1,700 µg/m^3 and a long-term non-carcinogenic reference concentration of 60 µg/m^3 (collectively, the "Proposed Reference Concentrations").[30] The draft Risk Screening Workbook does not specify the time periods that AMS is proposing to use for the Proposed Reference Concentrations. The CMAA believes, but cannot confirm, that the Proposed Reference Concentrations are based on reference concentrations that were originally proposed to be used by NJDEP in 2019, and were later rescinded.[31] The Proposed Reference Concentrations are not supported by and are more stringent than the reference concentrations used by California and EPA, and is even more stringent than the short-term reference concentration currently being proposed by NJDEP, which is similarly flawed and contrary to the prevailing science.[32] In addition, the APCB is inappropriately proposing to impose a unit risk factor for carcinogenic risk even though sulfuryl fluoride is not a carcinogen.[33]

In establishing the proposed reference concentrations, the APCB has failed to consider the buffer distances and clearance requirements established under FIFRA that are specifically developed to address fumigation scenarios. To the extent that the APCB determines, after proper

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[28] *See* Technical Support Document, Section 2.3.2 at 10.
[29] *See* EPA's Integrated Risk Information System assessments at https://iris.epa.gov/AtoZ/?list_type=alpha, the Agency for Toxic Substances and Disease Registry's Minimal Risk Levels, at https://wwwn.cdc.gov/TSP/MRLS/mrlsListing.aspx, and CalEPA's Toxicity Criteria Database data at https://data.ca.gov/dataset/toxicity-criteria-database/resource/0d417a2b-6559-4725-820f-add7c57a8bc9.
[30] Because the APCB has not included its proposed Risk Screening Workbook as part of the public notice, it is unclear whether the APCB intends to use the Proposed Reference Concentrations or some other values.
[31] *See* NJDEP's Fact Sheet, dated May 8, 2019, at https://www.state.nj.us/dep/aqpp/archived/RSWorksheet/Risk%20Screening%20Worksheet%20Fact%20Sheet.pdf.
[32] Both CalEPA (through DPR and the Office of Environmental Health Hazard Assessment) and EPA have performed risk assessments and developed reference concentrations related to sulfuryl fluoride's use as a pesticide. The chief difference between CalEPA's and EPA's analyses is the uncertainty factor used for completeness in the toxicological database. As EPA noted in its draft risk assessment, dated April 30, 2021, the toxicological database for sulfuryl fluoride is complete, and therefore the uncertainty factor should be reduced. *See* the Draft Risk Assessment. NJDEP is proposing to use a short-term reference concentration of 3,128 µg/m^3 (which is almost double what is being proposed by APCB). Like the Proposed Reference Concentrations, NJDEP's proposed short-term reference concentration is not based on current prevailing science.
[33] *See* compound summary for sulfuryl fluoride at https://pubchem ncbi nlm nih.gov/compound/17607.

analysis, that it is appropriate to identify sulfuryl fluoride as a toxic air contaminant, the APCB should identify reference concentrations that are based on current science, taking into consideration the robust requirements already established by EPA under FIFRA.

2. Draft Risk Screening Workbook - The unduly stringent Proposed Reference Concentrations for sulfuryl fluoride will be difficult to meet and risk either endangering food safety or forcing cocoa beans to be imported and/or stored outside of Philadelphia. If the unnecessarily stringent Proposed Reference Concentrations are adopted for sulfuryl fluoride, warehouses and other fumigation sites will need to expend considerable resources in order to demonstrate negligible risk, which may include, but are not limited to, the adoption of air pollution controls, adding stacks to increase dispersion, and/or changes in operations.[34] The additional costs associated with implementing some or all of these measures will cost thousands of dollars and are unnecessary given the safety precautions that are already in place pursuant to the pesticide label.

Additionally, the compounded effect of AMS requiring that a worst-case fumigation scenario be used to model the potential risk, regardless of the frequency in which the fumigation scenario occurs, and proposing an unnecessarily stringent reference concentration results in an unrealistic portrayal of risk and therefore increases the likelihood of facilities having to expend considerable resources. The APCB's approach to risk assessments is more stringent than EPA's approach to conducting residual risk assessments for the National Emission Standards for Hazardous Air Pollutants ("NESHAP"). Most fumigation scenarios involve fumigating a certain number of containers, or a room or area of a building, as opposed to building-wide fumigations. Building-wide fumigations occur infrequently, from once every few years to a few times per year. Because of the Proposed Rule's overly conservative approach, as described in the Technical Support Document, facilities may need to redesign their entire facility and install costly upgrades for a fumigation activity that is infrequent and heavily controlled. Such investment is hard to justify. A number of warehouses will likely elect not to expend such sums when it is unclear how often fumigation will be necessary, which will result in less warehouses being able to be used for the storage of cocoa beans.

Furthermore, certified applicators must be able to apply the proper dosage of sulfuryl fluoride, as prescribed by the pesticide label, to ensure adequate treatment for food safety. Certified applicators must be able to adjust the dosage of sulfuryl fluoride depending on the pest species and life stages of the pest being treated, the temperature at the facility, the exposure time (i.e., the number of hours the target pest is exposed to the fumigant), and how well an area holds a fumigant from loss.[35] Without adequate flexibility, certified applicators cannot effectively treat food commodities for pests. The APCB's use of the Proposed Reference Concentrations interferes with facilities' abilities to effectively treat pests to ensure food safety in accordance with the FSMA and the approved pesticide label, subjects facilities to unnecessary and

[34] *See* Technical Guidelines at 19, identifying potential risk mitigation measures.
[35] *See* Applicator's Manual for ProFume, at 52-53.

potentially significant costs, and will force cocoa beans and other food commodities to be imported and/or stored outside of Philadelphia or in other states.

3. Technical Guidelines – The reporting threshold for sulfuryl fluoride is arbitrary and not supported by science. AMS has proposed a 2,000 pound per year reporting threshold for sulfuryl fluoride.[36] AMS purports to have determined the reporting thresholds for all proposed toxic air contaminants by performing air dispersion modeling using a number of potential scenarios to determine the level at which the cancer and non-cancer risks are less than or equal to 1 in a million and 1, respectively.[37] However, despite the results of the modeling, AMS proposed to arbitrarily cap the maximum reporting threshold for all toxic air pollutants, including sulfuryl fluoride, at 2,000 pounds per year even if the results of modeling would support a higher value.[38] The reporting threshold for sulfuryl fluoride is not based on any demonstrated risk that is present from fumigations. If fumigation operations and sulfuryl fluoride are not exempted for the reasons stated in this comment letter, at a minimum AMS should calculate an appropriate reporting threshold for sulfuryl fluoride based on modeling instead of imposing an arbitrary 2,000 pounds per year reporting threshold. In calculating an appropriate reporting threshold, AMS should use a reference concentration that is supported by current science.

4. Technical Guidelines – The risk assessment process must provide AMS flexibility to consider realistic, rather than worst-case inputs and results. The APCB is proposing to require applicants to measure risk based on worst-case inputs occurring simultaneously, i.e., worst-case weather and operating conditions, the highest potential emission rates (which may be well above actual emissions), and the assumption that the nearest receptor is located at the property line.[39] Instead of using worst-case scenarios, as the APCB proposes, permit applicants should be allowed to utilize actual emission rates and reasonable worst case meteorological conditions (i.e. 99th percentile) in evaluating risk, consistent with EPA's approach in conducting residual risk assessments for NESHAP.[40] The use of worst-case conditions for fumigations would result in a substantial misrepresentation of risk. Additionally, because the Risk Screening Workbook may only be used for air pollution sources that emit air toxics through exhaust stacks that are at least 15 feet high, most warehouses and other facilities where fumigations activities occur will be forced to expend considerable resources to perform more refined air modeling. At a minimum, the APCB should grant AMS discretion to apply less stringent modeling conditions, as appropriate, based on the location, duration and frequency of fumigation activities and the likelihood of receptors being present at nearby off-site locations.

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[36] *See* Technical Guidelines, Table 1 at 8.
[37] *See* Technical Support Document at 11.
[38] *See id.*
[39] *See* Technical Guidelines at 11.
[40] *See, e.g.,* 87 Fed. Reg. 1616 (Jan. 11, 2022) (using worst actual allowable emission rates and reasonable worst case meteorological conditions to evaluate potential risk and develop Maximum Achievable Control Technology allowable emission limits in its Primary Copper Smelting Residual Risk and Technology Review).

B. The APCB Should Clarify and Further Explain AMS' Authority Under Section III of the Proposed Rule.

1. Proposed AMR VI, Section III.B.(1) – The APCB should clarify that substantive changes made to the Technical Guidelines and Technical Support Document require public notice and comment. Section 8-407 of the Philadelphia Home Rule Charter requires the APCB to provide public notice of and an opportunity to comment on all proposed changes to existing regulations. Section III.B.(1) of the Proposed Rule incorporates by reference the Technical Guidelines published as Exhibit A to the proposal and the Technical Support Document published as Exhibit B, thus purporting to make these documents enforceable parts of the regulation. CMAA requests confirmation from the APCB that substantial changes to the Technical Guidelines and Technical Support Document, which require the APCB's approval, will be subject to public notice and comment.[41] Additionally, the APCB should clarify what changes it considers to be "substantial changes". At a minimum, any changes, other than those that correct typographical errors, that would impact the identification of air toxics, reporting thresholds, reference concentrations, what constitutes an undue health hazard, or the manner in which affected entities would conduct risk assessments, should be considered substantial changes that require the APCB's prior approval.

2. Proposed AMR VI, Sections III.B.(3) and C.(3) – The Proposed Rule grants AMS unlimited authority to deny a permit or license application, or to determine what conditions should be imposed in permits or licenses. The Proposed Rule requires AMS to approve or deny an initial or renewal permit or license application, or impose conditions on its approval of a renewal application, based on any information AMS considers to be relevant.[42] The APCB has provided no limitations on the types of information that AMS can consider or the conditions that AMS can impose on existing facilities.[43] Existing facilities that have operated for decades, such as warehouses and other buildings in which fumigations operations occur, could suddenly be faced with new conditions on operations that they will be unable to predict or plan for. Because the Proposed Rule, as currently drafted, does not limit AMS' authority, AMS could impose more onerous conditions in a permit than would otherwise be required and that are not proportional to the level of risk posed by any individual facility to compensate for risks posed by other facilities. As a result of the ambiguous language in Section C.3. of AMR VI, including its lack of specific standards for determining when permits will be approved or denied, businesses

[41] *See* Proposed AMR VI, Section II.B.(1), stating that "[t]he Department is hereby authorized to update the [Technical Guidelines and Technical Support Document] as necessary, provided that substantial changes are submitted to the [APCB] for approval."

[42] *See* Section III.C.(3) of the Proposed Rule, stating "[t]he Department's determination shall be based upon an evaluation of the quantity, concentration and duration of the emission relative to the latest available information regarding health effects, guidelines or standards associated with the toxic air contaminant, or upon such other information the Department considers relevant to the evaluation." (Emphasis added.)

[43] *See* Section III.C.(3)(a) of the Proposed Rule, stating that the Department shall "[a]pprove a permit or license application, or license renewal, as submitted; renew said permit or license, subject to adoption of work practices, emission controls, emission limits, process changes, and other conditions necessary to address the health hazard posed by the toxic air contaminants... ." (Emphasis added.)

in the City of Philadelphia will no longer have certainty as to whether they can obtain a permit even if they seemingly meet the applicable requirements. In the case of fumigation operations, all aspects of the use of fumigants, including sulfuryl fluoride, are regulated by EPA under FIFRA. Any conditions imposed by AMS could impact the ability of fumigant applicators to comply with EPA's approved pesticide label, directly contradict EPA requirements, and, more broadly, could impact the ability of warehouses from adequately addressing pest infestations. The APCB should not grant AMS unfettered discretion regarding when permits should be approved or denied, or to determine what conditions are appropriate.

In addition, Section III.B. of the Proposed Rule directs AMS to "review the existing air toxics concentrations surrounding the emissions source at issue prior to approving or disapproving a plan approval or Title V operating permit."[44] As drafted, it is unclear whether non-Title V facilities would be subject to the type of cumulative risk assessment that this rule language suggests, or if this directive is limited to Title V facilities only, as is suggested by the Technical Guidelines. The APCB has provided no guidance to AMS as to how it should conduct its review and the effect that this review may have on AMS' issuance of a permit. If the APCB intends to grant AMS the authority to render permitting decisions based on existing ambient concentrations of air contaminants outside the property boundary, such authority exceeds AMS' delegated authority under the Title V Program and the Air Pollution Control Act and would be entirely inappropriate.[45] CMAA requests that the APCB remove Section III.B.(3) from the Proposed Rule.

III. CONCLUSION

CMAA hopes that these comments convince the APCB that the inclusion of fumigation operations in the Proposed Rule is premature, or, at a minimum, that substantive changes to the Proposed Rule are necessary. CMAA strongly encourages the APCB to exempt fumigation operations from the Proposed Rule until it can collect the necessary scientific and technical information to demonstrate that additional regulations or requirements are necessary for these federally regulated operations. In addition, sulfuryl fluoride and other fumigants that are not HAPs, VOCs, or criteria pollutants should be removed from the list of toxic air contaminants until the APCB can demonstrate there is scientific support for their inclusion. The CMAA appreciates the opportunity to provide these comments to the APCB on the Proposed Rule.

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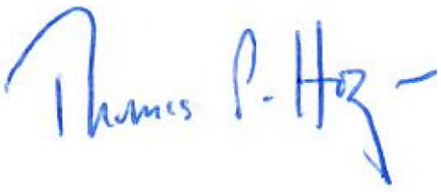
[44] *See* Section III.B.(3) of the Proposed Rule (emphasis added).

[45] The 1990 amendments to the Clean Air Act expressly provide that the Prevention of Significant Deterioration requirements, including the modeling of air emissions, do not apply to hazardous air pollutants. *See* 42 U.S.C. § 7412(b)(6). Title V of the Clean Air Act and its implementing regulations do not grant states and local air pollution control agencies the authority to consider and/or deny a permit based on a cumulative impact analysis. *See* 42 U.S.C. § 7661a; 40 C.F.R. § 70.7. While states and local air pollution control agencies can establish additional or more stringent requirements than those contained within Part 70, EPA must approve program submittals. 40 C.F.R. § 70.1(c). Notably, EPA has not approved AMR VI as part of Pennsylvania's State Implementation Plan. *See* 40 C.F.R. § 52.2020(c) (identifying the regulatory provisions that have been incorporated into Pennsylvania's State Implementation Plan).

Sincerely,



Thomas P. Hogan, Chairman
CMAA Board of Directors

From: Courtney Bragg
To: Benjamin Hartung
Cc: David Payne
Subject: Concerns re: AMR VI
Date: Wednesday, September 7, 2022 12:08:32 PM

Mr. Hartung,

As a new Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even eliminate the prohibition on toxic emissions exceeding permit limits and cancel the obligation for a polluter to say when the toxic emissions will -or did- begin.

In Amendments to AMR VI "Noticing Section," there are five exemptions. Over 93% of permitted facilities are exempt from the obligation to report their toxic emissions to the Health Department. Only Title V (major) facilities would be obligated, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. Chapter 127 Title 25 Pennsylvania Code legally requires that every permitted air pollution source, whether minor or major, must give public notice of the type and quantity of all air contaminants emitted, with an exception for small gas burning boilers up to 10 million BTU/hr. The City's own Air Management Regulation XIII adopts Chapter 127 Title 25 PA Code.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) The unreported emissions of most permitted facilities in Philadelphia will apparently disappear from the records that the State receives from the City, and which the State has maintained.

At the former PES Refinery, which is no longer permitted as a major source, Sunoco Evergreen cleanup operations and HILCO, the new owner, would be exempt from reporting highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground, that formed during 150 years of refining petroleum. A synthetic minor source, like SEPTA's gas plant in Nicetown, would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. If toxics are not listed for a facility, a stack test may not test for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, is to complete the assessment. This is backwards due to an obvious conflict of interest. When a risk mitigation plan is to be made, again the polluter

develops this plan and even includes their own cost-benefit analysis for the Health Department. But the Health Department should be directly accountable to the public and take full responsibility for calculating health risks and for creating mitigation requirements. The public has the right to be fully informed about health risk assessments and mitigation plans in plenty of time to comment on them, as part of public comments on permit plan approvals. Keeping health risk assessments and mitigation plans "on file" at the Department, not even on the Department's website, does not count as informing the public.

Loopholes for health risk assessments were written into the Technical Guidance Document, Appendix B as exemptions. Of the 4 exemptions, the most striking is for major sized gas burning facilities up to 50 million BTU/hr. 50 million BTU/hr. is almost twice the size of the threshold for a major source. The document states that Air Management Services determined a facility this large would have minimal toxic emissions, but there is no explanation even though one is required by Chapter 127.36(c) Title 25 PA Code: "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All four health risk exemptions should be eliminated.

Scientists and nonscientists can see that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department science used to create new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document is highly questionable and . One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxics flagged by California Air Toxics Program as too toxic to even have a threshold. More than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, and only 8 of Philadelphia's are lower than New Jersey's. 93 are the same and some are not comparable because they are not found in both State's lists. Who is using science and math correctly and why are the calculations not explained, as required by Chapter 127.36(c) Title 25 PA Code?

The Technical Guidance document establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. We are already known as the large-city capital for asthma. The Health Department should be aware that most of Philadelphia is designated as environmental justice neighborhoods and that current and their own published disease and mortality levels correlate to air pollution levels in our city. If the Health Department is ready to double the cancer rate in Philadelphia, it

indicates no empathy for the human beings living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,

Courtney Bragg
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Courtney Bragg
[redacted]

From: Junk
To: Benjamin Hartung
Subject: Amendments to Air Management Regulation V
Date: Thursday, September 8, 2022 11:09:28 AM

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even eliminate the prohibition on toxic emissions exceeding permit limits and cancel the obligation for a polluter to say when the toxic emissions will -or did- begin.

In Amendments to AMR VI "Noticing Section," there are five exemptions. Over 93% of permitted facilities are exempt from the obligation to report their toxic emissions to the Health Department. Only Title V (major) facilities would be obligated, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. Chapter 127 Title 25 Pennsylvania Code legally requires that every permitted air pollution source, whether minor or major, must give public notice of the type and quantity of all air contaminants emitted, with an exception for small gas burning boilers up to 10 million BTU/hr. The City's own Air Management Regulation XIII adopts Chapter 127 Title 25 PA Code.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) The unreported emissions of most permitted facilities in Philadelphia will apparently disappear from the records that the State receives from the City, and which the State has maintained.

At the former PES Refinery, which is no longer permitted as a major source, Sunoco Evergreen cleanup operations and HILCO, the new owner, would be exempt from reporting highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground, that formed during 150 years of refining petroleum. A synthetic minor source, like SEPTA's gas

plant in Nicetown, would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. If toxics are not listed for a facility, a stack test may not test for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, is to complete the assessment. This is backwards due to an obvious conflict of interest. When a risk mitigation plan is to be made, again the polluter develops this plan and even includes their own cost-benefit analysis for the Health Department. But the Health Department should be directly accountable to the public and take full responsibility for calculating health risks and for creating mitigation requirements. The public has the right to be fully informed about health risk assessments and mitigation plans in plenty of time to comment on them, as part of public comments on permit plan approvals. Keeping health risk assessments and mitigation plans "on file" at the Department, not even on the Department's website, does not count as informing the public.

Loopholes for health risk assessments were written into the Technical Guidance Document, Appendix B as exemptions. Of the 4 exemptions, the most striking is for major sized gas burning facilities up to 50 million BTU/hr. 50 million BTU/hr. is almost twice the size of the threshold for a major source. The document states that Air Management Services determined a facility this large would have minimal toxic emissions, but there is no explanation even though one is required by Chapter 127.36(c) Title 25 PA Code: "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All four health risk exemptions should be eliminated.

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The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,

Dakota

Benjamin Hartung

From: David Schogel [redacted]
Sent: Friday, August 5, 2022 9:50 PM
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants

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Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect their community. AMS should explicitly provided for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
David Schogel

[redacted]

From: Deb James
To: Benjamin Hartung
Subject: Amendments to AMR VI
Date: Wednesday, September 7, 2022 12:42:32 PM

Dear Mr. Hartung,

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even eliminate the prohibition on toxic emissions exceeding permit limits and cancel the obligation for a polluter to say when the toxic emissions will -or did- begin.

In Amendments to AMR VI "Noticing Section," there are five exemptions. Over 93% of permitted facilities are exempt from the obligation to report their toxic emissions to the Health Department. Only Title V (major) facilities would be obligated, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. Chapter 127 Title 25 Pennsylvania Code legally requires that every permitted air pollution source, whether minor or major, must give public notice of the type and quantity of all air contaminants emitted, with an exception for small gas burning boilers up to 10 million BTU/hr. The City's own Air Management Regulation XIII adopts Chapter 127 Title 25 PA Code.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) The unreported emissions of most permitted facilities in Philadelphia will apparently disappear from the records that the State receives from the City, and which the State has maintained.

