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MAPA Comments on MPCA Odor Management Rulemaking

Submitted to: Minnesota Pollution Control Agency

Re: Odor Management Rulemaking — Rule Concept Development Input

Date: June 2026

The Minnesota Asphalt Pavement Association (MAPA) submits the following comments on MPCA's odor management rule concepts under Minn. Stat. § 116.064. MAPA represents asphalt pavement producers operating in Minnesota, including facilities in the seven-county Twin Cities metropolitan area subject to this rulemaking.

I. The Refinery Exemption Should Be Clarified to Include Asphalt Production Plants

MAPA raised this question in its September 2023 scoping comments and reiterates it here. Asphalt production plants are classified within the broader NAICS 324 petroleum and coal products manufacturing sector, which also includes petroleum refineries. The exemption for "refineries" in Minnesota Session Law 2023, Chapter 60 does not define that term. MAPA requests that MPCA clarify in the draft rule language whether asphalt production facilities fall within that exemption.

Asphalt plants operate under MPCA air quality permits and are subject to applicable federal and state air quality regulations. Asphalt pavement mixtures are composed of approximately 95% aggregate materials—stone, sand, and gravel—and approximately 5% asphalt binder.

MAPA also notes that asphalt production facilities exist solely to supply materials for transportation infrastructure construction and maintenance and requests that MPCA consider whether such facilities fall within the statutory exemption for "transportation facilities." MAPA requests that MPCA address this question explicitly in draft rule language.

II. Standard 3 Should Not Be Adopted as Proposed

Standard 3 would find an odor objectionable based on a single detection at a 7:1 dilution-to-threshold ratio, with human impact assumed rather than determined by MPCA. MAPA urges MPCA not to adopt Standard 3 in its current form.

A single olfactometer reading does not establish that an odor is persistent or recurring. Odors at industrial facilities fluctuate significantly based on production activity and meteorological conditions. Allowing a one-time reading to trigger management plan obligations, without any frequency element, could subject compliant facilities to burdensome requirements based on atypical conditions.

Additionally, assuming human impact rather than determining it appears inconsistent with the statutory definition of "objectionable odor" in Minn. Stat. § 116.064, which requires consideration of an odor's characteristics, intensity, frequency, and duration in assessing whether it meets the health, welfare, or enjoyment-of-life threshold. Standards 1 and 2 appropriately require an affirmative MPCA determination on this point. Standard 3 should do the same.

III. Measurement Should Occur During Representative Operating Conditions

MAPA requests that the rule require odor measurement to be conducted during normal production operations, not during startup, shutdown, or maintenance activities. Asphalt plants have predictable odor profiles tied to production activity, and measurements taken during atypical periods would not accurately represent routine facility operations.

Each olfactometer reading should also be accompanied by documentation of wind direction, wind speed, and temperature, as these factors significantly affect odor transport and perception.

IV. Odor Management Plans Should Recognize Existing Industry Practices

If a facility is required to develop an odor management plan, MAPA requests that MPCA recognize the following as qualifying mitigation measures:

- Warm mix asphalt (WMA) technology, which reduces production temperatures and can reduce odorous emissions while also providing environmental and operational benefits;
- Operational controls, including production scheduling adjustments intended to reduce odor impacts during adverse meteorological conditions; and
- Other site-specific operational practices that demonstrably reduce odor generation or off-site odor impacts.

Plans requiring capital investment should also include realistic implementation timelines that reflect equipment procurement, construction, and installation realities.

Conclusion

MAPA welcomes continued engagement as rule language is drafted and is prepared to provide additional technical information regarding asphalt plant operations and odor control practices. We respectfully request that MPCA address the exemption question explicitly in the draft rule and that the final rule reflect the standards and protocols outlined above.

Respectfully submitted,

Abbey Bryduck

Executive Director

Minnesota Asphalt Pavement Association

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(952) 250-1681

Laura Dholgraf

What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

How often would a resident be allowed to report an objectionable odor? If multiple residents report the same odor, how will those complaints be evaluated? How quickly would MPCA or another agency begin an investigation after a complaint is made? What evidence will be needed from residents to support a complaint? What enforcement actions will be available if a facility repeatedly causes objectionable odors?

What odors do you experience in your community? What odors concern you?

The awful odors from the Sanimax facility at 505 Hardman Ave S, South St Paul, MN 55075. The intensity and frequency of the odors impact the lives of everyone in the neighborhood.

How has odor affected your life? How do you deal with odor issues right now?

I have lived in South Saint Paul for seven years, and the odor from the Sanimax facility absolutely is horrendous! I have gone on bike rides along the Mississippi River Greenway and have been hit by a wall of terrible odor that smells like rendering animals, death, and decay. The smell can be SO strong that it has made me feel like I might throw up. Othertimes, my eyes water, and I feel the need to hurry home to the safety of AC and clean indoor air. Somedays the odor can be smelled from my front door. I have skipped walking my dogs in my own neighborhood when the smell gets bad because after a 15 minute walk I would get headaches. When the odor is strong, you don't want to be outside, and that's really frustrating since we only get so many nice-weather days each year. The odor also affects how I use and enjoy my home. I don't want to invite friends or family over to eat outside if there is a risk that the smell will make them lose their appetite, feel sick, or get headaches. No one should have to plan their daily activities or time outdoors around the smell from a nearby facility.

