



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590

Mary Ann Dolehanty
Air Quality Division
Michigan Department of
Environment, Great Lakes and Energy
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Lansing, Michigan 48909-7973

Dear Ms. Dolehanty:

This letter is in regard to Michigan Department of Environment, Great Lakes and Energy's (EGLE's) draft Permit to Install (PTI) for Ajax Materials Corporation (Ajax) – PTI Application No. 2021-0019. The PTI would allow Ajax to install and operate a new hot mix asphalt plant at 5088 Energy Drive in Genesee Township, near the Flint border. Ajax intends to accept permit limits to ensure that emissions from the proposed facility would not exceed the major source threshold. The U.S. Environmental Protection Agency (EPA) has reviewed the draft PTI and associated permit files.

EPA is committed to advancing environmental justice and incorporating equity considerations into all aspects of our work. This commitment includes improving our assessment and consideration of the impacts of permits on communities already overburdened by pollution. As described below in more detail, we appreciate that EGLE shares this commitment and has taken steps to mitigate potential impacts from the proposed facility.

The neighborhood around the proposed asphalt plant has some of the highest levels in the State of Michigan for many pollution indicators used by EPA's environmental justice screening tool, EJSCREEN. EJSCREEN is a mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. It is a useful first step in understanding or highlighting locations that may have environmental justice concerns.

Like EPA, EGLE recognizes the challenges faced by this community. The Environmental Justice Index for eight of the eleven EJSCREEN indicators in the one-mile area around the proposed Ajax site exceeds the 90th percentile in the State of Michigan, including indices for

particulate matter of less than 2.5 microns in diameter, ozone, air toxics cancer risk, respiratory hazard, lead paint, Superfund proximity, hazardous waste, and wastewater discharge. The population of the people who live in the area around the proposed asphalt plant is disproportionately low income, people of color, and includes persons with limited English proficiency. The proposed Ajax site is in an area that is already heavily populated by industrial facilities along Dort highway and is in close proximity to residential housing and community centers.

EPA acknowledges the work EGLE has already undertaken on this permitting action, work that may go beyond what is usually required in Michigan for issuing a minor source air pollution control construction permit. EGLE required the applicant to conduct dispersion modeling for multiple air pollutants, including toxic cancer-causing compounds, to assess the potential impacts of this air pollution permit. EGLE has provided an extended opportunity for public comment, held both a virtual information session and hearings, and an in-person comment session, as part of its enhanced public outreach efforts to the community. EGLE also accepted comments via regular mail, voicemail, email, and in-person.

Our concerns, comments, and recommendations are included in the attachment to this letter. We highlight a few key comments here. First, because the proposed site for the Ajax facility is in an area with identified air quality concerns in EJSCREEN, EPA recommends a cumulative analysis of the projected emissions from all emission units at the proposed facility, fugitive emissions from the proposed facility, and emissions from nearby industrial facilities, to provide a more complete assessment of the ambient air impacts of the proposed facility on this community. Next we strongly encourage EGLE to assess the use of opacity cameras and other practically enforceable continuous compliance measures to assure that Ajax is meeting its permitted limits and following industry best practices. We also recommend that if the proposed asphalt plant is permitted, data regularly generated by Ajax to comply with the permit be made publicly available on an easily accessible website. The transparency of such data will promote public engagement and help build trust among all stakeholders.

Finally, because of the environmental conditions already facing this community, and the potential for disproportionate impacts, the siting of this facility may raise civil rights concerns, so it is important that EGLE assess its obligations under civil rights laws and policies. We understand that EGLE requested Ajax to consider alternative sites for this asphalt plant, but that the company declined to do so. Any of the additional analyses EPA is recommending may provide additional information in support of EGLE's evaluation of whether the proposed construction will cause adverse and disproportionate impacts for nearby residents. If so, we encourage the company, EGLE, and local authorities to consider again whether construction at an alternative site would avoid the potential for such impacts. We further encourage Ajax and EGLE to engage with the local community to address community concerns that may not be within the scope of the air permit.

Thank you again for the opportunity to work with you on this draft permit. EPA remains committed to working together with EGLE to address our shared environmental priorities,

advance equity, and reduce potential environmental and health impacts on communities such as this one.