At the former PES Refinery, which is no longer permitted as a major source, Sunoco Evergreen cleanup operations and HILCO, the new owner, would be exempt from reporting highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground, that formed during 150 years of refining petroleum. A synthetic minor source, like SEPTA's gas plant in Nicetown, would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. If toxics are not listed for a facility, a stack test may not test for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, is to complete the assessment. This is backwards due to an obvious conflict of interest. When a risk mitigation plan is to be made, again the polluter develops this plan and even includes their own cost-benefit analysis for the Health

Department. But the Health Department should be directly accountable to the public and take full responsibility for calculating health risks and for creating mitigation requirements. The public has the right to be fully informed about health risk assessments and mitigation plans in plenty of time to comment on them, as part of public comments on permit plan approvals. Keeping health risk assessments and mitigation plans "on file" at the Department, not even on the Department's website, does not count as informing the public.

Loopholes for health risk assessments were written into the Technical Guidance Document, Appendix B as exemptions. Of the 4 exemptions, the most striking is for major sized gas burning facilities up to 50 million BTU/hr. 50 million BTU/hr. is almost twice the size of the threshold for a major source. The document states that Air Management Services determined a facility this large would have minimal toxic emissions, but there is no explanation even though one is required by Chapter 127.36(c) Title 25 PA Code: "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All four health risk exemptions should be eliminated.

Scientists and nonscientists can see that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department science used to create new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document is highly questionable and . One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxics flagged by California Air Toxics Program as too toxic to even have a threshold. More than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, and only 8 of Philadelphia's are lower than New Jersey's. 93 are the same and some are not comparable because they are not found in both State's lists. Who is using science and math correctly and why are the calculations not explained, as required by Chapter 127.36(c) Title 25 PA Code?

The Technical Guidance document establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. **We are already known as the large-city capital for asthma. The Health Department should be aware that most of Philadelphia is designated as environmental justice neighborhoods and that current and their own published disease and mortality levels correlate to air pollution levels in our city**. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for the human beings living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,
Deborah James

From: Douglas Kingsbury
To: Benjamin Hartung
Subject: Amendments to Air Management Regulation VI
Date: Thursday, September 8, 2022 10:01:06 AM

Comment to the Philadelphia Health Department,

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even remove the prohibition on toxic emissions exceeding permit limits and no longer require the polluter to tell the Health Department when the toxic emissions will -or did- begin.

Over 93% of permitted facilities would now be exempt from the obligation to report their toxic emissions to the Health Department because of five newly added exemptions in Amendments to AMR VI "Noticing Section." Only Title V (major) facilities have the obligation, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know about the poisonous substances being put into their neighborhood air from permitted facilities. AMR VI should clearly mandate that the “type and quantity” of all toxic air contaminants from any facility requiring a permit must be included in the facility’s public notice. It would bring AMR VI into compliance with PA State Code Title 25, Chapter 127, section 45, which Philadelphia is obligated to follow. The City Health Department must be aware that its own Air Management Regulation XIII adopts PA State Code Title 25, Chapter 127 in its entirety.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) Therefore, unreported emissions of most permitted facilities in Philadelphia would apparently disappear from the records that the State receives from the City, and which the State has maintained.

The former PES Refinery is no longer permitted as a major source. New exemptions would allow Sunoco Evergreen cleanup operations and HILCO, the new owner, to not monitor or report highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground. SEPTA's gas plant in Nicetown is a synthetic minor source and would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. With the new exemptions, it’s unclear whether the next stack test at that facility would stop testing for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health

Department, would perform the assessment. This is backwards, an obvious conflict of interest. If a risk mitigation plan is required, again the polluter, not the Health Department, would develop mitigation plans and even include their cost-benefit analysis for approval of the Department. The City's Health Department should be directly accountable to the public, take full responsibility for calculating health risks and create mitigation plans. Those health risk assessments and mitigation plans should be publicized in plenty of time to include any concerns and objections during permit plan approval public comment periods. Keeping health risk assessments and mitigation plans "on file at the Department," not even on the Department's website, would be inadequate public notice.

Exemptions for health risk assessments are written into the Technical Guidance Document, Appendix B. The most striking is for major sized gas burning facilities up to 50 million BTU/hour, because 50 million BTU/hr. is almost twice the size of the threshold for a major source. The Technical Guidance document prefaces this exemption with the statement that Air Management Services determined a facility this large would have minimal toxic emissions, with no explanation. However, PA code Title 25, Chapter 127.36(c) requires an explanation. "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All health risk exemptions in Appendix B should be eliminated.

Scientists and nonscientists understand that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department created new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document. The calculations are highly questionable. One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxins flagged by California Air Toxics Program as too poisonous to even have a threshold. Another flag is that more than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, while only 8 of Philadelphia's are lower than New Jersey's. 93 are the same. Who is using up to date science and accurate math? Why are Philadelphia's calculations not explained, as required by Chapter 127.36(c)?

Perhaps the most shocking show of disdain for the health of Philadelphia's residents is in The Technical Guidance document. It establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. The Department knows that Philadelphia has never been in EPA compliance for ground ozone and is the large-city capital for asthma. The Department is aware that most of Philadelphia is

designated as environmental justice neighborhoods and that their own published disease and mortality levels in the city correlate to air pollution levels. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for human beings living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,

From: Eileen Ryan
To: Benjamin Hartung
Subject: Comments on the amendments to Air Management Regulation VI
Date: Friday, September 2, 2022 3:33:10 PM

Hi, I'm emailing as a Philadelphia resident concerned about the proposed amendments to AMR VI. I am a home-owner in South Philadelphia, and there are several issues in the amendments that don't sit well with me as I think about the health and wellbeing of my family, friends, and neighbors in the city.

• First, I don't understand why a paragraph from the original draft of the amendment that prohibited facilities from emitting toxins above a certain amount has been eliminated from the final draft - this should be re-inserted into the AMR VI.
• Second, I believe the Health Department rather than the facility or company doing the polluting should be responsible for assessing health risks. It seems to work against logic to imagine any industry will regulate itself with the best interests of public health in mind!
• Third, large-scale gas burning facilities should not be exempt from health risk assessments. The science on the risk of methane is crystal clear on this point. And in fact, I think the AMR VI contains far too many exemptions. ALL facilities applying for air contamination permits should be required to detail what toxins the facility will emit and in what amount.
• Finally, my understanding of the science of contaminants makes it clear that the Health Department should be taking into consideration the cumulative health impacts of toxic emissions in combination with other background environmental factors when calculating allowable emissions.

Thank you for the opportunity for me to voice my concerns about the Air Management Regulation VI amendments. I recognize the Health Department has to balance the concerns and interests of a wide range of actors, but I firmly believe that the primary job of the department should be to protect the health and wellbeing of Philadelphia residents above the interests of business owners or facility managers. Implementing regulations that prioritize public health will encourage a smoother transition to alternative methods of production and energy consumption which would benefit all of us.

Best,
Eileen Ryan
[redacted]

From: Ellen Fleishman
To: Benjamin Hartung
Subject: AMR VI
Date: Monday, August 8, 2022 11:07:51 AM

I am writing in support of AMR VI. I am very concerned about air quality in Philadelphia and want to support the provisions in this amendment.
Thank you,
Ellen Fleishman
[redacted]

From: Emily Davis
To: Benjamin Hartung
Subject: AMS
Date: Sunday, August 7, 2022 3:16:46 PM

AMS must consider the cumulative effect of pollutants from multiple sources being emitted in a neighborhood. There should be a maximum cumulative amount of all pollutants within a given radius. This total should consider emissions from trucks and internal combustion engine vehicles or the existence of major highways and roads in the area. Our regulations should protect environmental justice communities, not just those with friends in high places.

Emily Davis, Philadelphia Resident

MEMORANDUM

Date: August 8, 2022

To: Vicinity Energy

From: Epsilon Associates, Inc.

Subject: Comments on AMR VI Amendments

Vicinity Energy has a longstanding relationship with Epsilon Associates, Inc. (Epsilon), and relies on Epsilon to support Vicinity's environmental efforts with specialized expertise and experience. Epsilon's below comments on the Amendments are incorporated by reference into Vicinity's comments.

Introduction

Philadelphia's Air Management Services (AMS) is proposing significant changes to its regulation of toxic air contaminants (TAC) in Amendments to the Air Management Regulation VI "Control of Emissions of Toxic Air Contaminants (TACs)". These changes include requiring a comprehensive health risk assessment for any source that emit TACs at levels that exceed specific thresholds. In addition, while the regulation currently includes 99 chemicals, this list is being expanded to 217 chemicals. The Amendments to the regulations are largely borrowed from the New Jersey Department of Environmental Protection air toxic requirements, but with some significant changes that could have unintended consequences for their application in Philadelphia as discussed below.

A health risk assessment appears to be required for facilities that are filing for an Installation Permit or Plan Approval, although as discussed in more detail below, there is conflicting language in the Philadelphia rule amendments on whether this applies to permit renewals in addition to initial filings. A health risk assessment would be required for facilities if emissions of at least one TAC exceeds reporting thresholds that are specified in the Technical Guidelines published along with the amended regulations. The risk assessment requires the use of the AMS Risk Screening Workbook or US EPA AERSCREEN. If risks are above the conservative limit of 1 in a million for cancer or above a hazard quotient (HQ) of 1 for non-cancer risks, then a refined risk assessment will be required. A Title V facility, however, will be required to conduct a more extensive facility-wide risk assessment that includes more sophisticated air modeling. The screening risk assessment worksheet appears to be copied from a similar resource that NJ uses. It is noteworthy that the Philadelphia regulations differ from the NJ regulations in the risk thresholds for facility-wide evaluations. In NJ, a cancer risk of < 10 in a million is considered negligible, whereas in the Philadelphia regulations consider, 1 in a million-cancer risk as negligible. Also, unacceptable risks in NJ are defined at the level of 1000 in a million, whereas in Philadelphia it is at a level of 100 in a million. The Amendments allow for exemptions from a health risk assessment for certain sources. Overall, the Amendments will result in a significant burden for many facilities seeking to apply for or even renew air permits and for the agency that will need to review these analyses, without clear justification for this added level of regulatory oversight above what is already required at the local, state, and federal level.

Epsilon presents below specific comments and questions regarding the need for added regulation, the general process, and specific technical issues.

Comments on Regulatory Process

There are several regulations in place already that serve to reduce the risks from emissions of hazardous air pollutants (HAPs) or air toxics. These include at the federal level, 40 CRF 63 "National Emission Standards for Hazardous Air Pollutants for Source Categories," which incorporates a robust evaluation of health risks under the Risk and Technology Review process. Sources are also regulated at the local level through the air permitting process. These regulations already serve to establish strict emission standards using the best available technology to control emissions or EPA-approved Maximum Achievable Control Technology (MACT standards). These emission standards have resulted in a large decrease in the concentrations of hazardous air pollutants in Philadelphia and around the US. As stated by EPA, " from 1990 to 2017 emissions of air toxics declined by 74 percent, largely driven by federal and state implementation of stationary and mobile source regulations."[1] and this added layer of regulatory oversight is therefore redundant and will likely be overly burdensome for and costly for most facilities, likely without a significant improvement in ambient concentrations beyond what has been achieved and continues to be achieved under current regulations.

Question 1: What is the rationale for these new requirements and how will these new requirements result in added reductions beyond what is already required under federal and state regulations? That is, if a facility is already regulating emissions using the best available technology, or MACT standards and operating under a current permit to limit emissions, what additional mitigation will be required?

In addition to these regulations, US EPA conducts the National Air Toxics Assessment (NATA), now AirToxScreen, to evaluate the cancer and noncancer risks from all sources across the US. These data are meant to assess whether there are increased risks at any particular location and to understand whether any particular source or sources need to be evaluated further. As discussed below, these data are limited by a number of uncertainties and EPA has cautioned the use of these data for regulatory purposes.

Question 2: Has the data from EPA's AirToxScreen been evaluated in detail to identify specific sources of air toxics that should be addressed by added regulation, including the relative contributions from different sources (e.g., mobile sources)?

In addition to the regulations and to the national air toxics assessment conducted by EPA, air monitoring is conducted at many locations across the country to measure the concentrations of select priority HAPs (approximately 30 or less toxics). Data from these monitors support the decrease in concentrations for many HAPs over the years, but also show that concentrations are variable because of the many sources of these HAPs, including mobile sources, that contribute to overall ambient concentrations. One potential consequence of the new Amendments as written is that larger sources of HAPs would not be able to meet the strict risk thresholds for some of the air toxics given the conservative nature of the toxicity values. This may lead to the replacement of larger centralized sources, like Vicinity, with smaller more local

sources that could contribute to similar or worse air quality issues, but at a more localized area (i.e., closer to populations). Given the scarcity of data on these air toxics it will also be difficult to determine if this approach will yield measurable results.

Question 3: How will improvements in air quality and related reductions in cancer and noncancer risks be verified if there is little data, including from monitoring stations across the city?

Actual improvements in health outcomes are tied to overall exposure to contaminants, including indoor air. Studies have shown that a large proportion of exposure is from indoor air (e.g., Tran *et al.* 2020[2]; Gonzalez-Martin *et al.* 2021[3]). Alternative paths to improving air quality-related health could include limits on sources that contribute to poor indoor air conditions, and smaller sources that more directly impact residences.

Question 4: Will AMS consider alternative paths to reach the goal of reducing air toxic health impacts?

Comments on the Modeling Process

As noted previously, the Amendments to AMR VI constitute a significant regulatory burden on facilities that are already bound by stringent federal emissions standards as well as local permits. The number of air toxics increased from the 99 original air toxics to 217, more than doubling the number of air toxics that were originally included in the rulemaking. In addition, AMS has established new reporting thresholds for each of these air contaminants based on highly conservative modeling approaches and toxicity factors. The result is that a large majority of facilities will be required to conduct complex modeling (i.e., a refined risk assessment) at a significant cost, ultimately to customers, to assess whether the facility complies with the strict risk thresholds. In addition, this will require the air modeler to make important assumptions regarding facility emissions because there is limited data for the large majority of the air toxics. These assumptions can impact overall results.

Question 5: Will AMS provide detailed guidance for air modeling including:

1. Emission factors for sources not available in traditional guidance documents (e.g., AP-42)?
2. Guidance on modeling for different fuel mixtures, intermittent operations, and other operating scenarios?
3. Guidance on what receptors will be considered as the maximum impacted receptors (e.g., sensitive receptors?)

Question 6: Other than the exemptions listed in Appendix B of the Technical Guidelines, will AMS consider other exemptions for facility permit renewals and modifications if the facility can show no significant changes to emissions that would contribution to increased health risks without the required refined risk assessment? For example, with a screening level analysis and using scientifically supported emission factors and alternative toxicity values.

Comments on the Risk Assessment Process

Thresholds are based on very conservative modeling assumptions, with many levels of conservatism built in, which added together may be far from actual reasonable scenarios. Some of the conservative assumptions include:

1. Minimal plume rise
2. Operations 24 hours a day and 365 days a year
3. Maximum concentrations based on stack heights that were no more than 40 feet and within 150 feet of the property line
4. Thresholds represent the 98th percentile of candidate thresholds (subset in #3 above)

Table 4 in the support document for threshold development highlights the highly conservative nature of the approach, with suggested maximum annual concentrations of air toxics that are orders of magnitude lower and well below actual measured concentrations at an urban monitor in Philadelphia (see example table).

Air Toxic	**Current AMR VI Recommended Concentration ($\mu g/m^3$)**	**New Max Annual Concentration ($\mu g/m^3$)**	**2021 Measure Ambient Concentration (Annual Average, $\mu g/m^3$)**
Benzene	76.6	0.13	0.67
Formaldehyde	5.9	0.077	3.8
Chromium	0.12	0.00008	0.0024

Given the conservative nature of the reporting thresholds as well as background measured concentrations of air toxics that already exceed the highly conservative risk thresholds, we anticipate that that it will be very difficult for most facilities to meet these strict risk-based limits.

We encourage AMS to fully consider alternative approaches to implementing the Amendments. For example:

Question 7: There is no clear guidance on what emission factors should be used for modeling purposes. If there is no adequate data, can a facility make a case for using reasonable emission factors, or will AMS require measurement of air toxics at the stacks?

Question 8: It is unclear if the risk analysis should be conducted using a facilities potential to emit or whether actuals can be used to evaluate potential risks. AMS should clarify what emissions should be evaluated and if there is flexibility in using realistic emissions. NESHAPS risk and technology reviews are often conducted using actual emissions and not potential to emit or emissions under MACT standards. Will AMS consider evaluating compliance based on actual emissions instead of potential emissions?

Question 9: There are many toxicity values that are dated or not supported by recent scientific information. Can alternative toxicity values be applied if scientifically supported to show that concentrations can achieve risk threshold with alternative toxicity values?

Question 10: It is also unclear what the approach is for assessing the emissions and risks related to the numerous PAHs and dioxins that may be included in emissions factors. An approach that involves summing across PAHs or dioxins and applying the toxicity factor for the most toxic PAH/dioxin will likely result in an exceedance of the risk thresholds. Can AMS clarify the approach for groups of air toxics?

Question 11: Similarly, what is the approach for metal compounds? What metal species were assumed in development of the toxicity factors? Based on a brief review, several factors appear to be based on unrealistically conservative assumptions regarding the toxicity of the metal species. Is there an opportunity to adjust the evaluation when the form of the metal emitted is less toxic than the form assumed when the standard was developed?

Question 12: A risk threshold of 1 in 10^6 is extremely conservative. Traditionally, US EPA has used a range of 1 in 10^6 to 1 in 10^4, with risk mitigation required above the 1 in 10^4 risk, and acceptable if risks are below 1 in 10^4. These criteria are also used to evaluate risks for NESHAPS. As noted in the recent "fact sheet" posted, the risks in Philadelphia are already in the range that would require a risk mitigation plan for most facilities (> 10 in a million). We believe that it would be more consistent with national risk assessments to set a cancer risk threshold of 100 in a million as the threshold for requiring a risk mitigation plan, particularly given the addition of "background cancer risk" to the calculation of total cancer risks and the highly conservative and uncertain nature of the thresholds and toxicity factors used. As noted above, the risk thresholds for facility-wide risks also differ significantly from the NJ regulations, which form the basis for these regulations. Importantly, there is a "gap" in the risk thresholds such that it is unclear what facilities should do if risks fall below 10 in a million. Will AMS consider revising the risk threshold to be more consistent with other programs, including NJ and US EPA?

As noted above, the technical guidelines note that the calculation of "Total Cancer Risk" includes consideration of "Background Cancer Risk" and that the "Background Cancer Risk" be determined based on data from EPA's Air ToxScreen. We note that EPA has cautioned the use of Air ToxScreen data for regulatory purposes. Specifically, EPA[4] notes that:

"AirToxScreen assessments should *not* be used:

- to pinpoint specific risk values in small areas such a census tract;
- to characterize or compare risks at local levels (such as between neighborhoods);
- to characterize or compare risks between states,
- to examine trends from one assessment year to another,
- as the sole basis for risk reduction plans or regulations;
- to control specific sources or pollutants;
- to quantify benefits of reduced air toxics emissions."

We also note that the EPA's Air ToxScreen data is frequently revised and updated, subjecting applicants to uncertainty outside the applicant's control. This is also a deviation from the NJ regulations that do not include background risks in the calculation of facility risks.

Question 13: Based on EPA guidance and to be consistent with NJ regulations, will AMS revise the regulations to remove references to adding "Background cancer risk" to the "Total cancer risk"?

Comments on Permitting Process

The regulations have inconsistent language throughout that make it unclear whether a risk assessment will be required for all permits or approvals or just for initial permits or approvals. Below are some examples of the inconsistent language.

Examples:

> Regulation VI. Plain Language summary: *"establish threshold levels for each toxic air contaminant and require a risk assessment for permit applications for projects that have a potential to emit at least one toxic air contaminant beyond their threshold….A risk assessment would be required for **new and renewal** Title V operating permit applications."* [emphasis added] and
> *"An initial risk screening analysis would be performed for any **new or modified** air pollution source."* [emphasis added]
>
> Regulation VI. Section III. C. (2): *"The Department shall require the application for any permit or license **for any source** of toxic air contaminants affected by this Regulation to submit an assessment of health risk or hazard if the source has the potential to emit at least one toxic air contaminant in an amount above reporting thresholds established by the Department's guidelines."* [emphasis added]
>
> Regulation VI. Exhibit A. Section III. A. *"Note: Risk screening is required for **new or modified** sources where an applicant seeks Installation Permits or Plan Approvals from AMS. Applicants seeking an initial Title V permit should proceed to Section III.D."* [emphasis added]
>
> Regulation VI. Exhibit A. Section III. D. *"A facility-wide health risk assessment is required for all air toxics emitted from all air pollution sources operating as part of a Title V facility. This analysis must be performed anytime an applicant seeks an **initial** Title V permit for a facility where air toxics will be emitted in excess of the reporting threshold."* [emphasis added]

Question 14: Can AMS clarify the regulations? Will AMS consider removing the Amendment's applicability to permit renewals?