What outcomes would you like to see from the Odor Management Rule?

I would like the odor management rule to result in real accountability for facilities that create objectionable odors. Specifically, I would like to see facilities such as Sanimax fined until they fix their odor issues. If a facility repeatedly causes odors that interfere with residents' lives, there should be meaningful consequences and a clear requirement to correct the problem. I would also like the rule to give residents a clear and reliable way to report odor problems and receive follow-ups. People should know that their complaints are being taken seriously and that investigations will happen in a timely manner. Most importantly, I want to be able to enjoy the outdoors in my own neighborhood without dealing with horrendous odors. Clean air is essential to good health, wellness, and quality of life. Residents should be able to walk, bike, spend time outside, and invite people to their homes

without worrying that objectionable odors will ruin those experiences.

When does an odor become objectionable for you?

An odor becomes objectionable to me when it makes me feel physically sick, like feeling like I might throw up, causes headaches, or when it causes difficulty taking a deep breath. It's also objectionable when it interferes with my daily activities (walking my dogs, biking, spending time outside, opening my front door, or inviting people to my home).

 Thank you for considering my comments. I urge MPCA to adopt strong odor management rules that protect residents and hold facilities accountable when their emissions make it difficult for people to live, breathe, and enjoy their communities.

Preston Dholgraf

What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

No.

What odors do you experience in your community? What odors concern you?

I can smell Sanimax to some degree on most days in my yard in South St Paul. It makes recreation and doing business along Concord St and the river unbearable. I'm embarrassed to own a home in such a stinky location.

How has odor affected your life? How do you deal with odor issues right now?

I stay inside when I wish I could be out spending money at local businesses, riding my bike, gardening, or canoeing on the river, and refrain from inviting friends and family to South St Paul.

What outcomes would you like to see from the Odor Management Rule?

I would like Sanimax to finally be held accountable and made to stop polluting our area. Clearly, prior efforts have been unsuccessful.

When does an odor become objectionable for you?

When it smells like there's a dead, rotting animal in my yard/neighborhood.

Michael McGinley

What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

This was a good webinar to provide some overview of the direction MPCA is taking. I think there are some good elements here. The 2D/T choice is conservative from the standpoint that it should pull in more organizations into a program. I think this is a good direction as other regions have felt 7D/T is "too high". Many also argue that once an issue is present, the magnitude becomes less important and frequency alone becomes most important.

With the FIDO approach, it has been more common to have a final letter for context of the odor or for receptors. Is there any provision or consideration for odors near susceptible receptors? For example, near schools, daycare, residences vs industrial areas, etc.?

Something to consider. Would the action plan need more attention if this was odors near a school?

I think it will be very important that the steps after the limit is reached are well described. For example, the specific elements necessary in the OMP and whether sampling and odor testing will be required to properly document sources. Or if odor dispersion modeling would be required to document predictions for improvement options.

There was a comment in the webinar made about transportation sources. I think this is very important to consider. If trucks are hauling garbage, animal waste, compost, etc. on a routine basis, should this really not be considered is "temporary". If it is an integral part to their activities, it should likely be included. There are examples where garbage truck washing helped to mitigate odors to have trucks leaving a site with fewer odors.

What odors do you experience in your community? What odors concern you?

n/a

How has odor affected your life? How do you deal with odor issues right now?

n/a

What outcomes would you like to see from the Odor Management Rule?

While the regulatory "limit" is important, it will also be important to handle the next steps.

What are requirements of facilities in short and long term as well as how is a timeline managed to see results in reasonable periods of time. Reasonable both for the facility and for the citizens.

I would like to see information that may be helpful for cities and counties to address land use and zoning and basic information or assistance to handle new development questions. I am aware of towns attempting to deal with grow facility odors as we saw counties trying to deal with CAFOs in the 2000s. There should be a sharing of knowledge to assist smaller municipal entities. This could help prevent more MPCA involvement later.

When does an odor become objectionable for you?

n/a



June 29, 2026

Ms. Alexa Golemo
Minnesota Pollution Control Agency
520 Lafayette Road N.
St. Paul, MN 55155

Ms. Golemo,

I write on behalf of the Minnesota Chamber of Commerce (Chamber), a statewide organization representing more than 6,300 businesses and more than 500,000 employees throughout Minnesota, in response to the Odor management rule information session request for comment.

The Chamber and its members recognize the importance of addressing odor concerns and emphasize that any regulatory approach should be grounded in objective, science-based standards and aligned with existing air permitting and compliance requirements.