Sincerely,

Cheryl L. Newton
Acting Regional Administrator

Enclosures

Detailed Permit Comments
Ajax Materials Corporation
PTI APP-2021-0019

EPA has reviewed the draft PTI and associated permit files, including the technical fact sheet and permit application materials made available by EGLE during the public comment period, and has the following comments and recommendations:

1. We recommend that you evaluate whether additional nearby stationary sources and fugitive sources from the proposed facility should be included as part of the air quality modeling EGLE has required for this permit. The cumulative impacts analysis only considered the impacts associated with the proposed project. Neither nearby sources nor fugitives from the proposed facility were included in the modeling. We observe that Ajax is proposing to construct in an area where other stationary sources are already located and may be impacting the local community. Additionally, the toxic air contaminant (TAC) modeling does not consider all sources of stack and fugitive emissions. We recommend this analysis include an assessment of whether the source-wide TAC emissions from both fugitive and non-fugitive sources exceed EGLE's initial threshold screening level (ITSL) or initial risk screening level (IRSL).
2. 40 CFR 60.92(a)(2) establishes an opacity requirement applicable to each hot mix asphalt facility. This opacity requirement does not appear within the draft permit. EGLE should include the necessary opacity limit in the permit and incorporate opacity testing requirements consistent with 40 CFR 60.93. To ensure ongoing compliance and practical enforceability of this limit, EGLE should also establish a periodic (at least quarterly) opacity testing requirement applicable to the affected facility.
3. EUHMAPLANT Special Condition (SC) V.2 – V.4 lists the general test methods Ajax is to use to ensure compliance with the applicable permit conditions. The current draft permit only contains general citations to the appendices containing relevant test methods for Parts 60, 61, and 63. We recommend that EGLE specify in the permit the particular test method protocols for each pollutant that Ajax will be using to ensure compliance once the facility is constructed and operating. The permit can include a provision that requires EGLE approval of the test plan submitted by the permittee prior to testing, but approval of modifications to EPA test methods, as found in the appendices to Parts 60, 61, and 63, can only be done by EPA. EPA is available to assist EGLE in determining the appropriate test methods for each pollutant in order for Ajax to ensure compliance with the permit limit conditions.
4. EUHMAPLANT SC V.5 requires particulate matter testing pursuant to 40 CFR Part 60 Subparts A and I. Although this condition incorporates the testing required by the federal requirement, permit condition SC V.5 does not require periodic testing to determine compliance with the particulate matter emission limit in 40 CFR 60.92. To ensure ongoing compliance with the emission limit and improve enforceability of the NSPS Subpart I PM limit, we request that the permit include periodic PM testing performed according to the procedures included within 40 CFR 60.93.

5. FGFACILITY SC I.3 and I.4 contains facility-wide general limits on hazardous air pollutants (HAPs) for individual and aggregate HAPs of less than 8.9 and 22.5 tons per year, respectively, on a 12-month rolling average. The monitoring and recordkeeping requirements for these conditions (FGFACILITY SC VI.2) only state that the permittee is required to use emission calculation records to ensure compliance with the limits. We request the permit specify the methodology Ajax will use to demonstrate compliance with the HAP limits, and that the permit record include an explanation of how this methodology will ensure that HAP emissions remain below the major source threshold.
6. EUHMAPLANT SC V.1 and V.2 requires the permittee to verify via stack testing carbon monoxide (CO) and toxic air pollutant emissions upon EGLE's request. This condition does not require periodic testing to determine compliance with the hourly CO emission limit established in SC I.8, nor does it require periodic testing to determine compliance with the air toxics emission limits established in SCs I.14 through I.25. We request that you require periodic testing to determine compliance with the emission limits in SCs I.8 and I.15 through I.25. Periodic testing would help ensure that the source is complying with its CO and air toxics emission limits, which improves the practical enforceability of each limit and further ensures that the local community is not subjected to emissions exceeding the corresponding limit.
7. EUHMAPLANT SC V.3 requires a one-time test to verify PM₁₀, PM_{2.5}, NO_x, and lead emissions from the plant. EUHMAPLANT SC V.4 is a similar requirement that applies when the source combusts recycled used oil (RUO) and includes testing for SO₂ emissions. It is not clear whether a one-time test ensures that each emission limit is enforceable as a practical matter, however, as it is unclear whether emissions vary over time or with the type of asphalt being produced or fuel being combusted, suggesting that periodic testing may be appropriate to ensure ongoing compliance with each limit. We request that you revise SC V.3 and V.4 to require periodic testing to better ensure that the PM₁₀, PM_{2.5}, NO_x, lead, and SO₂ emission limits are enforceable as a practical matter. For any pollutant where EGLE determines one-time testing is sufficient, we request that EGLE provide justification as part of the permit record.
8. EUYARD SC I.2 restricts all visible emissions from the pile when winds are below 12 miles per hour (mph) and limits opacity to 20% when winds exceed 12 mph. Since the modeling analysis relies on a windspeed threshold that exceeds approximately 11.50 mph,¹ we recommend that you revise this condition to apply to winds that are below 11.50 mph. Also, the draft permit does not require the permittee to perform periodic visible emissions monitoring when winds are below 12 mph nor to quantify opacity when winds are at least 12 mph. To ensure ongoing compliance with the visible emissions requirements and to ensure practical enforceability of the opacity limit, we request that you incorporate periodic visible emissions monitoring and periodic opacity monitoring to evaluate and quantify fugitive dust emissions.
9. The fugitive dust control plan in Appendix A requires the permittee to maintain piles to prevent fugitive dust consistent with EUYARD SC I.1 (see Appendix A, condition 7.b). As