Question 17: What is the anticipated impact to permitting backlog?

Question 20: Will AMS consider a streamlined process for environmental improvement projects, or a waiver of the requirements for such projects?

Based on the questions and concerns raised above, we would suggest delaying implementation of the modifications. During this time AMS could establish stakeholder meetings to help both impacted industries and AMS to better understand the impacts of these changes and to better define the process to be followed for the risk assessments and mitigation requirements.

From:	Eric Gjertsen
To:	Benjamin Hartung
Subject:	Amendments to Air Management Regulation VI threaten our health and must be rejected
Date:	Wednesday, September 7, 2022 4:14:06 PM

To whom it may concern at the Philadelphia Department of Public Health:

As a tech worker in Philadelphia, I'm concerned that newly proposed Amendments to Air Management Regulation (AMR) VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even eliminate the prohibition on toxic emissions exceeding permit limits and cancel the obligation for a polluter to say when the toxic emissions will -or did- begin. These are all alarming steps in the wrong direction.

In Amendments to AMR VI "Noticing Section," there are five exemptions. Over 93% of permitted facilities are exempt from the obligation to report their toxic emissions to the Health Department. Only Title V (major) facilities would be obligated, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. Chapter 127 Title 25 Pennsylvania Code legally requires that every permitted air pollution source, whether minor or major, must give public notice of the type and quantity of all air contaminants emitted, with an exception for small gas burning boilers up to 10 million BTU/hr. The City's own Air Management Regulation XIII adopts Chapter 127 Title 25 PA Code.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) The unreported emissions of most permitted facilities in Philadelphia will apparently disappear from the records that the State receives from the City, and which the State has maintained.

At the former PES Refinery, which is no longer permitted as a major source, Sunoco Evergreen cleanup operations and HILCO, the new owner, would be exempt from reporting highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground, that formed during 150 years of refining petroleum. A synthetic minor source, like SEPTA's gas plant in Nicetown, would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. If toxics are not listed for a facility, a stack test may not test for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, is to complete the assessment. This is backwards due to an obvious conflict of interest. When a risk mitigation

plan is to be made, again the polluter develops this plan and even includes their own cost-benefit analysis for the Health Department. But the Health Department should be directly accountable to the public and take full responsibility for calculating health risks and for creating mitigation requirements. The public has the right to be fully informed about health risk assessments and mitigation plans in plenty of time to comment on them, as part of public comments on permit plan approvals. Keeping health risk assessments and mitigation plans "on file" at the Department, not even on the Department's website, does not count as informing the public.

Loopholes for health risk assessments were written into the Technical Guidance Document, Appendix B as exemptions. Of the 4 exemptions, the most striking is for major sized gas burning facilities up to 50 million BTU/hr. 50 million BTU/hr. is almost twice the size of the threshold for a major source. The document states that Air Management Services determined a facility this large would have minimal toxic emissions, but there is no explanation even though one is required by Chapter 127.36(c) Title 25 PA Code: "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All four health risk exemptions should be eliminated.

Scientists and nonscientists can see that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department science used to create new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document is highly questionable. One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxics flagged by California Air Toxics Program as too toxic to even have a threshold. More than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, and only 8 of Philadelphia's are lower than New Jersey's. 93 are the same and some are not comparable because they are not found in both State's lists. Who is using science and math correctly and why are the calculations not explained, as required by Chapter 127.36(c) Title 25 PA Code?

The Technical Guidance document establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. We are already known as the large-city capital for asthma. The Health Department should be aware that most of Philadelphia is designated as environmental justice neighborhoods and that current and their own published disease and mortality levels correlate to air pollution levels in our city. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for the human beings (and other creatures) living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,

Eric Gjertsen
[redacted]

From: Jared Krueger
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Monday, September 5, 2022 10:24:34 AM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Jared Krueger
[redacted]

From: Jason P
To: Benjamin Hartung
Subject: AMR VI comment
Date: Tuesday, September 6, 2022 11:52:49 PM

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even eliminate the prohibition on toxic emissions exceeding permit limits and cancel the obligation for a polluter to say when the toxic emissions will -or did- begin.

In Amendments to AMR VI "Noticing Section," there are five exemptions. Over 93% of permitted facilities are exempt from the obligation to report their toxic emissions to the Health Department. Only Title V (major) facilities would be obligated, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. Chapter 127 Title 25 Pennsylvania Code legally requires that every permitted air pollution source, whether minor or major, must give public notice of the type and quantity of all air contaminants emitted, with an exception for small gas burning boilers up to 10 million BTU/hr. The City's own Air Management Regulation XIII adopts Chapter 127 Title 25 PA Code.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) The unreported emissions of most permitted facilities in Philadelphia will apparently disappear from the records that the State receives from the City, and which the State has maintained.

At the former PES Refinery, which is no longer permitted as a major source, Sunoco Evergreen cleanup operations and HILCO, the new owner, would be exempt from reporting highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground, that formed during 150 years of refining petroleum. A synthetic minor source, like SEPTA's gas plant in Nicetown, would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. If toxics are not listed for a facility, a stack test may not test for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, is to complete the assessment. This is backwards due to an obvious conflict of interest. When a risk mitigation plan is to be made, again the polluter develops this plan and even includes their own cost-benefit analysis for the Health Department. But the Health Department should be directly accountable to the public and take full responsibility for calculating health risks and for creating mitigation

requirements. The public has the right to be fully informed about health risk assessments and mitigation plans in plenty of time to comment on them, as part of public comments on permit plan approvals. Keeping health risk assessments and mitigation plans "on file" at the Department, not even on the Department's website, does not count as informing the public.

Loopholes for health risk assessments were written into the Technical Guidance Document, Appendix B as exemptions. Of the 4 exemptions, the most striking is for major sized gas burning facilities up to 50 million BTU/hr. 50 million BTU/hr. is almost twice the size of the threshold for a major source. The document states that Air Management Services determined a facility this large would have minimal toxic emissions, but there is no explanation even though one is required by Chapter 127.36(c) Title 25 PA Code: "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All four health risk exemptions should be eliminated.

Scientists and nonscientists can see that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department science used to create new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document is highly questionable and . One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxics flagged by California Air Toxics Program as too toxic to even have a threshold. More than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, and only 8 of Philadelphia's are lower than New Jersey's. 93 are the same and some are not comparable because they are not found in both State's lists. Who is using science and math correctly and why are the calculations not explained, as required by Chapter 127.36(c) Title 25 PA Code?

The Technical Guidance document establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. We are already known as the large-city capital for asthma. The Health Department should be aware that most of Philadelphia is designated as environmental justice neighborhoods and that current and their own published disease and mortality levels correlate to air pollution levels in our city. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for the human beings living here.

The Health Department is funded by the public and has a mandate to protect public

health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,
Jason Puglionesi

PhilaPort
THE PORT OF PHILADELPHIA

Executive Director &
Chief Executive Officer

August 9, 2022

Via Electronic Mail (Benjamin.Hartung@phila.gov)
Benjamin Hartung
Public Policy Advisor
City of Philadelphia, Department of Public Health

Re: Comments on the Department of Health's Proposed Amendments to Air Management Regulation VI

Dear Mr. Hartung:

PhilaPort hereby submits the following comments on the Department of Public Health's proposed amendments to Air Management Regulation VI Control of Emissions of Toxic Air Contaminants ("AMR VI"), posted on the Department of Public Records' website on May 2, 2022 (the "Proposed Rule"). PhilaPort is an independent agency of the Commonwealth of Pennsylvania charged with the management, maintenance, marketing and promotion of port facilities at the Port of Philadelphia, as well as strategic planning throughout the port districts.[1] The Port of Philadelphia consists of a number of marine terminals handling a diverse range of cargo, from fruits, vegetables, cocoa beans and cocoa products to other perishable and non-perishable items. Many of the fruit and other perishable cargo are required to be fumigated under federal law before being released for transport outside of the Port. The additional requirements imposed by the Proposed Rule on fumigants will directly impact PhilaPort's business and interfere with its ability to ensure that perishable cargo is effectively treated for pests consistent with federal law.

PhilaPort is concerned that the Air Pollution Control Board ("APCB") did not adequately consider the extensive regulation of fumigants and fumigation operations under the Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA") in identifying fumigants as toxic air contaminants and imposing extensive additional obligations on fumigation activities. As currently drafted, the Proposed Rule would significantly impact the essential role that the Port of Philadelphia plays in the supply chain in importing cargo and acting as a distribution hub for the Commonwealth. PhilaPort is submitting this comment letter to provide additional facts and considerations that we believe are critical to the APCB's understanding of the potential impact of the Proposed Rule and request that the APCB exempt fumigation activities from the proposed rule and remove fumigants that are not hazardous air pollutants ("HAPs"), volatile organic compounds ("VOCs"), or criteria pollutants from the list of toxic air contaminants. In support thereof, PhilaPort provides the following facts and considerations:

1. The requirements imposed by EPA in a fumigant's pesticide label are designed to protect human health, including the surrounding community. As part of the pesticide registration process under FIFRA, EPA performs a robust risk assessment, taking into account toxicological

[1] The Philadelphia Regional Port Authority, now known as PhilaPort, was established pursuant to the Philadelphia Regional Port Authority Act, Act of July 10, 1989, P.L. 291, No. 50, 55 P.S. §§ 697.1 *et seq.*

studies on both acute, subacute, and chronic effects to humans, domestic animals and non-target organisms, pesticide drift, and environmental fate studies, among other factors.[2] The resulting fumigant label contains requirements that EPA determines necessary to protect human health, including, but not limited to, fumigant management practices, application requirements, monitoring requirements, and buffer zones and clearance levels that are acceptable for both unprotected workers and the surrounding community during and after fumigation. Certified applicators are legally required to comply with the requirements of the label or risk enforcement action.[3] EPA will periodically re-review each registered pesticide to ensure that its label is based on the best available science.[4] The APCB's inclusion of fumigants, such as sulfuryl fluoride, methyl bromide, and phosphine, as toxic air contaminants in the Appendix to the Proposed Rule is duplicative and unnecessary given EPA's extensive evaluation and regulation of pesticides under FIFRA.

2. The APCB has proposed sweeping changes that would substantially expand its list of toxic air pollutants in the Appendix to AMR VI to include fumigants, among other pollutants, without an independent analysis of scientific data to determine whether such identification is necessary and appropriate in Philadelphia.[5] Some of the fumigants identified by the APCB, such as sulfuryl fluoride, are not HAPs, VOCs, or criteria pollutants. Instead, the APCB appears to have simply adopted the list of air pollutants identified in the New Jersey Department of Environmental Protection's ("NJDEP") Risk Screening Worksheet.[6] The APCB should perform the appropriate analyses and demonstrate that there are risks posed by emissions of fumigants that are not already addressed under FIFRA and AMS' current permit requirements, which already regulate fumigant emissions by requiring facilities to obtain a permit.[7]

3. Perishable cargo at the Port of Philadelphia is required to be fumigated prior to import and export in accordance with requirements imposed by the U.S. Department of Agriculture ("USDA"), the Food and Drug Administration ("FDA"), and destination countries.[8] It is critical

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[2] *See* 40 C.F.R. Parts 152 and 158; *see also* EPA's Overview of Risk Assessment in the Pesticide Program at https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/overview-risk-assessment-pesticide-program.
[3] *See* 40 C.F.R. § 156.10; *see also* 7 U.S.C. § 136j(a)(2)(G) (making it unlawful to use any registered pesticide in a manner inconsistent with its labeling).
[4] *See* 7 U.S.C. § 136a(g) and 40 C.F.R. § 155.53.
[5] *See* Appendix to Proposed Rule; *see also* Section 3-201(c) of the Air Management Code, requiring the APCB to evaluate a number of factors before revising its list of toxic air contaminants including, among other things, the risk of immediate or subacute harm to human health in the City of Philadelphia and toxicological information.
[6] *See* NJDEP's Risk Screening Tools at https://www.state.nj.us/dep/aqpp/risk.html. NJDEP is currently proposing to amend its risk screening worksheet to include sulfuryl fluoride.
[7] AMS' existing requirements applicable to fumigants that are classified as HAPs, VOCs or criteria pollutants can be found in AMR II and XIII.
[8] The USDA Animal and Plant Health Inspection Service ("APHIS") requires ports of entry, such as the Port of Philadelphia, to undergo quarantine fumigations for certain food cargo as a condition of their entry into the United States. *See* 7 C.F.R. § 330.106. USDA APHIS has detailed fumigation requirements for many aspects of the fumigation process, including specifying the types of fumigants that must be used for each type of produce, the dosage, treatment duration, and types of enclosures that can be used, how commodities must be arranged during fumigation, and safety requirements for release of commodities and re-entry of facility personnel. *See* USDA

to PhilaPort's business that perishable cargo can be fumigated in accordance with federal law or its customers will seek out other ports. Furthermore, certified applicators must be able to apply the proper dosage of fumigants, as prescribed by the pesticide label and APHIS tables, to prevent the proliferation of foreign pests and to ensure adequate treatment for food safety.[9] Without adequate flexibility, certified applicators will not be able to effectively treat food commodities for pests. The identification of fumigants as toxic air contaminants and the proposed regulatory scheme in the amendments to AMR VI raises concerns regarding the ability to ensure compliance with import and export fumigation requirements and to ensure food safety in accordance with federal requirements at PhilaPort facilities. PhilaPort is concerned that if fumigation activities are not exempted from the Proposed Rule, it may cause perishable cargo to be imported, exported and/or stored outside of Philadelphia or in other states to avoid potential violations of federal law.

4. The increased requirements and costs associated with the Proposed Rule will impact the costs of importing and storing perishable products, resulting in potential loss of business for PhilaPort and other businesses that rely on the import of perishable goods, and of all the direct and indirect jobs associated with these industry sectors and businesses. Port cargoes and the activities that they generate are responsible for thousands of direct and indirect jobs in the Philadelphia area and throughout Pennsylvania. The Port of Philadelphia is a primary entry point for food commodities, such as meat, fruit and cocoa beans, into the U.S. market, and has recently been described by Governor Wolf and Senator Casey as "one of the most critical links in the country's supply chain" and vital to the economic health of not only Philadelphia, but also the entire Commonwealth.[10] In 2019, the Port of Philadelphia was estimated to provide 10,000 direct and indirect jobs in the City associated with its marine cargo activity, resulting in approximately $15 billion in economic output in Pennsylvania per year and approximately $94 million per year in state and local taxes, and is continuing to grow.[11] The Port of Philadelphia competes with ports in Southern states for business, which are not subject to as stringent requirements on fumigation as those included in the Proposed Rule. PhilaPort believes that the wide-ranging repercussions on the local and state economy of the Proposed Rule, as it would apply to fumigation activities,

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APHIS' Treatment Manual at http://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/treatment.pdf. In addition to requirements in the Treatment Manual, certified applicators must fumigate in accordance with the pesticide label. *See* 7 C.F.R. § 330.106. USDA inspectors are present at fumigations to ensure compliance with all applicable requirements. Furthermore, the Food Safety and Modernization Act ("FSMA") requires, among other things, owners and operators of facilities to identify and evaluate known or reasonably foreseeable hazards, implement preventive controls, monitor the effectiveness of controls, and implement corrective actions if those preventive controls are ineffective. 21 U.S.C. § 350g. While not specifically required to fumigate by the FDA, companies commonly utilize fumigation to meet these FDA requirements and the hazard of pest infestation.

[9] Certified applicators must be able to adjust the dosage of pesticides depending on the pest species and life stages of the pest being treated, the temperature at the facility, the exposure time (i.e., the number of hours the target pest is exposed to the fumigant), and how well an area holds a fumigant from loss. As an example, *see* the Applicator's Manual for ProFume, at 52-53; s*ee also* APHIS' Treatment Manual.

[10] *See* Governor Wolf's February 4, 2022 press release at https://www.governor.pa.gov/newsroom/wolf-administration-announces-additional-246-million-investment-at-port-of-philadelphia/.

[11] *See* PhilaPort's testimony to the Pennsylvania House of Representatives at https://www.pahouse.com/PolicyCommittee/HearingMaterials/Testimony/?id=121871.

requires further analysis and consideration. As noted above, these activities are already being regulated at the Federal level and by AMS when the fumigant involved is a HAP or VOC. As there is nothing mandating that these regulations be amended to address already regulated fumigation activities, PhilaPort requests that such fumigation activities be exempted from the Proposed Rule.

5. The APCB has not provided adequate public notice of information critical to being able to evaluate the full impact of the Proposed Rule and submit meaningful public comments. First, the public notice posted on the Department of Records' website did not contain the unit risk factors and reference concentrations that facilities will need to use to demonstrate acceptable risk.[12] Second, the APCB has not articulated and provided an opportunity to comment on the types of conditions that AMS has the authority to impose on existing facilities. While PhilaPort was able to obtain a version of the draft Risk Screening Workbook from other affected entities, without a complete understanding of the basic inputs for the proposed risk assessment analysis, the technical support for identifying fumigants as toxic air contaminants, and the types of conditions that AMS can impose, it is impossible for PhilaPort to evaluate the full impact of the Proposed Rule.[13]

a. The proposed reference concentrations and unit risk factors for fumigants contained in the draft Risk Screening Workbook are not supported by the toxicological databases that AMS cites.[14] For example, the draft Risk Screening Workbook, without explanation or analysis, includes a short-term non-carcinogenic reference concentration of 1,700 $\mu g/m^3$ and a long-term non-carcinogenic reference concentration of 60 $\mu g/m^3$ for sulfuryl fluoride. The three databases identified by AMS do not contain toxicity information or reference concentrations for sulfuryl fluoride. Instead, it appears that AMS based the sulfuryl fluoride reference concentrations on reference concentrations that were originally proposed to be used by NJDEP in 2019, and were later rescinded.[15] The discrepancies between the proposed reference concentrations and the databases that AMS claims to have relied on reveals that AMS has not sufficiently analyzed or studied appropriate reference concentrations.

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[12] While the public notice did contain a list of air contaminants to be included in the Risk Screening Workbook as Exhibit C to the Proposed Rule, this version of the workbook did not contain the proposed unit risk factors and reference concentrations. *See* Exhibit C to the Proposed Rule.

[13] Because the complete Risk Screening Workbook was not provided as part of the public notice, it is unclear whether the APCB intends to use the reference concentrations contained within the version of the Risk Screening Workbook that it obtained, or some other values.

[14] In the Technical Support Document, AMS states that the unit risk factors and reference concentrations were developed using the latest updates of EPA's Integrated Risk Information System, CalEPA's Toxicity Criteria Databases, and Agency for Toxic Substances Disease Registry's "Minimal Risk Levels for Hazardous Substances." *See* Technical Support Document, Section 2.3.2 at 10. However, as noted above, this does not appear to be the case with respect to certain fumigants.

[15] *See* NJDEP's Fact Sheet, dated May 8, 2019, at https://www.state.nj.us/dep/aqpp/archived/RSWorksheet/Risk%20Screening%20Worksheet%20Fact%20Sheet.pdf.

b. The APCB has not specified the types of information that AMS can consider or the conditions that AMS can impose on existing facilities.[16] Existing facilities that have operated for decades, like PhilaPort's ports and marine terminals, could suddenly be faced with unpredictable new conditions on operations that are not proportional to the level of risk posed by these facilities and may be inconsistent with federal law. These important business operations in the City of Philadelphia will no longer be able to predict whether they can obtain a permit even if they meet the applicable requirements, because AMS can impose additional and potentially burdensome requirements in each new or renewed permit. Because all aspects of the use of fumigants are regulated by EPA under FIFRA and USDA APHIS, at a minimum, the APCB should require AMS to ensure that any conditions imposed are consistent with EPA's approved pesticide label and APHIS manuals, and do not interfere with a facility's ability to adequately address pest infestations and comply with federal law.

6. The risk assessment process outlined in the Technical Guidelines does not provide adequate flexibility to AMS to consider the realistic scope of actual fumigation operations as opposed to hypothetical worst-case scenarios.[17] Unlike the assumptions built into the APCB's risk assessment process, most fumigation scenarios involve fumigating a certain number of containers, or a room or area of a building, as opposed to an entire building. The compounded effect of AMS requiring that a worst-case fumigation scenario be used to model the potential risk, regardless of the frequency in which the worst-case scenario occurs, and proposing unnecessarily stringent reference concentrations, results in an unrealistic portrayal of risk. As currently drafted and if applied to fumigation activities, the Proposed Rule would potentially require port facilities to expend considerable resources to redesign their facility or install costly upgrades, which could easily approach or exceed $100,000, for a fumigation activity that is infrequent and heavily controlled.[18] Instead of using worst-case scenarios, as the APCB proposes, permit applicants should be allowed to use actual emission rates and reasonable worst-case meteorological conditions in evaluating risk, consistent with EPA's approach in conducting residual risk

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[16] Section III.C.(3) of the Proposed Rule authorizes AMS to evaluate any information that it considers to be relevant and to impose, as conditions on its approval, any conditions that it determines are necessary to address the health hazard posed by toxic air contaminants.