Given the inherent subjectivity and technical complexity associated with odor, it is critical that the rulemaking prioritize: (1) objective, science-based standards; (2) clear and predictable regulatory processes; and (3) flexibility for facilities to implement site-specific solutions.

To achieve these objectives, the Chamber recommends that MPCA:

- Establish objective, measurable and meaningful criteria for determining what is an “objectionable odor” that distinguishes mere annoyances from what is unreasonable or injurious to health and welfare;
- Provide for appropriate methodology for equipment calibration;
- Implement a structured and predictable complaint and investigation process that does not rely solely on complaint volume and takes into consideration the number of complainants;
- Clearly define triggers, scope, and expectations for odor management plan requirements;
- Align any new requirements with existing air permitting frameworks to avoid duplicative or conflicting obligations;
- Provide flexibility for facilities to determine appropriate control strategies; and
- Establish clear timelines and expectations for agency review, implementation, and enforcement.

These principles are essential to ensuring that any regulatory approach is both effective in addressing odor concerns and workable in practice across affected industries.

Question 1: What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

Any definition of “objectionable odor” should be tied to objective, measurable criteria using standardized methodologies. Reliance on purely subjective determinations or complaint-driven assessments introduces significant variability and uncertainty, which undermines both enforceability and compliance. The Chamber encourages MPCA to adopt an approach that incorporates validated measurement techniques and trained assessors to ensure consistent and transparent application across facilities and jurisdictions.

The Chamber recommends that modeling not be used to quantify odors (slide 12). Not only is modeling a time-consuming and expensive task, but the results generated by the standard model (AERMOD) are only as good as the model inputs. Developing meaningful “odor rate” inputs with the necessary granularity is extremely challenging. In addition, the AERMOD model is poor at modeling fugitive sources, which are often associated with odor sources. In short, modeling provides no useful information about whether odors actually exist and is likely to be a wasteful exercise.

The Chamber questions the basis and necessity for the three parallel odor standards that the MPCA is considering (slides 18 to 20). Using a D/T threshold of 2 (slides 18 and 19) appears unreasonably stringent and inconsistent with odor programs in other jurisdictions, which typically use a D/T threshold of 7. Minn. Stat. 116.064(b) provides that an objectionable odor either (1) is, or can reasonably be expected to be, injurious to public health or welfare; or (2) unreasonably interferes with the enjoyment of life or the use of property of persons exposed to the odor. A D/T of 2, less than half of the lowest threshold used in other parts of the United States., does not meet either criteria. We are aware of no evidence that such minor odors are, or can expected to be, “injurious to public health or welfare.” Moreover, the statute requires the odor to cause an “unreasonable interference” with the enjoyment of life or the use or property. The mere detection of an odor beyond ambient air should not be considered an unreasonable interference and the use of such a low standard sweeps too broadly. Instead, we recommend that the MPCA focus the regulations on addressing “objectionable odors,” not any “detectable” odor.

The Chamber notes that “Odor Standard 2” (slide 19) implies that, as part of the investigation required by Minn. Stat 116.064, Subd. 4, MPCA staff will make multiple site visits within 30 days to take odor measurements at multiple locations. The Chamber seeks to understand whether this is correct and if so, the procedure for scheduling such site visits. We also incorporate our comments above on why a 2:1 D/T is inappropriate.

The Chamber suggests establishing a single “Odor Standard” that involves (i) odor detected with a field olfactometer at a 7:1 ratio of fresh air to odorous air to indicate intensity, (ii) odor detected by MPCA staff three times in 30 days to indicate frequency, (iii) odor detected for a certain number of hours per day and days per week or month to satisfy the duration criteria and (iv) a process for determining whether the odor is “reasonably injurious to public health or welfare”, or “unreasonably interferes with the enjoyment of life or use of property” to indicate human impact. The statute requires that “duration” be considered in determining what is “objectionable.” An odor present for a few minutes a day should not qualify, much less something detected three times in 30 days. This component seems to be missing from the odor standards being considered by MPCA.

The legislature exempted a number of odor emitting facilities from the legislation, indicating that odors from such operations are not legally objectionable. MPCA’s criteria for what is objectionable should consider those exemptions when evaluating complaints. If an odor referenced in a complaint is

comparable to a statutorily exempted odor, the agency should treat that odor similarly to the exempted odor.

The Chamber understands that MPCA intends to use a “Nasal Ranger” field olfactometer to quantify odor intensity as part of the odor standard(s) (slides 18 to 20), while Minn. Stat 116.064, Subd. 4 (a) (3) requires the use of a “precision instrument capable of measuring odors in ambient air”. The Chamber requests that MPCA justify how the “Nasal Ranger” satisfies the statute, given that this device relies on human subjectivity. The Chamber requests that the rule specify any training, certification, quality assurance, and documentation requirements that will apply if a field olfactometer is to be used to quantify odors as part of an investigation required by Minn. Stat 116.064, Subd. 4. The fact that an olfactory device, by its nature, is not a “precision instrument” contemplated by the statute is a further indication that a 7:1 D/T should be used. This D/T will better ensure that a detected odor is more likely objectionable within the terms of the statute and guard against the investigation of minor odors detected by the inherently subjective olfactory device.