¹ 5.14 m/s ≈ 11.50 mph.

written, it is unclear what fugitive dust control measures will be implemented to prevent fugitive dust emissions from the pile. EUYARD SC I.1 appears to apply to all roads and unpaved travel surfaces, not the piles. To ensure the enforceability of the fugitive dust control plan and SC III.1, we request that you specify the measures that will be employed to control fugitive dust from the mineral aggregate piles. We request that you require each material storage pile to be covered or enclosed to mitigate potential fugitive dust emissions. In addition to reducing fugitive particulate emissions, covered piles may also require less water to control fugitives, potentially reducing the amount of fuel required to dry aggregate and other materials to specification. For any uncovered piles, we request that you specify the conditions which require the application of water or other chemical wetting agents or other methods that may be required to control fugitive emissions. For active piles, we request that the fugitive dust control plan specify the measures the permittee will employ to minimize fugitive dust emissions. Once these control measures have been identified, the fugitive dust control plan should be updated to require recordkeeping to ensure any fugitive dust control measures have been implemented.

10. EUYARD SC IV.1 requires the applicant to monitor wind speeds to determine compliance with the applicable visible emissions requirement in SC I.2. However, neither the fugitive dust control plan in Appendix A nor the draft permit section EUYARD require the permittee to implement fugitive dust control measures when winds are measured at or above 12 mph. To ensure fugitive dust is minimized when winds are above 12 mph and to better ensure compliance with the opacity limit in SC I.2, we request that you require the implementation of fugitive dust control measures when measured winds exceed 12 mph. We further recommend implementing fugitive dust control measures when measured winds are near, but do not exceed, 12 mph to mitigate potential fugitive dust emissions and further ensure compliance with the opacity limit.
11. The PM₁₀ and PM_{2.5} modeling analyses consider one year of meteorological data instead of five years and considers emissions from the larger pile when winds for a particular hour exceed 5.14 m/s (approximately 11.50 mph). We are concerned that the applicant's modeling analysis may underestimate ambient particulate impacts associated with this project. We recommend reevaluating the modeling analysis to ensure that the project's ambient PM₁₀ and PM_{2.5} impacts are not underestimated.
12. EUHMAPLANT SC V.1 requires the permittee to verify and quantify odor emissions upon EGLE's request. We recommend that EGLE evaluate whether recurring odor emission testing is appropriate pursuant to R 336.2001(1)(c). Recurring odor emission testing would allow EGLE to better determine compliance with R 336.1901 and more readily address the local community's potential odor concerns.
13. We recommend that EGLE consider whether it has the authority or discretion to include in the permit a requirement that the results of recurring compliance testing be made available to the public on an easily accessible website. The public posting of, e.g., the results of odor and opacity testing, virgin aggregate/RAP continuous monitoring (required by EU HMAPLANT SC VI.2), particulate and HAP emission testing, and wind speed measurements (required by EU HMAPLANT SC VI.1), would ensure transparency for the affected community.