[17] The Technical Guidelines require applicants to measure risk based on a series of worst-case events occurring simultaneously, i.e., worst-case weather conditions occurring while emitting the most possible emissions with a bystander standing at the property line. The Technical Guidelines are incorporated by reference into the Proposed Rule in Section III.B.(1).

[18] On July 28, 2022, AMS posted Frequently Asked Questions About Amendment to AMR VI in which AMS determined that the economic impact of the Proposed Rule was expected to be low. AMS' economic analysis does not consider that most facilities, such as PhilaPort, do not fit the standard assumptions in the Risk Screening Workbook and thus would be required to perform more refined (and expensive) modeling, and that control technology may not be readily available because AMS has proposed to include fumigants, such as sulfuryl fluoride, that are not HAPs or VOCs. AMS has also not considered the indirect impacts that the Proposed Rule will have on the economy and jobs.

assessments for the National Emission Standards for Hazardous Air Pollutants.[19] At a minimum, the APCB should grant AMS discretion to apply less stringent modeling conditions, as appropriate, based on the location, duration and frequency of fumigation activities and the likelihood of receptors being present at nearby off-site locations.

PhilaPort appreciates the opportunity to provide these comments on the Proposed Rule. As always, PhilaPort is committed to working with AMS to address any real concerns regarding the safety of its operations. PhilaPort is confident that fumigation at the Port of Philadelphia is being done safely and in a manner that protects the community. Given the robust requirements that are already in place under FIFRA, the additional requirements in the Proposed Rule are not necessary. Accordingly, the APCB should exempt fumigation activities that are subject to FIFRA from the Proposed Rule. PhilaPort also encourages the APCB to remove sulfuryl fluoride and other fumigants that are not HAPs, VOCs, or criteria pollutants from the list of toxic air contaminants until the APCB can demonstrate there is scientific support for their inclusion.

Sincerely,

Jeff Theobald

Jeff Theobald
Executive Director & CEO

cc: Lisa U. Magee, PE

[19] *See, e.g.,* 87 Fed. Reg. 1616 (Jan. 11, 2022) (using worst actual allowable emission rates and reasonable worst case meteorological conditions (i.e., the 99th percentile) to evaluate potential risk and develop Maximum Achievable Control Technology allowable emission limits in its Primary Copper Smelting Residual Risk and Technology Review).

From: Jonathan Leibovic
To: Benjamin Hartung
Subject: AMR VI
Date: Friday, September 9, 2022 11:55:50 AM

Dear Mr. Hartung,

Thank you for accepting my comments about the proposed revisions to AMR VI.

i'm glad you are updating these guidelines for the first time in 40 years. Since AMR VI was first established, we have learned so much about the science and sociology of air pollution.

Standardizing the reporting procedures and increasing the list of regulated substances are a great starting-point, but they are not enough, especially if it may be another 40 years until AMR VI is revised again.

These new guidelines would exempt 96% of facilities across the city from reporting. That is not acceptable.

The Health Department, not the polluter, should perform health risk assessments.

The original AMR VI contained a paragraph which prohibited facilities from emitting more than the approved toxic emissions, but that paragraph has been removed. It should be reinstated.

There should be no exemption for large, major-sized gas-burning facilities to do a health-risk assessment.

Finally, the benchmark for "undue cancer risk" is more than twice the current risk in Philadelphia today, and should be lowered for safety and environmental justice.

Thank you for all you do to protect air quality in our city! May the people prevail over pollution!

Jonathan Leibovic
[redacted]

From: Karen Melton
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Monday, September 5, 2022 7:50:11 PM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Karen Melton
[redacted]

From: Kevin Esposito
To: Benjamin Hartung
Subject: Amendments to AMR VI
Date: Thursday, September 8, 2022 2:12:07 PM

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even remove the prohibition on toxic emissions exceeding permit limits and no longer require the polluter to tell the Health Department when the toxic emissions will -or did- begin.

Over 93% of permitted facilities would now be exempt from the obligation to report their toxic emissions to the Health Department because of five newly added exemptions in Amendments to AMR VI "Noticing Section." Only Title V (major) facilities have the obligation, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know about the poisonous substances being put into their neighborhood air from permitted facilities. AMR VI should clearly mandate that the “type and quantity” of all toxic air contaminants from any facility requiring a permit must be included in the facility’s public notice. It would bring AMR VI into compliance with PA State Code Title 25, Chapter 127, section 45, which Philadelphia is obligated to follow. The City Health Department must be aware that its own Air Management Regulation XIII adopts PA State Code Title 25, Chapter 127 in its entirety.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) Therefore, unreported emissions of most permitted facilities in Philadelphia would apparently disappear from the records that the State receives from the City, and which the State has maintained.

The former PES Refinery is no longer permitted as a major source. New exemptions would allow Sunoco Evergreen cleanup operations and HILCO, the new owner, to not monitor or report highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground. SEPTA's gas plant in Nicetown is a synthetic minor source and would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. With the new exemptions, it’s unclear whether the next stack test at that facility would stop testing for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health

Department, would perform the assessment. This is backwards, an obvious conflict of interest. If a risk mitigation plan is required, again the polluter, not the Health Department, would develop mitigation plans and even include their cost-benefit analysis for approval of the Department. The City's Health Department should be directly accountable to the public, take full responsibility for calculating health risks and create mitigation plans. Those health risk assessments and mitigation plans should be publicized in plenty of time to include any concerns and objections during permit plan approval public comment periods. Keeping health risk assessments and mitigation plans "on file at the Department," not even on the Department's website, would be inadequate public notice.

Exemptions for health risk assessments are written into the Technical Guidance Document, Appendix B. The most striking is for major sized gas burning facilities up to 50 million BTU/hour, because 50 million BTU/hr. is almost twice the size of the threshold for a major source. The Technical Guidance document prefaces this exemption with the statement that Air Management Services determined a facility this large would have minimal toxic emissions, with no explanation. However, PA code Title 25, Chapter 127.36(c) requires an explanation. "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All health risk exemptions in Appendix B should be eliminated.

Scientists and nonscientists understand that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department created new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document. The calculations are highly questionable. One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxins flagged by California Air Toxics Program as too poisonous to even have a threshold. Another flag is that more than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, while only 8 of Philadelphia's are lower than New Jersey's. 93 are the same. Who is using up to date science and accurate math? Why are Philadelphia's calculations not explained, as required by Chapter 127.36(c)?

Perhaps the most shocking show of disdain for the health of Philadelphia's residents is in The Technical Guidance document. It establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. The Department knows that Philadelphia has never been in EPA compliance for ground ozone and is the large-city capital for asthma. The Department is aware that most

of Philadelphia is designated as environmental justice neighborhoods and that their own published disease and mortality levels in the city correlate to air pollution levels. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for human beings living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,
Kevin Esposito
[redacted]

From: Kimberly Allen
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Friday, September 9, 2022 9:09:34 AM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Kimberly Allen
[redacted]

From: Littell, Kristi
To: Benjamin Hartung
Subject: Opposition to Proposed Amendments to AMR VI
Date: Wednesday, September 7, 2022 12:08:52 PM

Dear Mr. Hartung,

As the CEO of a charter school with two locations in Philadelphia, I am writing to let you know that I am strongly opposed to the proposed amendments to AMR VI. These amendments endanger public health and limit the information available to the public regarding toxic pollution near homes and workplaces.

The Fernhill Campus of Wissahickon Charter School is located on Wissahickon Avenue near the site of SEPTA's Midvale Complex Property. WCS was founded around a mission that highlights the importance of instilling a love of the outdoors in children as a way to allow them to be curious about their world and caretakers of the Earth. This mission is at the heart of the work our teachers do on a daily basis, and as such, our students spend more time outdoors in order to explore, play, and learn. To imagine that these students could be unknowingly exposed to more pollution from the Midvale Complex because of the proposed amendments to AMR VI is unacceptable. Many of our students suffer from asthma, a condition which is exacerbated by pollution. Taking the children with asthma outside in circumstances where they are unknowingly exposed to additional pollutants and toxins is an untenable position. Our students deserve the opportunity to explore the outdoors and to breathe safely while doing so.

Changes to AMR VI would affect plants and corporations that exist in largely Black-American communities, which are also often economically disadvantaged. Allowing additional pollutants and toxins to be released into the air in these communities without providing direct, straightforward information about the pollution being created is environmental racism. Corporations creating the pollution will face no consequences for their actions because they are targeting areas that may lack the resources necessary to protest the actions of the corporations.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,
Kristina Littell

--
Kristina P. Littell
CEO
Wissahickon Charter School
www.wissahickoncharter.org
Make a gift to WCS!
Pronouns: she/her/hers

We take care of the earth that takes care of us.

Environmental Health & Radiation Safety
3160 Chestnut Street, Suite 400
Philadelphia, PA 19104-6287
Tel: 215.898.4453
Fax: 215.898.0140

August 9, 2022

Mr. Benjamin Hartung
Philadelphia Department of Public Health
1101 Market St, 9th Floor
Philadelphia, PA
Benjamin.Hartung@phila.gov

Re: Proposed Amendments to Air Management Regulation VI ("Control of Emissions of Toxic Air Contaminants")

Dear Mr. Hartung,

On August 10, 2022, the City of Philadelphia Air Pollution Control Board is holding a special public meeting to hear comments regarding the recently proposed Air Management Regulation (AMR) VI amendment. In preparation for this public event, the University of Pennsylvania (University) offers the following comments to AMR VI.

The University appreciates the opportunity to provide public comment on the July 11, 2022, proposed amendment to Air Management Regulation VI. As the largest private employer in the City of Philadelphia, the University's footprint includes:

- University undergraduate, graduate & associated laboratory research.
- Penn Medicine Hospitals & associated laboratories; and
- Innovation, research & associated laboratories – one of the nation's top research universities, not only generating important new knowledge in the fields of medicine, technology, business, science, and beyond, but applying this knowledge to improve the lives of individuals and communities in Philadelphia and around the world.

Activities related to air emissions are primarily related to fuel consumption in heaters, boilers, emergency generators and fire pumps as described in the University's Title V permit. Research and laboratories are exempt from the University's Title V Permit.[1]

[1] Permit No. OP16-000005 *Section 13. Philadelphia Toxic Notification (5) Incidental or minor sources including laboratory-scale operations, fireplaces and household appliances, cooking appliances, general comfort ventilation of occupied spaces, housecleaning operations, residential-scale solvent use and pesticide application, and such other sources or categories of sources which are determined by AMS to be of minor significance for the purposes of this Regulation, or which AMS determines to be more appropriately evaluated by special survey methods*.

The University understands that, in the proposed amendment to AMR VI, AMS intends to:

- Increase the number of toxic air contaminants (TACs or sometimes referred to as HAPs) to be regulated under AMR VI.
- Add reporting threshold in pounds per year for each TAC that above which AMS would require a health risk assessment.
- In addition to the requirement for conducting a health risk assessment for new permit applications to install or modify equipment, AMS is proposing a new requirement for a facility-wide risk assessment for Title V facilities.

The proposed amendment to AMR VI rule is of particular concern to the University as AMS has previously taken the position that essentially all University activities in Philadelphia be considered a single facility under the permitting requirements of Title V. While this designation has already imposed significant compliance requirements to the University, the proposed amendment to AMR VI would add a burdensome and unnecessary level of complexity without consideration to any potential benefits in TAC emission reductions, if any.

1. We strongly encourage AMS to continue to provide an exemption to AMR VI for laboratory scale operations.

   University activities are uniquely diverse (education, health care & research) and spread throughout Philadelphia. University laboratories utilize relatively small quantities of laboratory chemicals including TACs. These laboratories are under the supervision of a qualified teaching instructor and/or chemist, biologist or other scientist with particular expertise in their respective fields[i].

   Essentially all United States Environmental Protection Agency (US EPA) regulations for HAPs specifically exempt research and development operations. For example, 40 CFR Part 63, Subpart FFFF (for major miscellaneous HAP sources) and Subpart VVVVVV (for minor miscellaneous HAP sources), have an exemption for "Research and development facilities, as defined in section 112(c)(7) of the CAA[ii]".

   Further, the US EPA provides a similar exemption for its premanufacturing notifications under CFR, Chapter I Subchapter R, Part 720, when "the chemical substance is used by, or directly under the supervision of, a technically qualified individual[iii]."

2. We likewise encourage AMS to continue to provide an exemption to AMR VI for certain combustion sources.

Further regulating combustion sources would not bring about any reduction in TAC or HAP emissions as there are no add-on controls that would be effective. AMS should continue to exempt combustion processes "using only commercial fuel, including internal combustion engines" from AMR VI.

3. US EPA has correctly opted to not regulate the HAP category for research and laboratory facilities.

   Under the Clean Air Act Amendments of 1990, Congress specified that EPA regulate HAP from research facilities per 112(c)(7) of the CAA. EPA understood that the complexities and broad nature of research and laboratory facilities did lend themselves to a one size fits all regulatory approach[iv]. We recommend that AMS follow EPA's lead and exclude research and development from additional regulation of HAPs.

4. Presumptive comparisons on the success of the proposed AMS approach to that of the New Jersey Department of Environmental Protection (NJ DEP) are not appropriate.

   AMS has a stated intention of using federal grant funding for their staffing needs AMS has modeled their approach to that of NJ DEP. Comparisons to AMS technical resources even with increases funding to those of NJ DEP are misleading. NJ DEP has been regulating air toxics for many years due to the abundance of chemical & pharmaceutical manufacturing and petroleum refining. NJ DEP has focused efforts on these higher HAP emitting sources with commensurate staffing added as needed.

5. AMS has not considered the negative impact of the already long permit process in Philadelphia.

   The proposed expansion of the number of chemicals coupled with the facility-wide risk assessment process for those with Title V permits will only serve to cause further delays in permitting. For example, an application to renew our Title V application has been under AMS review for over seven (7) months already. AMS has no deadline for approving applications. Additional staff can only partially off-set future processing delays. The preparation of the Title V application will be a long, tedious process for the University in assembling the information needed for the risk assessment.

6. Without a research and laboratory exemption, the proposed amendment will stifle research competition, potentially affecting good paying jobs, and exacerbate Philadelphia's "brain drain".

   As note previously, the research and laboratory impacts would be disproportionately impacting facilities that are on the cutting edge of biomedical and technology development within Philadelphia. If the permit process takes too

long, research efforts may move to the suburbs where the Pennsylvania Department of Environmental Protection (PA DEP) is under strict processing timelines for permit applications. The research focus of the University and other Philadelphia institutions has helped transform the City into a leader in avoiding "brain drain". If the proposed amendment does not exempt laboratories, such progress will likely be negatively impacted. At a minimum, the amendment should stipulate a strict AMS review timeline.

7. Other sources of TAC and HAP emissions should be the focus of air toxic regulations to maximize the benefit to the environment.

   Reducing emissions from stationary sources involving the manufacturing segment should be the focus of the proposed amendment. Closure of the south Philly petroleum refinery complex has greatly reduced the TAC and HAP emissions already.

   More importantly, the pollutants of concern are likely the result of mobile sources. AMS should look to potential reductions from this source category before further limiting other, less polluting, sources like research and laboratories.

8. Remove the background (ambient air) concentration of TAC in the risk assessment process.

   AMS states the amendment to AMR Regulation IV is based on NJ DEP's air toxic risk assessment program. NJ DEP references their Technical Manual 1003 in which there is no mention of considering background concentrations in determining the risk level. The University, therefore, urges consistency between the programs in that consideration of background concentrations be removed entirely from the AMS Technical Support Document.

9. Other technical changes to the proposed amendment are required.

   This proposed amendment would require a variety of changes to make it workable including:

   - Allow for a phased-in implementation schedule.

   - Set an overall exemption level, consistent with NJ DEP 7:27-17.8(a)3, "not emitted from any source operation, storage tank, or transfer operation at a rate in excess of 0.1 pounds (45.4 grams) per hour".

The University appreciates this opportunity to offer comments. Should you have any questions, please contact me at [redacted] or by e-mail at [redacted].

Sincerely,

Kyle Rosato
Associate Director
Environmental Health & Radiation Safety
University of Pennsylvania

Hartung-22-00169-KR-sd

Endnotes:

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[i] UPenn has a large footprint in West Philadelphia with laboratory activities in approximately 48 different buildings. Within these building are currently 725 active laboratory groups with a total of 1,083 fume hoods where small, laboratory scale experiments are performed.

Laboratory fume hoods are utilized to protect laboratory staff from exposure to hazardous chemicals while containers are opened and contents are transferred to other containers, reaction vessels, etc. Hoods are also used to contain closed loop distillation units that are used to concentrate solvents and dry solvents.

These systems are designed to minimize the loss of expensive solvents/reagents and containers are kept closed whenever possible to minimize evaporation and loss of product.

Additionally, waste chemicals are collected in airtight containers and are kept closed at all times, except when chemicals are being added. This closure requirement if required by EPA/PADEP hazardous waste regulations. Consequently, HAP emissions from lab scale operations should be very low and would have minimal impact on our total facility emissions. We do not currently track this emissions data and attempting to quantify the de minimis emissions from 1083 fume hoods would be a daunting and cost prohibitive task.

[ii] *"Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner."*

[iii] "*Technically qualified individual means a person or persons*

> *(1) who, because of education, training, or experience, or a combination of these factors, is capable of understanding the health and environmental risks associated with the chemical substance which is used under his or her supervision,*
> *(2) who is responsible for enforcing appropriate methods of conducting scientific experimentation, analysis, or chemical research to minimize such risks, and*

(3) who is responsible for the safety assessments and clearances related to the procurement, storage, use, and disposal of the chemical substance as may be appropriate or required within the scope of conducting a research and development activity."

[iv] Federal Register: May 12, 1997 (Volume 62, Number 91), advanced notice of proposed rulemaking with no further action taken by EPA.
https://www3.epa.gov/ttn/atw/resdev/fr12my97.txt
Also, EPA Stakeholders November 18, 1997, meeting minutes
https://www3.epa.gov/airtoxics/resdev/rd-meet.pdf

From: Lauren Powers
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Monday, September 5, 2022 9:15:24 AM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Lauren Powers
[redacted]

From: MARA BAILEY
To: Benjamin Hartung
Subject: Amendments to AMR VI
Date: Friday, September 9, 2022 11:15:40 PM

Mr. Hartung,

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even remove the prohibition on toxic emissions exceeding permit limits and no longer require the polluter to tell the Health Department when the toxic emissions will -or did- begin.

Over 93% of permitted facilities would now be exempt from the obligation to report their toxic emissions to the Health Department because of five newly added exemptions in Amendments to AMR VI "Noticing Section." Only Title V (major) facilities have the obligation, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know about the poisonous substances being put into their neighborhood air from permitted facilities. AMR VI should clearly mandate that the “type and quantity” of all toxic air contaminants from any facility requiring a permit must be included in the facility’s public notice. It would bring AMR VI into compliance with PA State Code Title 25, Chapter 127, section 45, which Philadelphia is obligated to follow. The City Health Department must be aware that its own Air Management Regulation XIII adopts PA State Code Title 25, Chapter 127 in its entirety.

The former PES Refinery is no longer permitted as a major source. New exemptions would allow Sunoco Evergreen cleanup operations and HILCO, the new owner, to not monitor or report highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground. SEPTA's gas plant in Nicetown is a synthetic minor source and would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. With the new exemptions, it’s unclear whether the next stack test at that facility would stop testing for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, would perform the assessment. This is backwards, an obvious conflict of interest.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,
Mara Bailey

[redacted]

Sent from my iPad

From: Marcus Ferreira
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Monday, September 5, 2022 8:55:42 AM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Marcus Ferreira
[redacted]

Philadelphia Regional Center for Children's Environmental Health

A program of:

Penn
University of Pennsylvania

Children's Hospital of Philadelphia℠

September 9, 2022

Dear Members of the Air Pollution Control Board:

The Philadelphia Regional Center for Children's Environmental Health (PRCCEH) would like to thank the Air Pollution Control Board for the opportunity to submit comments regarding Amendments to Air Management Regulation VI: Control of emissions of toxic air contaminants. I am Dr. Marilyn Howarth, an Occupational and Environmental Medicine physician and Deputy Director of the PRCCEH.

The new Philadelphia Regional Center for Children's Environmental Health is a collaboration between the University of Pennsylvania and Children's Hospital of Philadelphia, one of only six Centers funded by the National Institute of Environmental Health Science (NIEHS) in the US. We are physicians and scientists working to improve children's environmental health by reducing environmental exposures in early life by applying science to policy, practice and behavioral changes.

Ambient exposure to air toxics in Philadelphia has the potential to produce both cancer and non-cancer adverse health impacts. The Centers for Disease Control (CDC) reports that 479 people in every one hundred thousand in Philadelphia developed cancer compared with 439 in the US (NCI) and 458 in PA (PA County Health Profile). In Philadelphia, the rates of cancer are higher than Pennsylvania rates in colon and rectal cancer, lung cancer, kidney cancer and prostate cancer. Several of these cancers are caused by toxic air emissions.