The rule should also recognize that some facilities not subject to an exemption may have odors incidental to their operations that cannot be reduced below objectionable levels despite the full implementation of an odor management plan.

Question 2: What odors do you experience in your community? What odors concern you?

Question 3: How has odor affected your life? How do you deal with odor issues right now?

Question 4: What outcomes would you like to see from the Odor Management Rule?

Time, cost, and regulatory uncertainty are key factors influencing business operations and planning. Accordingly, the Odor Management Rule should establish clear, objective thresholds for when corrective action is required and provide a predictable framework for how odor concerns are evaluated.

Where complaints lead to an investigation and the outcome determines that an odor is not objectionable, that determination should provide a defined level of regulatory certainty. In those circumstances, facilities should not be subject to repeated investigations based on similar complaints without new or materially different information.

Providing clear standards, defined outcomes, and appropriate limits on repetitive investigations will reduce uncertainty, support more efficient use of agency resources, and ensure a consistent and balanced approach to addressing odor concerns.

The MPCA should also consider a sunset provision for odor management plans. For example, it would not be unexpected if “objectionable odors” occur during one-off or temporary events, such as construction and demolition projects, remodeling, or change in operational practices. A business should be able to demonstrate that the detected odors were the result of one-time events and allowed to terminate the odor management plan

Question 5: When does an odor become objectionable for you?

Question 6: General feedback.

The Chamber appreciates the complexity associated with investigating and responding to odor complaints, including the challenges posed by timing, variability in conditions, and limitations in available information.

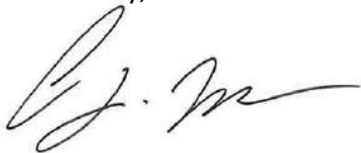
Timely communication is critical to effective evaluation of odor concerns. Facilities often are not made aware of complaints until days or weeks after they are reported, which limits the ability to assess potential causes and determine whether the odor originated from the facility at the relevant time. The Chamber recommends that complaints be shared promptly with the suspected source to allow for meaningful and timely evaluation.

To the extent odor management plans are required, the rule should include clear protections for proprietary and confidential business information. While certain operational details may be necessary to evaluate odor concerns, requirements should be appropriately tailored to avoid unnecessary disclosure of sensitive information unrelated to the specific issue under review.

The Chamber also encourages clarity in statutory and regulatory terms that may have broad or subjective interpretation. For example, phrases such as “injurious to public health or welfare” should be clearly defined and supported by objective criteria to ensure consistent and predictable application.

Finally, the rule should be designed to integrate with existing regulatory and permitting frameworks, avoiding duplicative or overlapping requirements that could create additional complexity without improving environmental outcomes.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Morley', with a stylized, flowing script.

Andrew Morley
Director, Environmental Policy
Minnesota Chamber of Commerce
amorley@mnchamber.com
763-221-7523

Andrew Morley

What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

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The rule should also recognize that some facilities not subject to an exemption may have odors incidental to their operations that cannot be reduced below objectionable levels despite the full implementation of an odor management plan.

What outcomes would you like to see from the Odor Management Rule?

Time, cost, and regulatory uncertainty are key factors influencing business operations and planning. Accordingly, the Odor Management Rule should establish clear, objective thresholds for when corrective action is required and provide a predictable framework for how odor concerns are evaluated.

Where complaints lead to an investigation and the outcome determines that an odor is not objectionable, that determination should provide a defined level of regulatory certainty. In those circumstances, facilities should not be subject to repeated investigations based on similar complaints without new or materially different information.

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The Chamber appreciates the complexity associated with investigating and responding to odor complaints, including the challenges posed by timing, variability in conditions, and limitations in available information.

Timely communication is critical to effective evaluation of odor concerns. Facilities often are not made aware of complaints until days or weeks after they are reported, which limits the ability to assess potential causes and determine whether the odor originated from the facility at the relevant time. The Chamber recommends that complaints be shared promptly with the suspected source to allow for meaningful and timely evaluation.

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Finally, the rule should be designed to integrate with existing regulatory and permitting frameworks, avoiding duplicative or overlapping requirements that could create additional complexity without improving environmental outcomes.

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June 28, 2026

Ms. Alexa Golemo
Minnesota Pollution Control Agency
520 Lafayette Road N.
St. Paul, MN 55155

Re: Owens Corning Comments on MPCA Odor Management Rulemaking

Ms. Golemo:

Owens Corning appreciates the opportunity to provide comments on the Minnesota Pollution Control Agency's Odor Management Rulemaking. Owens Corning appreciates MPCA's efforts to address odor concerns and encourages an approach that is objective, predictable, and workable for both communities and regulated facilities.