Asthma hospitalization rates are three times higher in Philadelphia than statewide rates according to the Pennsylvania Department of Health. The Asthma & Allergy Foundation of America 2021 ranking places Philadelphia as the 7th highest urban region in the US. Also elevated are Philadelphia's rates of hospitalization for heart attacks and chronic obstructive pulmonary disease. These significant health disparities occur in a city whose medical care is considered to be among the best in the country. Certainly, there are many contributors to each of these health outcomes; however, air toxic **exposures** are known contributors to these important health outcomes in Philadelphia, a City where the majority of the population is in the top quartile of the CDC's Environmental Justice index.

We applaud Air Management Services for their work on the proposed amendment which would consider cancer and non-cancer endpoints in an expanded risk assessment process for air toxics in the permitting of large industrial facilities. We recognize that regulation of this magnitude and scope will certainly require further analysis as additional data becomes available over time. The proposed regulation has

several areas that are submaximally protective of human health. In particular, the proposed model does not include considerations of the accumulated impact of multiple industries' emissions of air toxics. The methodological science in this area is developing and in the coming years proven methods for both aggregate and cumulative risk assessment measures should be used in the permitting process. The data collected through the proposed amendment will position Philadelphia well to apply new methods to better protect the public's health as they become available.

We recommend one important procedural modification to the proposed amendment. Public access to the data collected through this amendment is described in Section IV B. Availability of Information:

1. "Information obtained from reporting forms submitted to and verified by the Department shall be correlated with applicable emission guidelines, standards, limitations, or control measures established by the Department. **All such emissions data shall be available for public inspection at the Department during normal business hours.**
2. Any records, reports, information, or particular part thereof, other than emissions data, relating to secret processes, methods of manufacture or production, or otherwise entitled to protection as trade secrets, provided to, required or obtained by the Department shall be kept confidential."

Requiring the public to physically go to AMS to view the data during business hours is onerous and not in keeping with Philadelphia's Open Data and Government Transparency Executive Order (https://gist.github.com/PhillyCDO/3623582). This executive order requires "The open format will provide data in a form that can be retrieved, downloaded, indexed, searched and reused by commonly used web search applications and software. Such information shall, subject to legal and practical restrictions and to the City's Social Media Use Policy, be made available to the public without restrictions that would impede re-use of the information."

Data in a user-friendly format encourages active citizen participation and promotes a culture of governmental transparency that yields a more engaged and knowledgeable citizenry. We recognize that certain information considered as trade secrets would be excluded from public disclosure, but the majority of the data collected will not be considered trade secret and should be made available in a format that can be analyzed and interpreted. Our mission involves engaging people around science that impacts their health. We view data access as a critically important component of our work with environmental justice communities in Philadelphia. To promote trust and transparency, Environmental Justice communities need to have unfettered access to data in a format that allows for analysis. Anything less than open data access represents a barrier to full public participation in governance perpetuating the information divide, a major component of environmental racism in Philadelphia. Air Management Services has taken a major step forward from the regulatory and policy perspective with this proposed amendment. We urge AMS not to leave doubt in the community's mind that

secrets are being kept through data that is not readily available to a deeply concerned public.

Respectfully submitted,

Marilyn V. Howarth, MD, FACOEM
Philadelphia Regional Center for Children's Environmental Health
Center of Excellence in Environmental Toxicology
Perelman School of Medicine
University of Pennsylvania

From: Marlena Santoyo
To: Benjamin Hartung
Subject: It"s A Matter of Survival
Date: Thursday, September 8, 2022 12:37:43 AM

Marlena Santoyo
[redacted]

It's A Matter of Survival

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even remove the prohibition on toxic emissions exceeding permit limits and no longer require the polluter to tell the Health Department when the toxic emissions will -or did- begin.

Over 93% of permitted facilities would now be exempt from the obligation to report their toxic emissions to the Health Department because of five newly added exemptions in Amendments to AMR VI "Noticing Section." Only Title V (major) facilities have the obligation, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know about the poisonous substances being put into their neighborhood air from permitted facilities. AMR VI should clearly mandate that the “type and quantity” of all toxic air contaminants from any facility requiring a permit must be included in the facility’s public notice. It would bring AMR VI into compliance with PA State Code Title 25, Chapter 127, section 45, which Philadelphia is obligated to follow. The City Health Department must be aware that its own Air Management Regulation XIII adopts PA State Code Title 25, Chapter 127 in its entirety.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) Therefore, unreported emissions of most permitted facilities in Philadelphia would apparently disappear from the records that the State receives from the City, and which the State has maintained.

The former PES Refinery is no longer permitted as a major source. New exemptions would allow Sunoco Evergreen cleanup operations and HILCO, the new owner, to not monitor or report highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground. SEPTA's gas plant in Nicetown is a synthetic minor source and would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. With the new exemptions, it’s unclear whether the next stack test at that facility would stop testing for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, would perform the assessment. This is backwards, an obvious conflict of interest. If a risk mitigation plan is required, again the polluter, not the Health Department, would develop mitigation plans and even include their cost-benefit analysis for approval of the Department. The City’s Health Department should be directly accountable to the public, take full responsibility for calculating health risks and create mitigation plans. Those health risk assessments and mitigation plans should be publicized in plenty of time to include any concerns and objections during permit plan approval public comment periods. Keeping health risk assessments and mitigation plans "on file at the Department,” not even on the Department's website, would be inadequate public notice.

Exemptions for health risk assessments are written into the Technical Guidance Document, Appendix B.

The most striking is for major sized gas burning facilities up to 50 million BTU/hour, because 50 million BTU/hr. is almost twice the size of the threshold for a major source. The Technical Guidance document prefaces this exemption with the statement that Air Management Services determined a facility this large would have minimal toxic emissions, with no explanation. However, PA code Title 25, Chapter 127.36(c) requires an explanation. "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All health risk exemptions in Appendix B should be eliminated.

Scientists and nonscientists understand that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department created new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document. The calculations are highly questionable. One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxins flagged by California Air Toxics Program as too poisonous to even have a threshold. Another flag is that more than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, while only 8 of Philadelphia's are lower than New Jersey's. 93 are the same. Who is using up to date science and accurate math? Why are Philadelphia's calculations not explained, as required by Chapter 127.36(c)?

Perhaps the most shocking show of disdain for the health of Philadelphia's residents is in The Technical Guidance document. It establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. The Department knows that Philadelphia has never been in EPA compliance for ground ozone and is the large-city capital for asthma. The Department is aware that most of Philadelphia is designated as environmental justice neighborhoods and that their own published disease and mortality levels in the city correlate to air pollution levels. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for human beings living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better. This is serious. It's a Matter of Survival !

Sincerely,

Marlena Santoyo
WILPF, Women's International League for Peace and Freedom, Greater Philadelphia Branch

From: Mary Fox
To: Benjamin Hartung
Subject: Concerns re: Philadelphia air quality
Date: Friday, September 9, 2022 5:17:25 PM

Mr. Hartung:

As a Philadelphia resident, who lives and works in the City, not to mention is also raising 4 boys in the City, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even remove the prohibition on toxic emissions exceeding permit limits and no longer require the polluter to tell the Health Department when the toxic emissions will -or did- begin.

My children all attend the Wissahickon Charter School, located on Wissahickon Ave, directly across the street from the proposed new Nicetown gas plant. The amount of pollutants that will be released into the air once that is up and running will pose serious risks to the health of my children and their classmates, especially my son who is asthmatic...not to mention the many residents of Nicetown who will have to breathe that in on a continuous basis.

Over 93% of permitted facilities would now be exempt from the obligation to report their toxic emissions to the Health Department because of five newly added exemptions in Amendments to AMR VI "Noticing Section." Only Title V (major) facilities have the obligation, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know about the poisonous substances being put into their neighborhood air from permitted facilities. AMR VI should clearly mandate that the “type and quantity” of all toxic air contaminants from any facility requiring a permit must be included in the facility’s public notice. It would bring AMR VI into compliance with PA State Code Title 25, Chapter 127, section 45, which Philadelphia is obligated to follow. The City Health Department must be aware that its own Air Management Regulation XIII adopts PA State Code Title 25, Chapter 127 in its entirety.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) Therefore, unreported emissions of most permitted facilities in Philadelphia would apparently disappear from the records that the State receives from the City, and which the State has maintained.

The former PES Refinery is no longer permitted as a major source. New exemptions

would allow Sunoco Evergreen cleanup operations and HILCO, the new owner, to not monitor or report highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground. SEPTA's gas plant in Nicetown is a synthetic minor source and would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. With the new exemptions, it's unclear whether the next stack test at that facility would stop testing for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, would perform the assessment. This is backwards, an obvious conflict of interest. If a risk mitigation plan is required, again the polluter, not the Health Department, would develop mitigation plans and even include their cost-benefit analysis for approval of the Department. The City's Health Department should be directly accountable to the public, take full responsibility for calculating health risks and create mitigation plans. Those health risk assessments and mitigation plans should be publicized in plenty of time to include any concerns and objections during permit plan approval public comment periods. Keeping health risk assessments and mitigation plans "on file at the Department," not even on the Department's website, would be inadequate public notice.

Exemptions for health risk assessments are written into the Technical Guidance Document, Appendix B. The most striking is for major sized gas burning facilities up to 50 million BTU/hour, because 50 million BTU/hr. is almost twice the size of the threshold for a major source. The Technical Guidance document prefaces this exemption with the statement that Air Management Services determined a facility this large would have minimal toxic emissions, with no explanation. However, PA code Title 25, Chapter 127.36(c) requires an explanation. "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All health risk exemptions in Appendix B should be eliminated.

Scientists and nonscientists understand that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department created new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document. The calculations are highly questionable. One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxins flagged by California Air Toxics Program as too poisonous to even have a threshold. Another flag is that more than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, while only 8 of Philadelphia's are lower than New Jersey's. 93 are the same. Who is

using up to date science and accurate math? Why are Philadelphia's calculations not explained, as required by Chapter 127.36(c)?

Perhaps the most shocking show of disdain for the health of Philadelphia's residents is in The Technical Guidance document. It establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. The Department knows that Philadelphia has never been in EPA compliance for ground ozone and is the large-city capital for asthma. The Department is aware that most of Philadelphia is designated as environmental justice neighborhoods and that their own published disease and mortality levels in the city correlate to air pollution levels. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for human beings living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better. Please listen to voices like mine...the voices of people who are trying to raise families in this city in the most healthy way possible.

Sincerely,

Mary Fox

From: M V
To: Benjamin Hartung
Subject: Comment on AMR VI Regulation Amendment
Date: Friday, September 9, 2022 11:10:59 AM

Dear Mr. Hartung,

I am in support of the following comments from NAGP for amending AMR VI.

Thank you,

Matt Vrazo

1. Eliminate Section IIC, "Exemptions" in the Amended AMR VI document. (The Exemptions section lists permitted facilities that do not have to report their toxic emissions to the Health Department.) 93% of facilities operating today, the non-"major" plants, would be exempt! The public will not be informed of those emissions if the Health Department has no record of them. The public's right to know about all emissions from permitted facilities is protected in State Code Title 25 Chapter 127!

2. The Health Department, not the polluter, needs to perform health risk assessments and mitigation plans.

3. Reinstate the original paragraph that prohibited a facility from emitting more than the approved toxic emissions. Why have a permit that does not need to be enforced?

4. Eliminate the health risk exemption for large major sized gas burning facilities. The natural gas industry must be just as responsible to public health as any other industry.

5. Pause on the thresholds list (amounts of toxins considered safe.) Work with experts from our City's universities to recalculate what is safe, or at least use New Jersey's thresholds, many of which are more protective.

6. Look at the cumulative impacts of all the toxins coming from a facility. Looking at each poison, one by one, and not even adding them up is useless.

7. We can't accept more cancer! Lower the benchmark for "undue cancer risk" from 100 to 10 in 1 million. Your benchmark of 100 in 1 million is more than twice the current cancer risk rate in Philadelphia!

From: Neely Tang
To: Benjamin Hartung
Subject: Amendments to AMR VI
Date: Friday, September 2, 2022 10:41:31 AM

Dear Mr. Hartung,

I appreciate the desire to bring business to Philadelphia in service of the city's needs, however, with all the environmental issues we face now, we need to be more responsible for our children's futures. Please consider these amendments to the AMR VI and Technical Guidelines for AMR VI.

Sincerely,
Neely Tang
[redacted]

1. Remove the five exemptions to facilities required to report their toxic emissions to the Health Department in amendments to AMR VI. The worst exemption is #(4)- all facilities except for "Title V"(major sources). 93.7% of facilities with permits to pollute would not have to report their toxics, including synthetic minors which have the capacity to operate as major sources. There's no mention that AMS will calculate toxics on their own, or put them in permits, or publish them. (See background.)

> **pages 8-9 SECTION II , NOTICE REQUIREMENTS, Subsection C, Exemptions**
>
> "Facilities seeking permits or licenses for the following sources or activities, as required by Air Management Code or any regulation promulgated thereto, are exempted from the notice requirements set forth in this Section."
>
> (4) Operation of a facility pursuant to a permit for non-Title V sources issued by the Department pursuant to 25 Pennsylvania Code Chapter 127, Subchapter F as adopted by reference in Air Management Regulation XIII.

2. All applicants for air contamination permits should have to list the toxics emissions including their amounts. Additionally, the applicant should reveal the date when emissions are to begin.

> **page 7 SECTION II Notice Requirements A. Notice of Emission (4)(1)**
>
> (4)**(1)** Notice shall include a list identifying **be made on a form as prescribed**

by the Department, and may require applicants to identify the toxic air contaminants emitted; the associated areas or operations within the facility from which the toxic air contaminants are emitted; **and provide** estimates of the maximum hourly, daily and annual emission rates for each toxic air contaminant emitted from the specified areas or operations within the facility; and the date when the emission of each toxic air contaminant began or is expected to begin. **facility."**

3. The Health Department, not the polluter must do health risk assessments! Otherwise, there is a conflict of interest. The applicant for an air contamination permit can simply pay a set fee to compensate the time spent by Health Department staff.

page 10. SECTION III. REGISTRATION, REVIEW AND APPROVAL REQUIREMENTS C. CONDITIONS OF APPROVAL (2)

"(2) **The Department shall require the applicant for any permit or license for any source of toxic air contaminants affected by this Regulation to submit an assessment of health risk or hazard if the source has the potential to emit at least one toxic air contaminant in an amount above reporting thresholds established in the Department's guidelines. Assessments of health risk or hazard shall be compiled using the Risk Screening Workbook attached as Exhibit C. Exhibit C may be updated at the discretion of the Department."**

4. Reinstate the original AMR VI paragraph prohibiting a facility from emitting more than the approved toxic emissions!

page 11 (bottom) SECTION III C. CONDITIONS OF APPROVAL

(3) In approving an installation permit or operating license for any facility to emit or discharge a toxic air contaminant, the Department shall specify the maximum allowable emission rates and the other conditions under which approval is granted. Any increase in emissions over the approved maximum allowable emission rates, without first obtaining approval from the Department is prohibited.

5. Remove the exemption in Appendix B of the Technical Guidance document for large major sized gas burning facilities up to 50 million BTU/hr. Health risk assessments should be required for all facilities, especially major plants! see background

page 23: Appendix B. TOXIC AIR CONTAMINANT EMISSION SOURCES THAT DO NOT REQUIRE A RISK ANALYSIS

(iv) Boilers and heaters with no more than 50 million BTU per hour capacity, burning only natural gas, and with an exhaust stack at least 20-foot tall and at least 10 feet away from the facility property line.

6. New thresholds for toxics, as listed in the Technical Guidelines from pps 3 -10, are questionable. The Health Department should do a transparent peer review process in order to make adjustments. “Threshold” means that emissions below the threshold are deemed to be no threat to public health. We question the science behind these calculations. The California Air Toxics Program flags a list of toxins too poisonous to have a threshold, and there is a huge range of AMS thresholds for these same substances, from 0.007 lbs to 2000 lbs/year. See background for the list.

7. We support the 7 recommendations made by Earth Justice and Clean Air Council in their 29 page comment.

The undue health risk benchmark of 100-in-a-million could allow another refinery sized or larger source to operate without requiring mitigation. The cancer risk guideline benchmark for undue health hazard of 100-in-1 million must be reduced to 10-in-1-million, unless the Department assesses all cumulative health risks as described in the EJ/CAC comments, in which case it can be 25-in-1million. (see background)

AMR VI and the Technical Guidelines must add comprehensive provisions for public input on the health risk assessments and risk mitigation plans as described in the comments. (see background)

The Board should commit to review and revise these regulations every 5 years, with advanced public notice and a 30 day comment period.

AMS should use readily available scientific methods for calculating cumulative impacts in health risk assessment.

Risk Mitigation plans must ensure pollution reduction and control. “Case-by-case review” should not occur unless it is clearly defined. Solid and transparent benchmarks for mitigation action are needed to protect public health. Acceptable standards for mitigations should be defined and monitored with mandated consequences if the plan is not followed. More mitigation strategies should be added to the suggested list.

Exceptions to the rule are not justified and should be eliminated because exempted facilities could most harm public health.

The health department is obligated to use its mandate and authorization to protect public health in accordance with city code and Article 1, section 27 of the PA Constitution- "...The people have the right to breathe clean air..."

BACKGROUND

Exemptions in AMR VI for Noticing of Toxic Air Contaminants:

AMS has a track record of not listing toxics in public notices for minor plants, which breaks 25 PA State Code Chapter 127.45 State code requires toxic emissions to be public knowledge. AMS has justified not following this part of state code using an outdated city exemption for All fuel burning facilities. However, city regulations are only allowed to be more stringent, not less

stringent than state environmental codes. In the AMS Revised Technical Document for SEPTA's gas plant project in Nicetown, AMS admitted this justification on p6, under the heading "Evaluation of HAP Emissions, Air Toxics"

> "*An analysis of the HAP Emissions vis a vi Air Management Regulation (AMR) VI, governing Toxic Air Contaminants, was not required for the CHP project because emissions generated from sources that combust commercial fuel, like natural gas, are exempt. See AMR VI. § II.C."*

Examples of synthetic minor sources which are spewing toxics into lungs, onto sidewalks, gardens, and any surface today:

Benzene at above EPA threshold levels is bubbling up from underground pools and emitting from equipment remaining on site at the defunct PES Refinery property and leaching beyond it. Clean up activities there now have "synthetic minor source" permits. The exemption for "minor sources" would remove the obligation for the facility to report benzene emissions at the property and AMS could choose not to monitor that. The public won't have access to the information unless the EPA or PA DEP (PA Department of Environmental Protection) provides it.

SEPTA's gas plant in Nicetown is a "synthetic minor" and toxics are listed in its permit. In April 2022, EPA cited SEPTA's gas plant for flunking a "stack test" for non methane hydrocarbon VOCs, which contain many toxic contaminants. A correction must have been made because EPA did not issue another citation in June. Stack tests are conducted by AMS (Philadelphia Department of Health) to make sure emissions are within the limits of the permit. We do not know whether toxics be included in permits if "minor plants" do not have to give notice of them.

5. Exemptions in Technical Guidance Document for health assessments

50 million BTU/hr. is a large major sized facility. 29 million BTU/hr is the approximate threshold for major size. In the (fracking) state of PA, there is a noticing exemption for gas burning facilities up to 10 million BTU/hr. This means that PA recognizes the importance of toxics in facilities larger than 10million BTU/hr.

6. Thresholds in Technical Documents: These toxins are flagged by California Air Toxics Program. The AMS thresholds in pounds/year are after each toxin.

Asbestos 0.007 lbs, Benzene (C_6H_6) 7 lbs, 1,3-Butadiene (C_4H_6) 1.8 lbs, Carbon tetrachloride(CCl_4; tetrachloromethane) 9 lbs, chloroform ($CHCl_3$) 2.3 lbs, Dibensonfuran 1000 lbs, Ethylene Dibromide ($BrCH_2CH_2Br$; 1,2-dibromoethane) 0.09 lbs, Ethylene Dichloride ($ClCH_2CH_2Cl$; 1,2-dichloroethane) 2 lbs, Ethylene Oxide (1,2-epoxyethane) 0.01 lbs, Formaldehyde (HCHO) 4 lbs, Methylene Chloride (CH_2Cl_2; Dichloromethane) 2000 lbs, Perchloroethylene (C_2Cl_4; Tetrachloroethylene) 9 lbs, Trichloroethylene (CCl_2CHCl; Trichloroethene) 10 lbs, Vinyl chloride (C_2H_3Cl; Chloroethylene) 6 lbs, Inorganic Arsenic (arsenic compounds) 0.01 lbs, Cadmium (metallic cadmium, cadmium compounds) (cadmium

oxide) 0.01lbs, Hexavalent chromium (Cr (VI)) 0.0045 lbs, Inorganic Lead 2 lbs, Nickel (metallic nickel and inorganic nickel compounds) 0.2 lbs

7. Notes on Earth Justice/Clean Air Council recommendations:

The cancer risk benchmark of 100-in-1 million allows for more than twice the risk currently existing in Philadelphia: US EPA AirToxScreen puts Philadelphia cancer risk from air pollution between 30 and 40 in a million. In 2011, the EPA National Air Toxics Assessment in 19140 (Nicetown) found that cancer risk was 49 in a million.

(Technical Guidelines, page 13. C. Table 2. Cancer Risk Guidelines for New or Modified Sources)

Public input: Neither the amended AMR VI nor AMR VI Technical Guidelines mandate public input on health risk assessments or risk mitigation plans. No required public meetings, no process described for a public challenge to a permit that causes excessive risk or to an AMS decision to waive a risk assessment or mitigation. The public needs to be provided with the necessary information in a timely manner to make informed decisions.

From: P R
To: Benjamin Hartung
Subject: Amendments to Air Management Regulation VI
Date: Friday, September 9, 2022 2:59:59 PM

Mr. Hartung,

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even eliminate the prohibition on toxic emissions exceeding permit limits and cancel the obligation for a polluter to say when the toxic emissions will -or did- begin.

In Amendments to AMR VI "Noticing Section," there are five exemptions. Over 93% of permitted facilities are exempt from the obligation to report their toxic emissions to the Health Department. Only Title V (major) facilities would be obligated, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. Chapter 127 Title 25 Pennsylvania Code legally requires that every permitted air pollution source, whether minor or major, must give public notice of the type and quantity of all air contaminants emitted, with an exception for small gas burning boilers up to 10 million BTU/hr. The City's own Air Management Regulation XIII adopts Chapter 127 Title 25 PA Code.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non-Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) The unreported emissions of most permitted facilities in Philadelphia will apparently disappear from the records that the State receives from the city, and which the State has maintained.

At the former PES Refinery, which is no longer permitted as a major source, Sunoco Evergreen cleanup operations and HILCO, the new owner, would be exempt from reporting highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground, that formed during 150 years of refining petroleum. A synthetic minor source, like SEPTA's gas plant in Nicetown, would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non- methane VOC emissions. If toxics are not listed for a facility, a stack test may not test for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, is to complete the assessment. This is backwards due to an obvious conflict of interest. When a risk mitigation plan is to be made, again the polluter develops this plan and even includes their own cost-benefit analysis for the Health

Department. But the Health Department should be directly accountable to the public and take full responsibility for calculating health risks and for creating mitigation requirements. The public has the right to be fully informed about health risk assessments and mitigation plans in plenty of time to comment on them, as part of public comments on permit plan approvals. Keeping health risk assessments and mitigation plans "on file" at the Department, not even on the Department's website, does not count as informing the public.

Loopholes for health risk assessments were written into the Technical Guidance Document, Appendix B as exemptions. Of the 4 exemptions, the most striking is for major sized gas burning facilities up to 50 million BTU/hr. 50 million BTU/hr. is almost twice the size of the threshold for a major source. The document states that Air Management Services determined a facility this large would have minimal toxic emissions, but there is no explanation even though one is required by Chapter 127.36(c) Title 25 PA Code: "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All four health risk exemptions should be eliminated.

Scientists and nonscientists can see that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department science used to create new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document is highly questionable and . One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxics flagged by California Air Toxics Program as too toxic to even have a threshold. More than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, and only 8 of Philadelphia's are lower than New Jersey's. 93 are the same and some are not comparable because they are not found in both State's lists. Who is using science and math correctly and why are the calculations not explained, as required by Chapter 127.36(c) Title 25 PA Code?

The Technical Guidance document establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. We are already known as the large-city capital for asthma. The Health Department should be aware that most of Philadelphia is designated as environmental justice neighborhoods and that current and their own published disease and mortality levels correlate to air pollution levels in our city. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for the human beings living here.

The Health Department is funded by the public and has a mandate to protect public health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,

Pamela Roy
[redacted]

From: Cheryl Bettigole
To: Benjamin Hartung
Subject: FW: POWER Comment on Amendment to Air Management Reg VI.
Date: Friday, July 29, 2022 3:21:25 PM

FYI – could you add this to the public comments on AMR VI?

From: Julie Greenberg [redacted]
Sent: Friday, July 29, 2022 3:13 PM
To: Cheryl Bettigole <Cheryl.Bettigole@Phila.gov>
Subject: POWER Comment on Amendment to Air Management Reg VI.

POWER Comment on Amendment to Air Management Regulation VI: Review of Health Impacts from New Sources of Toxic Air Contaminant (TACs)

"It is IMPERATIVE that air quality be a primary issue regardless of institutional racism, economic position or any other 'ism'. Otherwise, we are ALL doomed!"
Frances Upshaw, POWER Interfaith Leader

"I have elderly parents, I have a one year-old grandbaby. Does anybody want their loved ones breathing toxins?"
Bishop Dwayne Royster, POWER Interfaith Executive Director

This amendment improves on the previous regulation by more than doubling the number of hazardous air pollutants (HAPs) that are now included. While this is a positive change, this regulation should also take into account the cumulative impact of exposure to multiple hazardous air pollutants and the cumulative impact of nearby sources that emit the same pollutants. In particular, the facility-wide health risk assessment should be expanded to include all air toxics emitted from all air pollution from all nearby sources instead of just within the facility. AERSCREEN and AERMOD modeling should also take into account emissions from nearby facilities. Apart from modeling, we would also like to see more AMS continuous monitoring sites that sample hazardous air pollutants and ultrafine particles across Philadelphia, in order to develop a better understanding of ambient conditions, transient events, and the potential impact of new facilities.

In addition to the assessment of cumulative impacts we would also like to see per- and polyfluoroalkyl substances - collectively referred to as “PFAS” - and ultrafine particles included in the updated list of hazardous air pollutants and in cumulative risk assessments. Ultrafine particles have the ability to enter the bloodstream and cross the blood-brain barrier leading to numerous adverse health effects including cardiovascular and respiratory diseases. PFAS and ultrafine particles have been

linked to potential carcinogenic effects.

Philadelphia residents need to have access to information about risk assessments and other analyses performed on facilities in their neighborhoods.This rule should be updated more frequently as new scientific information becomes available on hazardous air pollutants. Residents shouldn't have to wait 40 years for regulations to catch up with science.
POWER Climate Justice and Jobs Team

Rabbi Julie Greenberg (All pronouns)
Director of Climate Justice and Jobs
POWER: An Interfaith Movement

215-843-9592
Join the movement! Join POWER TODAY!

powerinterfaith.org | | Facebook | Twitter

From: Rachael Salahub
To: Benjamin Hartung
Subject: Air Management Regulation: Please read!
Date: Friday, September 9, 2022 5:13:54 AM

Philadelphia Department of Health Members:

You are in a position of great power to ensure residents of Philadelphia, surrounding communities and visitors are breathing the safest air possible.
I am concerned because Air Management Regulation VI is not written to protect the public. I have made personal and professional commitments to Philadelphia and the surrounding areas. I, expect the Philadelphia Department of Health would be committed to providing a healthy environment for them to live in and raise their children. As members of the Philadelphia Health Department, your highest priority and focus must be that of people. You are not designees of industry prosperity nor should you be beholden to industry demands.
You must be aware of our Pennsylvania Environmental Rights Amendment, Article 1, Section 27, which unequivocally states:
The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.
Therefore:
1. Retract the 5 industry reporting exemptions for toxic emissions. It will allow over 97% of these facilities to non-report toxic air emissions.
2. As guardians of the health of Philadelphia residents, the Philadelphia Department of Health must necessarily and solely perform health risk assessments of industry pollutants.
3. Reinstate the paragraph which prohibited a facility from emitting pollutants above toxic thresholds for humans and the environment.
4. No health risk assessment exemptions for major large sized gas burning facilities.
5. Reliable science must be utilized to determine toxic thresholds for humans, animal species and the environment.
6. Aggregate and cumulative health impacts of toxic emissions from a facility combined with background ambient pollution must be assessed and used as determinants for granting permits.
7. Do not allow a dangerously high benchmark for "undue cancer risk" which is more than twice the current risks in Philadelphia today.
It is incumbent upon you to serve the health of people and not jeopardize or harm their health or the health of the environment to accommodate industry pollution.
Thank you for your service to your fellow Philadelphians and for giving highest priority to all non-industry comments.

Rachael Salahub
[redacted]

From: Roberta Camp
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Saturday, August 6, 2022 12:44:44 PM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect their community. AMS should explicitly provided for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Roberta Camp
[redacted]

From: Rosemary Barbera
To: Benjamin Hartung
Subject: Proposed Amendments to AMR VI
Date: Wednesday, September 7, 2022 11:48:33 AM

As a Philadelphia resident, I'm concerned and disappointed that newly proposed Amendments to AMR VI endanger public health and decrease the amount of information available to the public about toxic pollution. The amendments even eliminate the prohibition on toxic emissions exceeding permit limits and cancel the obligation for a polluter to say when the toxic emissions will -or did- begin.

In Amendments to AMR VI "Noticing Section," there are five exemptions. Over 93% of permitted facilities are exempt from the obligation to report their toxic emissions to the Health Department. Only Title V (major) facilities would be obligated, and some of those have loopholes.

It is completely unacceptable for the public to have no way to know which toxins are being put into their neighborhood from permitted facilities. Chapter 127 Title 25 Pennsylvania Code legally requires that every permitted air pollution source, whether minor or major, must give public notice of the type and quantity of all air contaminants emitted, with an exception for small gas burning boilers up to 10 million BTU/hr. The City's own Air Management Regulation XIII adopts Chapter 127 Title 25 PA Code.

Amended AMR VI does not state that the Health Department will calculate toxic emissions for non Title V facilities, or send those calculations to the PA DEP (Pennsylvania Department of Environmental Protection.) The unreported emissions of most permitted facilities in Philadelphia will apparently disappear from the records that the State receives from the City, and which the State has maintained.

At the former PES Refinery, which is no longer permitted as a major source, Sunoco Evergreen cleanup operations and HILCO, the new owner, would be exempt from reporting highly carcinogenic benzene gas which is leaching from refinery equipment as it is disassembled and from pools of liquid benzene under the ground, that formed during 150 years of refining petroleum. A synthetic minor source, like SEPTA's gas plant in Nicetown, would be exempt from reporting its toxic emissions, even though SEPTA's plant was cited in April 2022 (EPA ECHO website) for failing a stack test for non methane VOC emissions. If toxics are not listed for a facility, a stack test may not test for toxics. All five exemptions should be thrown out.

For the facilities that require a health risk assessment, the polluter, not the Health Department, is to complete the assessment. This is backwards due to an obvious conflict of interest. When a risk mitigation plan is to be made, again the polluter develops this plan and even includes their own cost-benefit analysis for the Health Department. But the Health Department should be directly accountable to the public and take full responsibility for calculating health risks and for creating mitigation

requirements. The public has the right to be fully informed about health risk assessments and mitigation plans in plenty of time to comment on them, as part of public comments on permit plan approvals. Keeping health risk assessments and mitigation plans "on file" at the Department, not even on the Department's website, does not count as informing the public.

Loopholes for health risk assessments were written into the Technical Guidance Document, Appendix B as exemptions. Of the 4 exemptions, the most striking is for major sized gas burning facilities up to 50 million BTU/hr. 50 million BTU/hr. is almost twice the size of the threshold for a major source. The document states that Air Management Services determined a facility this large would have minimal toxic emissions, but there is no explanation even though one is required by Chapter 127.36(c) Title 25 PA Code: "In developing health risk based emission standards or operating practice requirements, the Department will provide a rationale and explanation for the standards or requirements." In summary, this exemption specifically benefits the natural gas industry, not public health. All four health risk exemptions should be eliminated.

Scientists and nonscientists can see that the Amended AMR VI method for calculating health risks is not useful because it vastly underestimates the risks. It's common sense that all toxins coming from a facility should be looked at together, not one by one to see if each one in isolation exceeds a threshold. Modern methods for calculating aggregate and cumulative risks of toxic exposures are readily accessible science and are regularly used by the EPA. Please heed the full recommendations of Earth Justice and Clean Air Council on assessing health risks.

The Philadelphia Health Department science used to create new thresholds, or acceptable emissions, for toxins in the Technical Guidance Document is highly questionable and . One red flag is the huge range of thresholds, from 0.007 lbs. to 2000 lbs./year, for 18 toxics flagged by California Air Toxics Program as too toxic to even have a threshold. More than half (99) of New Jersey's thresholds are lower (more protective) than the new Philadelphia thresholds, and only 8 of Philadelphia's are lower than New Jersey's. 93 are the same and some are not comparable because they are not found in both State's lists. Who is using science and math correctly and why are the calculations not explained, as required by Chapter 127.36(c) Title 25 PA Code?

The Technical Guidance document establishes a dangerously high benchmark for "undue cancer risk" of 100-in-1-million. This is more than twice the current cancer risk in Philadelphia today. It would welcome huge industrial polluters like refineries or ethane cracker plants into our densely populated city. We are already known as the large-city capital for asthma. The Health Department should be aware that most of Philadelphia is designated as environmental justice neighborhoods and that current and their own published disease and mortality levels correlate to air pollution levels in our city. If the Health Department is ready to double the cancer rate in Philadelphia, it indicates no empathy for the human beings living here.

The Health Department is funded by the public and has a mandate to protect public

health. If that mandate is beyond the skills of the current staff or the will of the department, then the public deserves better.

Sincerely,

--
Rosemary A. Barbera, Ph.D., MSS
she/her/hers

Member - National Steering Committee of the Social Welfare Action Alliance
socialwelfareactionalliance.org
http://www.lasalle.edu/social-work
https://www.facebook.com/LaSalleSocialWork
swcares.org

"When we revolt it's not for a particular culture. We revolt simply because, for many reasons, we can no longer breathe." Frantz Fanon
"Cuando nos rebelamos no es por una cultura específicamente. Nos rebelamos simplemente porque, por muchas razones, ya no podemos respirar." Frantz Fanon

PHILADELPHIA SHIP REPAIR

Via Electronic Mail August 8, 2022

Mr. Benjamin Hartung, Public Policy Advisor
City of Philadelphia
Air Management Services Program
Spelman Building
321 S. University Avenue
Philadelphia, PA 19104
Benjamin.hartung@phila.gov

RE: COMMENTS TO PHILADELPHIA AIR MANAGEMENT SERVICES PROPOSED CHANGES TO REGULATION VI

Dear Mr. Hartung:

Philadelphia Ship Repair (PSR) appreciates the opportunity to provide comments/questions for Philadelphia Air Management Services (AMS) proposed changes to Regulation VI, which govern release of "toxics" into the atmosphere from facilities within AMS's jurisdiction and permit requirements. Our questions/comments are provided below.

AMS REGULATION VI COMMENTS/QUESTIONS

I. Description of PSR Operations

Philadelphia Ship Repair (PSR) operates a ship maintenance, repair, overhaul, and conversion service located at 5195 South 19th Street, Philadelphia, also known as Dry Dock 3 in the former Philadelphia Navy Shipyard (Shipyard) and is one of the two last operating dry docks at the former Shipyard. The facility services between three (3) and four (4) vessels per year but sometimes as many as six (6) vessels, with a limited scope of work. PSR is unique in that 95% of the vessels serviced are Military Sealift Command (MSC) vessels (i.e., United States Navy ships). Work on each vessel could involve major overhauls or lesser services including, but not limited to, maintenance of seals, sea valves, hubs, shaft bearing, propellers, thruster, and tanks.

It is important to note that periodic repainting of a vessel serves important environmental protection goals. Periodic repainting is necessary to prevent corrosion which shortens the life of the vessel and negatively impacts ship safety. In addition, the failure to re-coat a ship periodically can lead to water and air pollution due to corrosion. Properly maintained and painted vessels operate more efficiently, reducing fuel use and consequently emitting lower levels of carbon and other emissions, including particulates.

II. Operations at PSR are Already Subject to Multiple Levels of State-of-the-Art Pollution Control

A. Title V (Air) Operating Permit.

The facility is subject to, and complies with, a comprehensive Title V Operating Permit (Permit), No. OP18-000003.

Painting operations would be the activity most within the scope of the proposed rule (i.e., Air Management Services, Regulation VI). Painting and paint removal activities are already comprehensively regulated under the Title V Operating Permit (Permit) such that Particulate (PM) and volatile organic compounds (VOC) emissions are kept at the lowest level technically achievable. The permit regulates paints used, control devices, and work practices aimed at reducing emissions. Indeed, the Permit contains at least seven (7) separate conditions specifically relating to painting and removal operations. In addition, the Permit contains recordkeeping requirements to document compliance.

In terms of materials, control devices, and work practices, the operations of PSR are already "state-of-the-art" for PM and VOC controls and, in fact, exceed regulatory requirements. In accordance with the Permit, all areas below the top of the dry dock are tarped to shroud the hull of the ship during painting activities, which is aimed at minimizing, if not eliminating, PM emissions.

The Permit contains limits on the amount of paint thinner that can be added to paints to limit VOC emissions. The Permit imposes limits on the percentage of VOCs per gallon of paint, based on paint usage category. In fact, some of the limits match, or are more restrictive than, Pennsylvania Department of Environmental Protection (PADEP) Reasonably Available Control Technology (RACT) limits (see discussion below) listed in 25 PA Code Section 129.52, Table 1, Category 12 (Note: updated very recently in January 2022). The aforementioned shrouding of the ship hull also prevents paint overspray beyond the dry dock.

Painting primarily uses epoxy and anti-fouling paint, which means painting operations at PSR are more environmentally friendly than house painting or commercial building painting. *Importantly, all coatings (paint and epoxy) are provided by MSC, subject to their standards for operational efficiency and environmental stewardship. PSR reviews all paints and epoxies for compliance with the current Permit and requires an alternate MSC-approved coating which is compliant, on the rare occasions a non-compliant paint is provided.*

In addition, painting and paint removal is only a part of any ship service project. In 2021, the most recent full calendar year, three ships were in drydock for a total of two hundred eighty (280) days. Painting activities occurred on only seventy-four (74) days, or just 20% of the year. Each year is different, depending on the number of ships, the size of those ships, extensiveness of repair, etc. Typically, painting activities occur on fewer than one hundred twenty (120) days or less than one-third of the calendar year.

B. Pennsylvania's New RACT Rule Applicable to Shipbuilding and Ship Repair Surface Coatings Operations.

PADEP recently implemented new RACT regulations applicable to shipbuilding and ship repair operations as recently as April 2022. RACT is applicable to existing sources, not just new and modified sources. The purpose of these RACT regulations is to implement measures to control VOC emissions as precursors to ground-level ozone formulation. While ground-level ozone is not emitted directly by any ship repair operation, it can be formed by photochemical reaction between VOCs and sunlight. The new RACT Rule applicable to ship repair operations minimizes this effect.

In fact, the PSR facility had already been subject to AMS's RACT Rule, which has already been approved as a revision to the Commonwealth's SIP. Another facility in the City of Philadelphia is already subject to a Philadelphia Air Management Services regulation that has been approved as a revision to the Commonwealth's SIP.

As stated previously, the existing Permit requirements relative to VOC emissions permitted per gallon of various paint-types match or are more restrictive than the state-wide RACT requirements.

C. Federal MACT Requirements

The facility is already subject to the comprehensive federal MACT requirements set forth in CRF Title 40, Chapter I, Subchapter C, Part 63, Subpart II (source category "Shipbuilding and Ship Repair – Surface Coating") (40 CFR Section 63.780 – 63.789). In particular, this is the federal National Emission Standards for Hazardous Air Pollutants (NESHAP) program. The MACT Rule sets forth extensive requirements for control technology aimed at controlling emission of hazardous air pollutants (HAPs) (defined as "toxics" by AMS) to safe exposure limits with an ample margin of safety to protect public health.

In setting the limits under NESHAP for the shipbuilding and repair sector, the United States Environmental Protection Agency (USEPA) estimated cancer and non-cancer risks based on both actual estimated emissions and MACT-allowable emissions. Industry-wide, USEPA estimated that the MACT-allowable emissions from these facilities could be up to two (2) times greater than the actual emissions for some types of coatings used. Therefore, actual emissions are much lower, about half.

Based on the results from their risk analysis, USEPA concluded that risks from shipbuilding and ship repair, based on the higher MACT-allowable emissions, were acceptable with an ample margin of safety to protect human health as required by Clean Air Act (CAA). Therefore, USEPA found that the MACT standards were protective of health, which means that the actual emissions would be well within what is considered to be protective, and with a large margin of safety. PSR emissions are well below the MACT standard, thus the facility is well within what USEPA deems to already be very low risk. These facts show that additional regulations are not necessary for this industry sector and PSR, as emissions have been shown to be well within a margin of safety.