Owens Corning has operated its Minneapolis roofing facility for decades and has firsthand experience responding to odor concerns, evaluating mitigation measures, and engaging with regulators and community stakeholders. Based on that experience, Owens Corning believes the rule should prioritize objective standards, reliable complaint verification, defensible source attribution, practical and clearly bounded odor management plan requirements, and alignment with existing regulatory programs. These elements are necessary to provide regulated facilities with fair notice of their obligations and to support consistent, non-arbitrary implementation.

These comments reflect Owens Corning's perspective as a facility that may be directly affected by the rule and are intended to support development of an odor management program that is effective, technically defensible, and workable in practice.

Because this rulemaking will establish enforceable obligations for regulated facilities, MPCA should ensure that each material requirement is supported by a clear rulemaking record demonstrating statutory authority, need, reasonableness, and a rational connection between the evidence relied upon and the regulatory approach selected. In particular, the rule should be sufficiently clear and specific to provide fair notice of compliance obligations, limit subjective or inconsistent application, and avoid conferring unbounded discretion in complaint evaluation, source attribution, odor testing, odor management plan requirements, and enforcement.

Question 1: What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

Owens Corning has identified several areas where additional clarity is needed regarding how MPCA intends to implement the statutory framework in practice. However, as a threshold matter, MPCA should identify the statutory basis for each material obligation included in the rule and explain how each requirement fits within the authority granted by the Legislature. This is particularly important for requirements that may go beyond investigation procedures and impose operational, planning, disclosure, monitoring, or mitigation obligations on regulated facilities.

First, MPCA should clearly define what constitutes a "verifiable" odor complaint. The rule should specify what information must be included in a complaint and what criteria must be met before a complaint may be used to trigger an investigation. At a minimum, a verifiable complaint should contain sufficient information to allow MPCA and the facility to evaluate the reported condition, assess potential source attribution, and determine whether

facility operations may have contributed to the odor. Such information should include the name and contact details of the complainant, and the date and time that the complaint was submitted. For each odor observation, the information should include the date, time, location, and a description of the odor, including its intensity, frequency, and duration. The information should include the suspected source of the odor and the basis for this suspicion (e.g., wind direction). Providing an online form with a set of drop-down options would help ensure the collection of data needed to allow for meaningful evaluation and follow-up. The form could be completed by the complainant directly or by trained city staff if the complaint is reported via the City of Minneapolis's 311 service (or comparable municipal complaint hotline).

To verify an odor complaint, MPCA should review the date, time, and location of the observed odor and the suspected source identified in the complaint and use available contemporaneous meteorological data to determine whether the reported odor could conceivably have come from the suspected source. Without sufficient complaint information, neither MPCA nor the facility can develop a reliable record to support investigation, source attribution, or any subsequent regulatory determination.

MPCA should also clarify whether ten complaints must come from ten different individuals, households, or locations. Multiple complaints from the same individual, residence, apartment building, or coordinated reporting effort should not automatically be treated as independent complaints without further review. To ensure fair and consistent implementation, the rule should explain how MPCA will distinguish independent verifiable complaints from duplicative, incomplete, or coordinated submissions.

Second, in the investigation stage, MPCA should clarify how it will establish source attribution before requiring an odor management plan. This issue is particularly important in Minneapolis, where multiple potential odor sources may be present in close proximity. For example, odors resulting from road construction and repair activities or from commercial or residential roofing projects are easily confused with and erroneously attributed to odors associated with Owens Corning's Minneapolis plant. The rule should identify the evidence required to determine that a specific facility caused an odor and explain how factors such as wind direction, weather conditions, odor character, facility operations, and other potential sources will be evaluated. Before imposing facility-specific regulatory obligations, MPCA should develop a record sufficient to reasonably support the conclusion that the facility is the source of the odor at issue. The rule should require that field testing include taking measurements upwind and downwind of the suspected source to determine whether the suspected source is actually the source of the observed odor.

MPCA should clarify the procedures for conducting field testing as part of an investigation. Specifically, in conjunction with the proposed odor standard, how many site visits will be made and how many readings will be taken over what timeframe? For example, at least three site visits over a 30-day period, each visit taking odor measurements and collecting FIDOL¹ information at locations at the property line upwind and downwind of the suspected source, and at the locations of the nearest downwind residence/receptor. Requiring an odor management plan based on testing conducted on a single day, without additional supporting data, would raise significant concerns regarding the reasonableness and reliability of the resulting determination.

The statute requires that MPCA determine whether an odor is "objectionable" based on "the results of odor testing and considering the nature, intensity, frequency, and duration of the odor and other relevant factors." The rule should require MPCA to record FIDOL information with each odor test and quantify, to the greatest extent possible, each FIDOL element.

When taking odor measurements as part of an investigation, MPCA should also record contemporaneous meteorological data (wind speed, wind direction, temperature, barometric pressure, and whether the wind is steady or gusting) measured by a portable device. This is necessary because the nearest official meteorological

¹ Frequency, Intensity, Duration, Offensiveness, and Location.

station may be located far away from the source and there is a possibility that the station may not be collecting valid data at the time the measurements are being taken.