D. Best Management Practices.

The facility is also subject to and practices Best Management Practices (BMPs) with respect to painting and paint removal operations aimed at minimizing the amount of airborne emissions. Specifically, PSR has developed BMP No. 12.0 "Shrouding and Containment." This BMP states that, when performing painting operations on a vessel's hull, PSR places shrouds/tarps along the dry dock walls in order to contain paint particles. Paint removal activities is more often completed with the use of ultra-high-pressure (UHP) power washers. Shrouding/tarps are also used during paint removal activities when abrasives are used, which is not often. Shrouding activities minimize particles into the air and water by at least 90%, and is both industry standard and the most effective process available.

PSR uses vacuum technology and roller or brush painting for operational efficiency and environmental control. Monitoring boards are located at multiple positions which are covered with rigid plastic sheeting prior to each painting operation.

The shrouding of the ship occurs on a section-by-section basis where the work is actually occurring. As sections of the ship are subject to painting activities tarps are deployed over that section. Typically, the area enveloped in tarps is equivalent to what can be painted in 30 days. Tarps are inspected daily, during painting and removal operations.

By painting the ship in sections, tarps are deployed, removed, and re-deployed multiple times for each ship undergoing painting. This allows the team deploying the tarps two opportunities to perform a more thorough, up-close, visual inspection: during removal and re-deployment.

It should be noted that, as previously reported to AMS, the industry is moving away from removing old paint using abrasives to the more environmentally friendly use of UHP power washers.

E. Effects of Emissions by Neighboring Sources

The proposed regulation calls for the Department (i.e., AMS) to "review the existing air toxics concentrations surrounding the emissions source prior to approving or disapproving [a permit]." This is impractical and impossible to implement because there is no information or availability of information of this nature to the applicant or the AMS. Furthermore, the concept of "surrounding" area is not defined. This will create uncertainty for both the regulated community and AMS. Also, it is simply unfair and inappropriate for an applicant to be responsible for emissions of other surrounding operations over which the applicant has no control. Thus, this provision should be removed.

PSR's location, which is adjacent to multiple industrial, commercial, medical, research, and office facilities as well as vehicular, bus and river traffic, makes this provision particularly unfair and impossible to implement. All of these activities are emissions sources of a variety of pollutants. Many of these sources are unregulated and unpermitted. AMS should not penalize PSR for emissions whose responsibility belongs to other operators, whether commercial for-profit, non-profit, governmental, or individual. Any and all regulations applicable to PSR should be focused on PSR's operations and their direct impact on Philadelphia residents.

Given the fact that PSR's emissions occur on a limited number of days, are well under USEPA-determined and Pennsylvania-determined health safety limits and become highly dispersed and diluted before coming into contact with residential neighborhoods, we suggest that it is in the interests of public health to focus on reducing emissions from sources that most directly impact the people of Philadelphia.

III. National Security Concerns Should Be Taken Into Consideration

The PSR facility almost exclusively serves vessels of the MSC of the United States Navy. That means PSR is a facility of strategic national security importance and any curtailment or cessation of PSR's operations would be problematic to national security and the functions of the U.S. Navy.

As observed by famous Naval historian, retired U.S. Navy Commander Thomas B. Buell, in order for our United States Navy to maintain the fleets that it does that roam the oceans of the globe to protect our national interests and our national security, thousands of miles from fixed bases, the Navy depends on methods to provide logistical support including, among other things, fuel, food, ammunition, repair parts, consumable supplies and means to repair damaged ships.[1] That mission, fleet logistics, is the now the vital job of the MSC. Our sailors' safety and their lives depend on it.

The MSC itself notes that "we …play a critical role in support of our nation's defense".[2] The MSC is the premier provider of ocean transportation to the Department of Defense. The MSC operates approximately 125 civilian-crewed ships that replenish U.S. Navy ships, conduct specialized missions, strategically pre-position combat cargo at sea around the world, and move military cargo and supplies used by deployed U.S. forces and coalition partners.

MSC personnel are not military, but are considered civil service union employees, and they are employed by MSC to serve on-board naval auxiliaries and hybrid-manned warships worldwide - in peace and in war. MSC exists to support the joint war effort across the full spectrum of military operations. MSC provides on-time logistics, strategic sealift, as well as specialized missions anywhere in the world, in contested or uncontested environments.

MSC operates the following classes of vessels each of which serve vital functions for national security, humanitarian missions, and the safety of our serving armed forces soldiers and sailors:

- Expeditionary Fast Transport Vessels (T-EPF). These provide rapid transport of military and personnel in theater.
- Hospital Ships (T-AH). As the name suggest, these vessels provide an afloat, mobile, acute surgical medical care facilities when called upon to all branches of the United States military, and hospital services to support United States disaster relief and humanitarian operations worldwide.
- Dry Cargo/Ammunition Ships (T-AKE). These provide multiple products including ammunition, food, mail, dry provisions, limited quantities of fuel, repair parts, and expendable supplies to ships at sea.
- Underway Replenishment Oilers (T-AO). These provide underway replenishment of fuel to United States Navy combat ships and jet fuel for aircraft carriers at sea.
- Cable Laying/Repair (T-ARC). These transport, deploy, retrieve and repair undersea cables.

[1] Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance (Classics of Naval Literature)*, 1987, United States Naval Institute, p. 190.
[2] https://sealiftcommand.com/about-msc

- Rescue/Salvage Ships (T-ARS). They assist in rescue and salvage missions.

- Submarine Tenders (T-AS). They provide repair services to submarines. These ships are commanded by a United States Navy Captain and have a combined uniformed Navy and civilian crew.

- Fleet Ocean Tugs (T-AFT). These provide towing services and operate as platforms for Navy divers in recovery of downed aircraft and ships.

- Command Ship (LLC). These are United States 6th Fleet flagships with advanced C41 suites. These ships are commanded by a uniformed United States Navy Captain and crewed by combined US Navy and civilian sailors.

- Expeditionary Mobile Base (T-ESB). These provide dedicated support for mine countermeasures and special warfare missions.

- Fast Combat Support Vessels (T-AOE). These delivery petroleum products, ammunition, food and other cargo to other ships at sea.

MSC provides critical and necessary support for the many humanitarian operations conducted by the U.S. Navy, including disaster relief, evacuation, and medical assistance, among other humanitarian efforts.

As the MSC itself notes, "[t]he mission of the MSC is big".[3]

PSR has a critical role in national security. Substantially impeding the maintenance and repair operations of PSR would negatively impact national security and the provision of vital humanitarian operations by the U.S. Navy. As we will demonstrate further in this discussion, an exemption for the PSR facility would not result in any increase in emissions or any threat to public health or the environment.

IV. Workforce at PSR and Economic Contribution to Philadelphia

The PSR has been an important and substantial contributor to the Philadelphia economy, both directly and indirectly, for many years. Any curtailment, or potential for curtailment, of operations at PSR would also have seriously detrimental impacts on the Philadelphia economy and to labor in Philadelphia.

Each ship repair project involves about fifty (50) Union workers and up to one hundred fifty (150) subcontractors (employing hundreds of personnel), depending on the size and scope of the ship service. The Shipbuilders Union, Local Lodge S25 International Union of Marine and Shipbuilding Workers of America, and International Association of Machinists and Aerospace Workers supply our workforce. Average Union wages paid to our workers is between $23 and $40 per hour, plus benefits. An average worker will be employed at the facility for 9 months per year so the estimated minimum yearly salary with overtime is $80,000. Approximately 60% to 70% of our workers actually live in Philadelphia proper.

[3] Ibid.

In addition to the direct impact on the Philadelphia economy, the PSR facility also has a significant secondary, indirect positive impact on the local economy: most materials are sourced locally. This includes welding supplies, industrial gases, trash disposal, consumables, and more.

A letter from a local union supporting the continued presence and mission of PSR in the City of Philadelphia, is included in Attachment A.

V. Potential Unintended Consequences

Precautions should be taken such that any changes to the Regulation VI, that are ultimately adopted and implemented, should not have unintended consequences. For example, a small exceedance should not result in a punitive facility-wide risk assessment. Such a study may trigger regulators to push for draconian and technically infeasible measures that would yield no environmental or public health benefits, but would result in the curtailment or worse of a facility, especially one like PSR which serves an important national security function and provides so many good paying jobs to on-site workers and to supply chain workers.

VI. Recommended Actions

Recommendation #1: As mentioned, the shipbuilding and ship repair sector (which includes the PSR facility) are already subject to particularized NESHAP (MACT) and RACT Rules. These particularized rules were developed based on *focused evaluation of how to minimize environmental and health impacts related to this unique industry*. The proposed new AMS Rule, on the other hand, is being developed to address all activities in Philadelphia without consideration of factors specific to any industry or activity. Because the existing MACT and RACT Rules provide specific coverage to shipbuilding and ship-repair activities performed at PSR based on its unique characteristics, the proposed changes to AMS's Regulation VI would be inappropriate for application to PSR. Thus, the shipbuilding and ship repair sector should be exempt from the proposed changes to Regulation VI.

Suggested Language: *Any facility which is already subject to an industry-specific NESHAPS, MACT, or RACT regulation is exempt from this Regulation.*

Recommendation #2: Any rule should include a pathway for reasonable compliance by PSR in the interests of national security.

Recommendation #3: Any evaluation of health effects should be done based on the impacts to residents of Philadelphia at their place of residence. Evaluation of emissions and effects at the fence line is inappropriate public policy and contrary to public health as no individual resides at the fence line. In fact, due to facility security measures, even loitering at the fence line is not permitted. (Please refer to Technical Guidance Comments in Attachment B)

Recommendation #4: AMS should not include background emissions or emissions of neighboring facilities when considering a Plan Approval application or Title V Operating Permit application. PSR is not able to prevent emissions from other sources and should not be held responsible for the actions of others. Rolling in emissions from other sources could mean that *all* permitted facilities would have to shut down, as no mitigation plan could correct for those emissions. If the city is experiencing unacceptably high background emissions, AMS and the Department of Public Health should focus on reducing such emissions.

Recommendation #5: As AMS has noted, background emissions are a problem for the city. As such, it would make the most sense for AMS to seek to reduce emissions from non-permitted sources including vehicles, commercial facilities and other low-level sources. AMS may find that modest efforts to target particularly egregious non-permitted sources could yield great benefits – and potentially greater benefits than any additional reductions from already low-emitting sources, like PSR. We recommend AMS conduct a robust study of non-permitted sources to develop an emissions reduction plan that would surely help all Philadelphians.

TECHNICAL GUIDANCE COMMENTS

Please refer the Attachment B for technical comments related to Regulation VI, Exhibit A.

CONCLUSION

PSR appreciates the opportunity to provide these comments/questions to AMS. Should you have any questions or need additional information, please do not hesitate to contact Philip Giles, Vice President at 1-617-330-5045 ext 328.

Respectfully,

PHILADELPHIA SHIP REPAIR LLC

Philip Giles, Vice President

PG/VEF:vef

PHILADELPHIA SHIP REPAIR

ATTACHMENT A

STATEMENT FROM LOCAL UNION SUPPORTING PSR OPERATIONS

local Lodge S25,Iumswa/Iamaw

198 Hagman Road
Winthrop Massachusetts 02152

978-590-9608 603-232-4493

Benjamin Hartung
Public Policy Advisor
City of Philadelphia Department of Health
1101 Market Street, 9th Floor
Philadelphia PA 19107

Sent Via Email To: Benjamin.Hartung@phila.gov
Re: Comments of Union of Marine and Shipbuilding Workers and International Association of Machinists to Proposed Philadelphia Air Toxics Rule

Dear Mr. Hartung,

The International Union of Marine and Shipbuilding Workers and the International Association of Machinists represents over 150 workers and subcontractors employed in vital ship repair and reconditioning work at the Philadelphia Ship Repair facility in the Navy Yard.

Philadelphia Ship Repair performs vital repair and reconditioning work for the United States Navy Military Sealift Command. Dozens of support vessels have been repaired by the skilled men and women of our Shipbuilders Union for several years in Philadelphia. Philadelphia Ship Repair uses one of only two remaining dry docks at what was, for over 200 years, a main ship construction and repair base for the U. S. Navy. The Navy Yard was, in fact, one of the original naval bases for the U.S. Navy.

Our workers have important critical skills necessary for the support of our military that can only be found in few places in our country.

Our workers are highly professional and have an exemplary record in efficiency, quality, commitment to safety and environmental stewardship, protecting health and safety of their colleagues and the people of Philadelphia.

On behalf of the workers of Local S25 and the thousands of skilled trade workers represented by IUMSW and IAM, we support the continued and critical operation of Philadelphia Ship Repair. Philadelphia Department of Public Health needs to take into account the welfare and livelihood of our union workers, most of whom live in the city of Philadelphia. After all, unemployment and underemployment are not healthy for workers and their families.

The continued safe and responsible operation of Philadelphia Ship Repair is critical to our national security, the economy of Philadelphia and the lives of the families of its union workers.

Sincerely,

Aaron LockHart
Vice President Local S25

PHILADELPHIA SHIP REPAIR

ATTACHMENT B

TECHNICAL COMMENTS TO EXHIBIT A OF REGULATION VI
TECHNICAL GUIDANCE AND RISK FACTORS ASSESSMENT

TECHNICAL COMMENTS FOR AMS REGULATION VI PROPOSED CHANGES

1. Comments on the Modeling

Modeling is complex for sources like PSR that have intermittent operations, and different paints specified for each ship they service in the dry dock. That is, each ship will have a different configuration (e.g., size of the ship) and be serviced in different ways (i.e., mechanical repairs only, limited painting, or full ship re-paint). In addition, traditional air modeling has built-in highly conservative assumptions at every step of the modeling process, which results in multiple layers of conservativism that overestimates risk for cancer, especially for sites with intermittent emissions. The highly conservative assumptions may include the emission factors used, and modeling results that estimate the maximum impacts during the worst-case meteorological conditions.

The probability of a concurrence of worst-case emission rates and worst-case meteorological conditions is very, very low. In many cases, the combined layers of conservatism yield results that never occur under actual conditions or occur extremely rarely – with years elapsing between occurrences.

In addition, depending on the type and location of source, the maximum impact is most likely on the fence line of the facility, which may or may not be located near residential areas. Only when evaluating emissions from elevated stacks could maximum impact occur beyond the fence line. In the case of PSR, although the facility has some Title V emissions stacks primarily for combustion sources – the most significant regulated processes are from the painting operations relative to AMS's proposed changes to Regulation VI. As such, the maximum impact will likely be at the fence line, thus distant from designated residential areas or potential sensitive receptors.

The highly conservative model results, including modeling at the fence line, combined with conservative toxicity factors and stringent risk thresholds, could result in facilities such as PSR having modeled results that are above risk thresholds. However, in reality, the facility emissions may have little to no impact on actual health risks.

There is very little specific guidance for modeling complex sources (e.g., intermittent and/or unique operations) to ensure that estimates are reasonable and not gross overpredictions. Therefore, we recommend that AMS provide specific guidelines for acceptable modeling criteria, including how to model intermittent sources, and what would be a reasonable approach for selecting an exposed receptor (vs. the maximal exposed receptor) that is representative of likely exposures.

2. Comments on the Risk Assessment Process

A. In the Technical Guidelines for AMR Regulation VI Tables 2 and 4, the Table footnotes define Total Cancer Risk as the sum of the Project Cancer Risk and the "Background Cancer Risk," and define the "Background Cancer Risk" as the cancer risk for the census tract where the facility is located using data from USEPA AirToxScreen. It is unclear from the footnote what would be considered the "background cancer risk," and it would be helpful if AMS clarified what they mean by "background cancer risk". For example, is the "background cancer risk" the sum of the cancer risk from all sources in EPA's AirToxScreen (which would already include existing sources like PSR), or is it the background cancer risk associated with background air toxics concentrations as defined

in AirToxScreen?[4] Because a facility such as PSR cannot control the emissions from other nearby sources (e.g., the airport), it seems unreasonable for them to be responsible for those potential health risks.

The background risk alone, whether based on overall emission sources or only the "background" air toxics concentration, already exceed the 1 in a million risk criteria for all of Philadelphia, which means that all facilities that emit air toxics will exceed the 1 in a million threshold on the basis of the "background cancer risk" alone. We don't believe this was the intention of the regulatory amendments. In addition, it should be notes that USEPA lists a number of limitations associated with AirToxScreen results and outlines that *the results should not be used to assess risks at a local level* or as the basis for regulations.[5] It is recommended that AMS reconsider the use of "background cancer risk" based on EPA's AirToxScreen, especially since the New Jersey rule, which is the basis for the AMS rule changes, does not include the use of "background cancer risk" in the determination of Total Cancer Risk.

If AMS requires that background risk must be included in any modeling, then every regulated entity within the city limits of Philadelphia would be in violation or non-attainment and require mitigation. Furthermore, as the background may be the result of non-regulated emissions, i.e., motor vehicles, small sources, pollution sources outside the city, it may be that no mitigation could achieve the risk-goals of AMS. In short, all regulated sources may remain in violation, in perpetuity.

B. Many chemical-specific toxicity values are based on antiquated and inadequate data, and should be updated or removed. It is recommended that AMS review the toxicity values and update them such that they are consistent with more relevant and less dated scientific evidence. For example, the toxicity criteria for barium and copper, which are not considered Hazardous Air Pollutants (HAPs) by USEPA, have toxicity factors that are in the same order of magnitude as much more toxic chemicals (e.g., arsenic or hydrogen cyanide) for short-term non-cancer risks. These toxicity factors are very dated and AMS should consider more recent health evaluations that indicate that scientific information are insufficient to establish short-term toxicity factors for these compounds see for example ATSDR 2007[6]; ATSDR 2022[7]).

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[4] "Background concentrations represent levels of pollutants that would be found in a year even if there had been no recent human-caused emissions. For example, a main contributor to risk from background concentrations is carbon tetrachloride, a common pollutant that now has few emissions sources but persists in the air due to its long half-life.For AirToxScreen, we estimated background using remote concentration estimates from monitoring and emissions." AirToxScreen Frequent Questions | US EPA [We note that the "Background cancer risk" specified in AirToxScreen is the same for all of Philadelphia and is estimated to be 3 in a million based on carbon tetrachloride estimated concentrations. This background risk exceeds the 1 in a million risk level for negligible risk.]

[5] AirToxScreen Overview | US EPA

[6] Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological profile for Barium. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

[7] Agency for Toxic Substances and Disease Registry (ATSDR). 2022. Toxicological Profile for Copper. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service

C. The risk assessment approach for certain chemical mixtures is unclear or overly conservative. For example, for the large number of polycyclic aromatic compounds (PAHs) or dioxins that could be emitted by a facility, a toxicity value is not available, and AMS guidance proposes a toxicity value for the most toxic of these chemicals be applied. This will greatly overestimate the cancer risks for these chemicals as they do not all have the same toxicity. AMS should revisit the approach for considering the toxicity of these chemical groups.

   Similarly, AMS should also clarify the approach for metal compounds, and what assumptions should be made such that all metal emissions are not assumed to be the most toxic metal species.

D. Proposed cancer risk thresholds are highly conservative compared to risk thresholds used in other regulatory frameworks, including the NJ risk thresholds, which is the basis of AMS's proposed changes. For example, USEPA risk assessment guidance as well as NESHAP accepts risks that are below a cut-off of 100 in a million, with mitigation (e.g., superfund cleanup) at levels above 100 in a million. The NJ risk thresholds for a facility-wide risk assessment specify that a risk < 10 in a million are considered a negligible risk and deem unacceptable a risk level above 1000 and a million. We also note that the AMS's proposed cancer thresholds for a facility wide assessment do not specify what a facility should do if the risks are between 1 in a million and 10 in a million. Therefore, AMS should consider aligning the risk threshold with other regulatory thresholds and provide more clarification for facility-wide analyses.

E. AMR Regulation VI is sufficiently different from the NJ regulations upon which it is modeled, but has yet to be implemented as written in Philadelphia. For example, issues related to toxicity factors that are antiquated and inadequate combined with much more stringent risk thresholds, will have unintended consequences for many facilities in Philadelphia that may face potential permit denials based on flawed science without any proven health benefits.

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Benjamin Hartung
Public Policy Advisor
City of Philadelphia Department of Health
1101 Market Street, 9th Floor
Philadelphia PA 19107

Sent Via Email To: Benjamin.Hartung@phila.gov
Re: Comments of Union of Marine and Shipbuilding Workers and International Association of Machinists to Proposed Philadelphia Air Toxics Rule

Dear Mr. Hartung,

The International Union of Marine and Shipbuilding Workers and the International Association of Machinists represents over 150 workers and subcontractors employed in vital ship repair and reconditioning work at the Philadelphia Ship Repair facility in the Navy Yard.

Philadelphia Ship Repair performs vital repair and reconditioning work for the United States Navy Military Sealift Command. Dozens of support vessels have been repaired by the skilled men and women of our Shipbuilders Union for several years in Philadelphia. Philadelphia Ship Repair uses one of only two remaining dry docks at what was, for over 200 years, a main ship construction and repair base for the U. S. Navy. The Navy Yard was, in fact, one of the original naval bases for the U.S. Navy.

Our workers have important critical skills necessary for the support of our military that can only be found in few places in our country.

Our workers are highly professional and have an exemplary record in efficiency, quality, commitment to safety and environmental stewardship, protecting health and safety of their colleagues and the people of Philadelphia.

On behalf of the workers of Local S25 and the thousands of skilled trade workers represented by IUMSW and IAM, we support the continued and critical operation of Philadelphia Ship Repair. Philadelphia Department of Public Health needs to take into account the welfare and livelihood of our union workers, most of whom live in the city of Philadelphia. After all, unemployment and underemployment are not healthy for workers and their families.

The continued safe and responsible operation of Philadelphia Ship Repair is critical to our national security, the economy of Philadelphia and the lives of the families of its union workers.

Sincerely,

Aaron LockHart
Vice President Local S25

From: Tom Volkert
To: Benjamin Hartung
Subject: Philadelphia Air Management Regulation VI for Toxic Air Contaminants
Date: Friday, September 9, 2022 8:44:28 AM

Dear Benjamin.Hartung@phila.gov,

Thank you for your efforts to better regulate toxic air pollution and reduce cancer risks from pollution emitted by large industrial facilities in Philadelphia.

The proposed regulations must be strengthened to truly ensure they achieve meaningful health protections for Philadelphians. Making simple but important changes consistent with the current science will make a real difference in preventing cancer, birth defects, and other serious health impacts from toxic air pollution in our city - especially in neighborhoods already overburdened by industrial pollution.

AMS should require an assessment of the cumulative impacts on human health of multiple air toxics from a facility. It is not adequate to individually consider the impact of each known carcinogen emitted by a facility. It would be more protective to aggregate the total carcinogenic pollutants emitted by a facility to establish the total cancer risk.

In addition, Air Management Services (AMS) should lower the health hazard benchmark used to decide when to require a risk mitigation plan or to deny a permit. AMS should require a risk mitigation plan when the combined cancer risk of a proposed facility is 10-in-1 million or more. AMS should deny a permit when the combined cancer risk of a proposal is 25-in-1 million or more.

The proposed guidelines require that the risk mitigation plan “minimize” and “manage” the health risk posed, but appear not to require or ensure actual pollution or health risk reduction. The regulation should require the adoption of additional specific pollution control and reduction measures, such as fugitive emissions controls, hazard or chemical phase-out or elimination, community buffer requirements, and fenceline monitoring. Furthermore, any permit, plan or license approved with a risk mitigation plan should include requirements for emission measurement, air monitoring and reporting to ensure compliance. The plan should also include clear consequences for not following the requirements.

The proposed regulation does not provide for public input on health risk assessments or risk mitigation plans for facilities that affect surrounding communities. AMS should explicitly provide for public review and comment to ensure community feedback can be incorporated in a timely way into decisions about the permit, license, or plan.

The Air Pollution Control Board should commit to review the rule every five years, after public notice and comment to ensure it reflects the best available science and is strengthened as needed to protect public health, particularly the health of children and fenceline communities.

I urge you to strengthen this rule in the above ways to better protect public health and advance

environmental justice in Philadelphia. Thank you for your consideration.

Sincerely,
Tom Volkert
[redacted]

Comments by Walter Tsou, MD, MPH on behalf of Physicians for Social Responsibility Pennsylvania on proposed AMS Regulation VI:
9/9/2022

Purpose of Regulations

The purpose of these regulations is to reduce air pollution in Philadelphia, particularly in vulnerable communities. Unfortunately, as proposed, these regulations are unacceptable.

Health Assessments for Vulnerable Communities

To begin with, certain vulnerable communities should simply be considered off limits for further air pollution. In particular, communities with high respiratory, cancer, birth defects and cardiovascular disease should be considered off limits for permits. The criteria for deciding census tracts with high respiratory, cardiovascular disease and lung cancer, birth defects, lymphoma and leukemia can and should be done by the health department. You have access to census tract level data on morbidity and mortality statistics. In addition, you have access to the PHMC's community health database which provides longitudinal morbidity data by zip code across the city. For some reason, the health department has stopped publishing its vital statistics reports since 2016 making it very difficult for the public and researchers to verify high risk areas. However, by combining contiguous census tracts over a three-year period, you can determine and map out those areas with higher asthma, respiratory, lung cancer, birth defects, leukemia and lymphoma, and cardiovascular disease across the city. Using this data, areas with rates 50% higher than the city average should be considered areas where toxic releases are unacceptable and never be permitted. Because the health department has access to this data, the health department should simply not grant any permits within a 1/2 mile radius of these census tracts. It is very likely these are some of the poorest areas of the city who also have the worst health statistics. To permit environmental toxic air contaminants (TACs) in such communities is the very definition of environmental racism.

The proposed regulations ask for the applicant "to conduct cancer and non-cancer risk to the surrounding community using standardized health assessment tools". It is very unlikely that most applicants have the skill set or access to the data to conduct such an assessment. Instead, the health department should conduct this assessment as part of the permitting process showing their methodology in explaining why they granted or denied a permit. The cost for this analysis should be reflected in the permit application fee. Those areas with 50% higher rates as described above should be denied any permit even with risk mitigation plans.

Public Disclosure of Permits and Notices by Website

The regulations state that AMS will maintain a file of all notices of TACs and MSDS for public inspection during normal business hours. This should be for both major and minor facilities in order to calculate cumulative impacts. There is no reason why applicants or permittees cannot scan such notices or MSDS files and email them to AMS. In the internet age, these notices should be posted on a public website. Asking most citizens to trek down to the health department to look at such files presents an onerous burden to most of the public.

The regulations ask that notices be held for thirty years. The department can archive these notices electronically for notices after ten years. The original permit for both minor and Title V major facilities should be available by website for thirty years.

Mapping of Permitted Sites and Assessment of Cumulative Impact

In order to assess cumulative impacts, the location of all operating permitted sites should be mapped on the website so any applicant can easily visualize existing permits and their permitted air pollutants. AMS should review this map in its assessment to see if the combined release of TACs in close proximity of an already permitted site would exceed thresholds that would deny a permit or to an environmental justice community already burdened by higher than expected asthma, respiratory, cardiovascular, cancer or birth defect rates.

Highway and Traffic mobile source assessment

The regulations do not require mobile source assessment for known TACs using air models such as MOVES. https://www.epa.gov/moves. Permits should also assess the additional cumulative impact of highway and traffic added to a proposed site. Often, the addition of mobile sources is sufficient to deny a permit when the additional air pollution will tip the TACs over the permitted threshold limit.

Renewable Energy

No provision is written in the regulations for power plants or energy sources that require that the default choice must be renewable, non-polluting sources such as wind, solar, tidal, hydroelectric, or geothermal as part of the permit application and reasons why burning a fossil fuel is requested. Given our city's goal of net zero emissions by 2050, no fossil fuel combustion plant should be permitted unless under extraordinary circumstances. If granted, the permit must publicly disclose the renewable energy assessment and fossil fuel burning permit for thirty years by website.

Toxic Air Contaminant (TAC) list and Precautionary Principle

The regulations should indicate that the TAC list is fluid. Substances can be added, and their threshold levels modified depending upon toxicology studies. In the likely scenario where a new pollutant as identified and not on the TAC list, the precautionary principle should prevail where the applicant must show scientific studies that the pollutant is more likely not harmful or the permit should be restricted or denied.

The technical report lists the reporting thresholds for 217 TACs. Some of the TACs are known compounds like asbestos which have thresholds of 0.007 lbs/yr or arsenic compounds (0.01 lbs/yr) where the carcinogenic effect is well documented. Others have thresholds of 2000 lbs/yr or one ton of air pollution. The degree of variability seems beyond scientific since it is likely that TACs that allow 2000 lbs have unlikely been fully tested for their airborne toxicity and are simply allowed. In fact, if you read the MSDS of many of these 2000 pound permitted TACs you discover that most are highly toxic but would be permitted under the AMS regulations. This makes no sense and is likely going to release a slew of toxic compounds on Philadelphia residents. Consider some of the 2000 pound "permitted" thresholds below:

Toxic Air Contaminant	Reporting Threshold (lbs./yr)	MSDS health symptoms	References
Acetonitrile	2000	Flammable, acute toxicity for oral, inhalation, dermal, eye	https://www.sigmaaldrich.com/US/en/sds/sial/271004
1-Bromopropane	2000	Flammable, skin corrosion, serious eye damage, carcinogen, reproductive toxicity, target respiratory, CNS, liver systems	https://www.fishersci.com/store/msds?partNumber=AAA104610J&productDescription=1-BROMOPROPANE+99%25+5L&vendorId=VN00024248&countryCode=US&language=en
Calcium cyanamide	2000	Acute oral toxicity, serious eye damage, target respiratory system	https://www.fishersci.com/store/msds?partNumber=AA8946222&productDescription=CALCIUM+CYANAMIDE%2C+TECH.+100G&vendorId=VN00024248&countryCode=US&language=en
Carbaryl	2000	Cholinesterase inhibition impairs CNS function, nausea, vomiting, bronchoconstriction, blurred vision, convulsions, coma, respiratory failure, headaches, memory loss, muscle weakness, anorexia	https://www.epa.gov/sites/default/files/2016-09/documents/carbaryl.pdf
Carbon disulfide	2000	Dizziness, poor sleep, headaches, anxiety, anorexia, weight loss, vision changes, harmful to eyes, kidneys, blood, heart, liver, nerves and skin	https://www.cdc.gov/niosh/topics/carbon-disulfide/default.html
Chlorobenzene	2000	Irritation of eyes, skin, nose, drowsiness, incoordination, CNS depression	https://www.cdc.gov/niosh/npg/npgd0121.html
Cresols	2000	Dryness, nasal constriction, throat irritation in small doses, large doses can lead to death	https://www.atsdr.cdc.gov/ToxProfiles/tp34-c3.pdf
Dibutylphthalate	2000	No human information. Not really studied. Moderate toxicity in mice	https://www.epa.gov/sites/default/files/2016-09/documents/dibutyl-phthalate.pdf
Dimethyl phthalate	2000	No information is available on the chronic (long-term), reproductive, developmental, or carcinogenic effects of dimethyl phthalate in humans. Animal studies have reported slight effects on growth and on the kidney from chronic oral exposure to the chemical.	https://www.epa.gov/sites/default/files/2016-09/documents/dimethyl-phthalate.pdf
Ethyl chloride	2000	The acute (short- term) effects of ethyl chloride from inhalation exposure in humans consists of temporary feelings of drunkenness, and higher levels cause lack of muscle coordination and	https://www.epa.gov/sites/default/files/2016-09/documents/ethyl-chloride.pdf

		unconsciousness. The chronic (long-term) health effects resulting from exposure to air containing low levels of ethyl chloride in humans is not known. Some animal studies indicate effects on the lungs, liver, kidneys, and heart due to exposure to ethyl chloride via inhalation. No studies were located regarding carcinogenic effects following ethyl chloride inhalation exposure in humans. A study by the National Toxicology Program (NTP) indicated that inhaled ethyl chloride is carcinogenic in female mice and may be carcinogenic in rats. EPA has not classified ethyl chloride for carcinogenicity.	
Ethylene glycol	2000	Ethylene glycol's toxicity mainly results from the accumulation of its toxic metabolites. Ethylene glycol is a central nervous system (CNS) depressant that produces acute effects similar to those of ethanol. These CNS effects predominate during the first hours after exposure. If undetected or untreated, ethylene glycol ingestion can cause serious or fatal toxicity. This section describes the systemic effects associated with significant ethylene glycol exposure. It affects the CNS, lungs, cardiovascular, metabolic, kidneys	https://www.atsdr.cdc.gov/csem/ethylene-propylene-glycol/toxicological_effects.html
Hexane	2000	mild central nervous system (CNS) effects, including dizziness, giddiness, slight nausea, and headache. Chronic (long- term) exposure to hexane in air is associated with polyneuropathy in humans, with numbness in the extremities, muscular weakness, blurred vision, headache, and fatigue observed. Neurotoxic effects have also been exhibited in rats.	https://www.epa.gov/sites/default/files/2016-09/documents/hexane.pdf

Isophorone	2000	The acute (short-term) effects of isophorone in humans from inhalation exposure include eye, nose, and throat irritation. Chronic (long- term) exposure to isophorone in humans can cause dizziness, fatigue, and depression. Animal studies indicate that long-term inhalation of high concentrations of isophorone causes central nervous system effects. Limited evidence in animal studies suggests that isophorone may cause birth defects such as fetal malformations and growth retardation from inhalation exposure to isophorone during pregnancy.	https://www.epa.gov/sites/default/files/2016-09/documents/isophorone.pdf
Methanol	2000	Poison! May be fatal or cause blindness if swallowed. Vapor harmful. **Flammable liquid and vapor.** Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye, skin, and respiratory tract irritation. May cause central nervous system depression. Cannot be made non-poisonous. **Target Organs:** Eyes, nervous system, optic nerve.	https://fscimage.fishersci.com/msds/14280.htm
Methoxychlor	2000	Information on the acute (short-term) and chronic (long-term) effects of methoxychlor in humans is not available. In an acute oral study in animals, changes in the liver were reported. Dermal contact with methoxychlor is slightly irritating to skin. Chronic oral exposure of animals to methoxychlor has resulted in effects to the liver, kidneys, and nervous system. Reproductive and developmental effects are the primary concern from methoxychlor exposure. Animal studies have reported developmental and reproductive effects, such as abortions, reduced fertility, reduced litter size, and skeletal effects from oral exposure to methoxychlor.	https://www.epa.gov/sites/default/files/2016-09/documents/methoxychlor.pdf
Methyl chloroform	2000	Effects reported in humans due to acute (short-term) inhalation	https://www.epa.gov/sites/default/files/2016-

		exposure to methyl chloroform include hypotension, mild hepatic effects, and central nervous system (CNS) depression. Cardiac arrhythmia and respiratory arrest may result from the depression of the CNS. Symptoms of acute inhalation exposure include dizziness, nausea, vomiting, diarrhea, loss of consciousness, and decreased blood pressure in humans. After chronic (long-term) inhalation exposure to methyl chloroform, some liver damage was observed in mice and ventricular arrhythmias in humans.	09/documents/methyl-chloroform.pdf
Methyl methacrylate	2000	Methyl methacrylate is irritating to the skin, eyes, and mucous membranes in humans. An allergic response to dermal exposure may develop. Respiratory effects have been reported in humans following acute (short-term) and chronic (long-term) inhalation exposures. Respiratory symptoms observed following acute exposures include chest tightness, dyspnea, coughing, wheezing, and reduced peak flow. Neurological symptoms have also been reported in humans following acute exposure to methyl methacrylate. Fetal abnormalities have been reported in animals exposed to methyl methacrylate by injection and inhalation.	https://www.epa.gov/sites/default/files/2016-09/documents/methyl-methacrylate.pdf
Methylene chloride	2000	Effects of short-term (acute) exposures to workers and consumers, including bystanders, can result in harm to the central nervous system, or neurotoxicity. Effects of longer periods of exposure (chronic) for workers includes liver toxicity, liver cancer, and lung cancer.	https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/fact-sheet-methylene-chloride-or-dichloromethane-dcm-0
Phenol	2000	Phenol is highly irritating to the skin, eyes, and mucous membranes in humans after acute (short-term) inhalation or dermal exposures. Phenol is considered to be quite toxic	https://www.epa.gov/sites/default/files/2016-09/documents/phenol.pdf

		to humans via oral exposure. Anorexia, progressive weight loss, diarrhea, vertigo, salivation, a dark coloration of the urine, and blood and liver effects have been reported in chronically (long-term) exposed humans. Animal studies have reported reduced fetal body weights, growth retardation, and abnormal development in the offspring of animals exposed to phenol by the oral route	
p-Phenylenediamine	2000	Acute toxicity oral, inhalation, dermal, eye irritation, skin sensitization, target organ kidney, heart, skeletal, toxic to water sources	https://www.sigmaaldrich.com/US/en/sds/aldrich/695106
Propoxur	2000	Acute (short-term) exposure of humans to propoxur by ingestion leads to cholinesterase inhibition of red blood cells, with mild cholinergic symptoms including blurred vision, nausea, vomiting, sweating, and tachycardia; however, the effects are transient. Chronic (long-term) inhalation exposure has resulted in depressed cholinesterase levels, headaches, vomiting, and nausea in humans. Chronic ingestion studies in animals have reported depressed cholinesterase levels, depressed body weight, effects to the liver and bladder, and a slight increase in neuropathy.	https://www.epa.gov/sites/default/files/2016-09/documents/propoxur.pdf
Sulfuryl fluoride	2000	Irritate skin, eyes, lungs leading to pulmonary edema, nausea, vomiting, weakness, twitching, seizures, damage to liver, kidneys, highly corrosive.	https://nj.gov/health/eoh/rtkweb/documents/fs/1769.pdf
Toluene	2000	irritated eyes, nose, and throat; dry or cracked skin; headache, dizziness, feeling of being drunk, confusion and anxiety. Symptoms worsen as exposure increases, and long term exposure may lead to tiredness, slow reaction, difficulty sleeping, numbness in the hands or feet, or female reproductive system damage and pregnancy loss. If swallowed,	https://www.osha.gov/toluene

		toluene can cause liver and kidney damage	
Vinyl acetate	2000	Acute (short-term) inhalation exposure of workers to vinyl acetate has resulted in eye irritation and upper respiratory tract irritation. Chronic (long-term) occupational exposure did not result in any severe adverse effects in workers; some instances of upper respiratory tract irritation, cough, and/or hoarseness were reported. Nasal epithelial lesions and irritation and inflammation of the respiratory tract were observed in mice and rats chronically exposed by inhalation. No information is available on the reproductive, developmental, or carcinogenic effects of vinyl acetate in humans. An increased incidence of nasal cavity tumors has been observed in rats exposed by inhalation. In one drinking water study, an increased incidence of tumors was reported in rats. EPA has not classified vinyl acetate for carcinogenicity.	https://www.epa.gov/sites/default/files/2016-09/documents/vinyl-acetate.pdf
Vinylidene chloride	2000	Flammable, acute oral toxicity, inhalation toxicity, serious eye damage, carcinogenicity, target organ nasal cavities and liver	https://www.fishersci.com/store/msds?partNumber=AC172290010&productDescription=VINYLIDENE+CHLORIDE+99%25+1LT&vendorId=VN00032119&countryCode=US&language=en
Xylene	2000	Depression of the CNS, headache, dizziness, nausea, vomiting. Slurred speech, loss of balance, loss of consciousness, irritates nose, throat, eye, lungs, liver, kidneys. Damaged skin	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996004/
2,4-D, salts and esters	2000	2,4-D generally has low toxicity for humans, except certain acid and salt forms can cause eye irritation	https://www.epa.gov/ingredients-used-pesticide-products/24-d
Glycol esters	2000	Acute (short-term) exposure to high levels of the glycol ethers in humans results in narcosis, pulmonary edema, and severe liver and kidney damage. Chronic (long-term) exposure to the glycol ethers in	https://www.epa.gov/sites/default/files/2016-09/documents/glycol-ethers.pdf

		humans may result in neurological and blood effects, including fatigue, nausea, tremor, and anemia.	
Ethylene glycol monobutyl ether	2000	No studies shown on teratogenic effects, no studies show carcinogenicity. Nasal and eye irritant	https://cfpub.epa.gov/ncea/iris/iris_documents/documents/toxreviews/0500tr.pdf

It defies reason why these substances would be allowed 2000 lbs of toxic release under the AMS regulations given their known toxicities. And I did not have a chance to read all 217 TACs, but it raises the question of how did AMS decide what are the threshold levels? What peer reviewed scientific literature was cited in choosing these thresholds. What faith should the public have in knowing that allowing these thresholds would not put exposed residents in harm's way? I think these levels need to be explained in terms of methodology for choosing these thresholds.

These thresholds determine granting of permits. Presumably, I only showed the worst-case scenarios of chemicals that are granted the highest permissible threshold of 2000 lbs/year, many of them showing significant and dangerous health effects. It seems too arbitrary to know why a level of 1999 lbs/year would be granted a permit and 2000 lbs/year would not.

The granting of permits is as much politics as science. A health assessment, combined with renewable energy reports, known cumulative sources in the area, plus highway and traffic pollution, plus the toxic levels need to all be considered in granting permits. Frankly, this may dramatically reduce the number of permits granted, but for the public's health, granting a permit is a decision that could last decades or an entire generation. It is not simply the same method of the past where "sneak under a threshold" and you get the permit. This must be reconsidered in light of mistakes in the past where polluting sources have contaminated and destroyed neighborhoods.

Philadelphia needs a thoughtful, protective air regulation that considers the impact of permitted TACs on vulnerable communities and that some already overburdened communities are just simply off limits. We should always ask why non polluting, renewable sources are not the default first choice? Permits must consider the cumulative impacts of already existing multiple permitted facilities in the same census tract areas along with mobile sources of pollution before a permit should be granted. And it needs a rational description of the methodology used to pick thresholds which seems too arbitrary and difficult to scientifically defend.