The statute also allows MPCA to “consider the opinions of a random sample of persons exposed to samples of the odor taken from ambient air beyond the property line of the facility that is the source of the odor.” The rule should require MPCA to follow this option, perhaps by sending a representative sample to a qualified laboratory for analysis by a human odor panel.

Third, MPCA should explain the technical basis for any proposed odor standard, particularly if it differs from the 7:1 dilution threshold commonly used in other jurisdictions. MPCA should also clarify why a 2:1 threshold is being considered and whether such a threshold can be applied consistently and reliably in practice. For any selected odor standard, MPCA should explain why that standard is needed, why it is reasonable, and how the evidence in the rulemaking record supports the selected threshold as compared to alternatives considered. If MPCA rejects standards used in other jurisdictions, including commonly used dilution-to-threshold approaches, the rulemaking record should explain the basis for that decision.

Fourth, MPCA should also address the inherent limitations of field olfactometry. While field olfactometers provide a numerical measurement, they still rely on human odor detection and can be affected by differences in odor sensitivity. The rule should identify any training, certification, quality assurance, or documentation requirements that will apply to odor investigations. Upon initiating an investigation, MPCA should provide an opportunity for the facility against which the complaints were made to conduct its own field olfactometry measurements side-by-side with MPCA.

Fifth, MPCA should clarify how it will determine whether an odor is “reasonably injurious to public health or welfare” or “unreasonably interferes with the enjoyment of life or use of property,” including the objective factors and evidence that will support those determinations. Terms that trigger regulatory obligations must be defined with sufficient specificity to provide fair notice and to avoid inconsistent or subjective application.

Finally, MPCA should clarify how odor management plans will be triggered, implemented, evaluated, and closed. The rule should identify what factual findings are required before a plan is imposed, what constitutes successful implementation, how much time facilities will be allowed to implement approved measures, and how MPCA will treat additional complaints or investigations while an approved plan is being implemented. This clarity is necessary to provide fair notice, avoid duplicative obligations, and ensure that enforcement is based on defined standards rather than open-ended discretion.

The rule should state that the odor management plan may include a description of the odor mitigation options considered by the facility and a discussion of their technical feasibility, costs, and impact on operations.

MPCA should explain how cost, technical feasibility, operational impact, and proportionality will be considered when evaluating odor mitigation measures. The rule should not require measures that are technically infeasible, disproportionate to the verified concern, or unsupported by the rulemaking record.

The rule should state that a successful odor management plan will reduce odors to a level where they are no longer considered objectionable but may not result in their complete elimination.

Question 2: What odors do you experience in your community? What odors concern you?

Owens Corning recognizes that communities experience odors from a variety of industrial, commercial, construction, transportation, municipal, agricultural, and natural sources. Because multiple potential odor sources may exist within a community, Owens Corning's primary concern is ensuring that regulatory decisions are based on objective standards and a reliable process for identifying the source of an odor. Without these elements, complaints cannot be reliably evaluated or used as a basis for regulatory action.

Owens Corning encourages MPCA to distinguish between community concern, odor detection, and regulatory determination. Community complaints are important and should be taken seriously. However, a complaint should trigger evaluation; it should not, by itself, establish that an odor is objectionable or that a particular facility caused the odor.

As a facility operator, Owens Corning has experience responding to odor concerns, evaluating potential odor sources, and implementing mitigation measures. Based on that experience, Owens Corning believes timely and contemporaneous communication is critical to effective odor evaluation.

When a facility is notified of an odor concern without sufficient detail or after a delay, it may be difficult to evaluate relevant operating conditions, meteorological conditions, and other factors necessary to assess the reported event and potential sources. Owens Corning encourages MPCA to incorporate prompt notification and complete complaint information to suspected sources as part of the investigation process so facilities can meaningfully evaluate and respond to complaints.

Owens Corning also recognizes that odor mitigation is often an iterative process requiring evaluation, engineering review, design, procurement, installation, operational adjustments, and follow-up assessment. The rule should recognize these practical realities and provide facilities reasonable time to evaluate and implement effective solutions based on site-specific conditions.

Question 4: What outcomes would you like to see from the Odor Management Rule?

Owens Corning would like to see an approach that is supported by the rulemaking record and that:

Establishes a clear, objective, and defensible definition of "objectionable odor." Facilities and communities should have a clear understanding of what constitutes an exceedance and how odor standards will be applied in practice.

Ensures each material requirement is supported by a demonstrated need, a reasonable basis, and a clear connection to the evidence in the rulemaking record.

Includes a structured complaint verification process and clear criteria for when investigations are warranted. As discussed above, complaints should contain sufficient information to support meaningful evaluation and source identification.

Includes a defined process for distinguishing independent, verifiable complaints from duplicative, coordinated, or unreliable complaint activity. The rule should specify how MPCA will identify unique complainants, locations, and odor events; screen for repeated complaints from the same source; evaluate complaints submitted through coordinated campaigns; and exclude complaints that lack sufficient detail, are redundant, or appear intended to meet a complaint threshold rather than document a genuine odor event.

Provides a reliable and transparent process for source attribution before regulatory obligations are imposed on a facility. Facilities should not be required to implement odor management measures absent a reasonable basis to conclude they are the source of the odor.

Establishes appropriate standards and safeguards for odor measurement and investigation methods. Any measurement approach should be objective, consistently applied, and supported by clear investigation protocols.

Clearly defines when an odor management plan is required and what elements such a plan should contain. The rule should provide predictable expectations while allowing facilities flexibility to develop site-specific solutions.

Provides a clear process for evaluating odor management plans and clarifies how complaints, investigations, and enforcement will be handled while an approved plan is being implemented. Facilities should understand what constitutes successful implementation and how MPCA will evaluate ongoing concerns during that process.

Allows reasonable time for evaluation, engineering review, permitting, procurement, installation, and verification of mitigation measures. Odor mitigation often involves technical and operational changes that cannot be implemented immediately.

Aligns with existing air permitting and compliance programs and avoids creating duplicative or conflicting requirements. New odor requirements should complement existing environmental obligations rather than create a separate parallel regulatory framework.

Question 5: When does an odor become objectionable for you?

Owens Corning believes an odor should be considered "objectionable" only where there is a documented, objective basis for that determination. Individual observations may appropriately trigger evaluation, but a regulatory determination should not rely solely on subjective perception, complaint volume, or a single measurement.

As discussed above, MPCA should adopt a clear and defensible framework for determining when an odor becomes objectionable and should distinguish between odor presence, odor intensity, and objectionable odor.

The final rule should be administrable in a way that allows facilities, communities, and regulators to understand in advance what evidence is required and what consequences may follow from a particular determination.

Question 6: General feedback

Owens Corning appreciates MPCA's early engagement on this rulemaking. Because MPCA has indicated that the concepts presented are preliminary and no final decisions have been made, Owens Corning encourages MPCA to use this stage of the process to develop a rule that is practical, technically defensible, and capable of consistent implementation.

In addition to the comments above, Owens Corning offers the following general recommendations:

1. Require prompt notice to the suspected source. Facilities should receive timely notice of odor complaints and sufficient information to evaluate the concern while relevant operating, weather, and other data are still available. Without timely notice, meaningful investigation and response may be significantly limited.
2. Require a complaint integrity screening process. MPCA should establish a clear process for determining whether complaints are independent, verifiable, and reliable before they are used to trigger investigation, impose regulatory obligations, or evaluate the effectiveness of an odor management plan. That process should distinguish unique complaints from repeated complaints by the same individual or location, coordinated complaint campaigns, duplicative submissions, complaints lacking sufficient detail, and

complaints that appear intended to meet a regulatory threshold rather than document a discrete odor event.

3. Protect confidential business information. Odor management plans may require discussion of facility operations, materials, equipment, process conditions, emissions, and control strategies. MPCA should include clear protections for confidential business information and limit required disclosures to information reasonably necessary to evaluate the odor issue.
4. Define how odor management plans will be evaluated and closed. The rule should identify how MPCA will determine whether a plan has been successfully implemented. Success should not be measured solely by the absence of complaints, because complaints may continue for reasons unrelated to facility performance or may involve sources outside the facility's control. MPCA should consider whether approved measures were implemented, whether objective conditions improved, whether identified sources were addressed, and whether additional reasonable measures are available.
5. Provide a protected implementation period after verification and approval of an odor management plan. If MPCA verifies an odor concern and requires mitigation measures, the rule should recognize that effective controls may require engineering evaluation, design, air permitting, procurement, installation, startup, and performance verification. During the period in which a facility is diligently pursuing approved mitigation measures, including any required MPCA air permit amendment or approval, the facility should not be subject to additional odor management plan requirements, repeat investigations, or enforcement based on the same verified odor issue. Any implementation schedule should account for MPCA's own air permitting timelines and should not penalize a facility for delays attributable to agency review or approval.
6. Coordinate odor requirements with existing regulatory programs. MPCA should ensure that odor-related requirements align with existing air permitting and compliance programs and do not create duplicative or conflicting obligations.
7. Build a defensible rulemaking record. MPCA should clearly explain the need for each material requirement, the evidence supporting the selected approach, and why the requirement is reasonable in light of alternatives, technical feasibility, cost, operational impact, and existing regulatory requirements.

Conclusion

Owens Corning supports a rulemaking process that addresses odor concerns through clear standards, reliable procedures, practical implementation requirements, and a rulemaking record that demonstrates statutory authority, need, reasonableness, and technical support for the selected approach. Owens Corning's Minneapolis facility has direct experience with odor complaints, agency engagement, community outreach, and technical evaluation of odor reduction opportunities. That experience demonstrates the importance of an approach that is objective, predictable, and capable of consistent implementation.

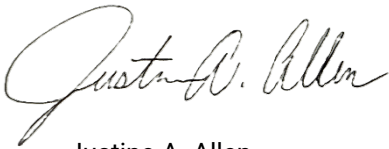
Owens Corning respectfully encourages MPCA to:

- Demonstrate the need and reasonableness of each material requirement;
- Clearly define "verifiable complaint";
- Define terms and procedures with sufficient specificity to provide fair notice and limit subjective or inconsistent application;
- Require timely notice to suspected sources;
- Establish a defensible source attribution process;

- Establish safeguards to distinguish independent, verifiable complaints, rather than duplicative or coordinated submissions;
- Adopt objective odor standards supported by a clear technical basis;
- Address human sensitivity and measurement variability in field olfactometry;
- Define key statutory terms such as “reasonably injurious” and “unreasonably interfere”;
- Provide clear, facility-specific odor management plan requirements;
- Allow reasonable implementation timelines;
- Protect confidential business information; and
- Align the rule with existing air permitting and compliance frameworks.

Owens Corning appreciates MPCA’s consideration of these comments and looks forward to continued engagement as the rulemaking process proceeds.

Sincerely,

A handwritten signature in black ink, reading "Justine A. Allen". The signature is fluid and cursive, with the first name "Justine" being more prominent and the last name "Allen" following in a similar style.

Justine A. Allen
Regulatory Counsel
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Michael Pray

What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

Are car wash detergent VOC odors affected by this legislation?

What odors do you experience in your community? What odors concern you?

I have lived in the same condo for nearly 25 years. I'm on the HOA's SW corner, adjacent to a relatively new car wash, " Mister Carwash" @ 12218 Business Park Blvd N, Champlin, MN 55316.

The strong smell of detergents when the wind is coming from the SW can be nauseating.

I'd appreciate any support you can render. Thank you.

How has odor affected your life? How do you deal with odor issues right now?

Shut the windows, meaning I miss out on otherwise beautiful days.

What outcomes would you like to see from the Odor Management Rule?

Filtering of vent line output or whatever the cause is determined to be.

When does an odor become objectionable for you?

It becomes objectionable when I become nauseous.

Suresh Relwani

What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

No question just comments on the proposed approach and odor levels recommendations. But first of all, wanted to congratulate MPCA to take initiative to come with odor management plan document. Good step. Yes, complaints are the reason to target odor management plan but odor management plan should be based on odor science and not just “no odor complaints” criteria.

What odors do you experience in your community? What odors concern you?

We are engineering and odor science consultants so have seen all kind of odors from industrial, commercial operations

How has odor affected your life? How do you deal with odor issues right now?

Odor is a nuisance issue. It is not health concern issue. In my opinion both should be kept separate. Odor control plan should be purely focused on odor science and not health issue. There are several other agencies and regulation for health issue and this odor management plan criteria should be purely based on odor nuisance criteria. Mixing them will create confusion and will defeat the purpose of this plan.

What outcomes would you like to see from the Odor Management Rule?

Industry should be able to install state-of-art technology for its operation to keep average citizen with normal sense of smell to live in a nuisance free environment. Objective should not be to have industry install control beyond state of the art to just protect the most sensitive olfactory capabilities person. That would negatively impact community development plan because industries will shy away from area. In addition, very aggressive odor standards will generate lots of class action lawsuits and in my opinion that would not be a good outcome.

When does an odor become objectionable for you?

I think D/T over 4 being objectionable is more reasonable. D/T of 2 will generate lots of false positive odor nuisance cases and lots of class action lawsuits. MPCA's resources will be wasted. Even California uses D/T of 5 as nuisance criteria. Papers publish by some authors state than generally for less than 5 level, one does not see complaints. May be few sensitive people but the like all air pollution regulation focus should be for average not the most sensitive. Some acceptable level of risk is always required for a balance between the industry, community, and economical growth.



1. D/T of 2 is too aggressive and not necessary. D/T of 4 or above is reasonable.
2. Odor control plan should stay away from health concerns. There are other agencies and regulations address those. When you have odor issue address odors and if health concerns come up reference them other agency for those. Objective of this plan is to reduce odor impact, period.
3. Odor plan states exempt sources. Why exempt? What about their neighboring community? What about synergistic impact by 2/3/or 4 nearby sources. One may say well combined impact from wastewater/my facility causes nuisance but wastewater is exempt so my fault? Too many legal issues. I was involved in one legal case when judge was having difficulty with different odor standards for different industries. He thought whether it was violating equal/ fair protections. I am not a lawyer, but MPCA may want to look into it further for exempt sources. Why only them?

T S

What additional questions do you have after attending/watching the Odor Management Rulemaking webinar?

How quickly will someone be on site to investigate an odor complaint?

What odors do you experience in your community? What odors concern you?
Chemical/film production at/near my workplace.

What outcomes would you like to see from the Odor Management Rule?
Responsiveness to odor problems.

When does an odor become objectionable for you?
Interferes with comfort in taking a deep breath