14. Additional justification should be provided in the permit record to support the air quality analysis and the applicant's use of wind speed thresholds as it applies to the storage pile. Although the applicant cites Wisconsin's Air Dispersion Modeling Guideline as support, we note that Wisconsin's guideline does not provide justification for the approach and is nonbinding on other air permitting authorities. EGLE, as the air permitting authority for this action, has the discretion and authority to request certain air quality analyses for minor NSR permit applications. Michigan's R 336.1241, a requirement approved into Michigan's state implementation plan, requires EGLE to follow procedures and measures listed in the *Guideline on Air Quality Models* at 40 CFR Part 51 Appendix W (Appendix W). In addition to establishing certain requirements and recommendations applicable to NAAQS compliance demonstrations, Appendix W Section 1.0 encourages the use of sound scientific judgment in an air quality analysis and considers the judgment of meteorologists, scientists, and analysts essential. For this permit action, the analysis EGLE conducted and the judgment it exercised as part of the decision-making process should be fully documented within the permit record. Should EGLE choose to allow this approach for any proposed pile, the approach should be evaluated on a case-specific basis that is well documented within the permit record.
15. For all pollutants, the dispersion modeling conducted for this permit relies on one year of National Weather Service (NWS) meteorology collected from Bishop International Airport. Appendix W Section 8.4.2(e) recommends acquiring enough meteorological data to ensure that worst case meteorological conditions are adequately represented in the model results and requires the use of 5 years of representative NWS data. We request that you conduct the criteria pollutant and TAC analysis using 5 years of meteorological data. We recognize that R 336.1241 provides EGLE discretion to allow the use of only 1 year of NWS data for nonmajor PTIs.² The PM₁₀ and PM_{2.5} analyses restrict the hours that the pile may emit fugitives based on hourly wind speeds, suggesting that a larger meteorological database may be necessary to capture worst case meteorological conditions. The TAC analysis may also be improved to capture worst case meteorological conditions that may not be present in one year of NWS data. Modeling based on 5 years of meteorological data increases the likelihood that the worst-case meteorological conditions are considered as part of this analysis and would be consistent with NAAQS analyses conducted for other regulatory purposes.
16. Dispersion modeling for particulate emissions relies on a critical wind speed threshold of approximately 11.50 mph for the purpose of considering fugitive emissions from the pile. From information included in the permit record, it appears that the applicant analyzed the daily fastest mile and daily surface friction velocity. However, it is unclear whether the analysis considers hourly wind speeds and sub-hourly gusts. It is not clear whether the modeling excludes emissions from the pile during hours where gusts exceed the critical wind speed threshold. AP-42 Section 13.2.5.2, a document cited by the applicant, suggests that "estimated emissions should be related to the gusts of the highest magnitude" and that "peak

² R 336.1241 states in relevant part that "[...] the demonstration may be based on the maximum ambient predicted concentration using the most recent calendar year of meteorological data from a representative national weather service [...] station."

winds can significantly exceed the daily fastest mile.”³ This suggests that gusts play a large role in fugitive dust emissions and should be evaluated as part of this analysis. The meteorology used in the modeling analysis is based on 1-minute National Weather Service (NWS) data, enabling an analysis of sub-hourly winds. We recommend that the applicant analyze the 1-minute data to determine whether certain hours contain sub-hourly gusts exceeding the critical wind threshold to further ensure that the analysis does not underestimate ambient PM₁₀ and PM_{2.5} impacts.

17. The applicant cites several documents suggesting that the critical wind speed threshold for the pile is 12 mph. However, it is unclear whether and to what extent the stockpiles analyzed in each document are representative of the applicant’s proposed pile. Although the information provided in each document may be helpful to estimate emissions for applicability purposes, it is less clear whether this information is sufficient to determine the critical wind threshold for the proposed stockpile. None of the documents appear to analyze asphalt plants in particular. Would the applicant’s proposed pile contain material with the same particle size distribution as that analyzed within each cited document? Are there other asphalt plant pile parameters that may affect the critical wind speed threshold that are not reflected in the cited documents, such as moisture content or how well each pile is mixed? We recommend that the applicant evaluate the composition of the proposed pile to further justify whether the comparison is adequate. Lack of a case-specific analysis of the composition of the proposed pile at the source may understate fugitive particulate emissions from the pile, potentially underestimating the modeled impacts attributed to the pile.
18. It is not clear whether the modeling considered other activities that may generate fugitive emissions from the pile. The analysis offered by the applicant appears to focus solely on wind-blown emissions without considering how working the pile may affect the generation of fugitive particulate emissions. We recommend that the applicant address potential fugitive emissions that may be generated while the source works the pile and evaluate whether the current analysis adequately evaluates emissions generated at these times. The permit does not otherwise restrict the applicant from working the pile, suggesting that fugitive emissions associated with working the pile should be included as part of the analysis.
19. The modeling analysis excludes receptors within the proposed property line. Section 6.1.3.1 of the December 21, 2020 application states that the applicant will “prevent access to the property by the general public through a combination of fencing, berms, trees, and shrubs” around the property line. Given the lack of further detail in the application, it is unclear whether this combination of measures as stated within the application would be effective in precluding access to the land by the general public. Appendix W section 9.2.2 recommends the placement of receptors throughout the modeling domain. The December 2, 2019 Revised Policy on Exclusions from Ambient Air⁴ states that receptors may be excluded over land owned or controlled by the stationary source “where the source employs measures, which may include physical barriers, that are effective in precluding access to the land by the

³ AP-42 Chapter 13.2.5 – Industrial Wind Erosion is available online at https://www.epa.gov/sites/default/files/2020-10/documents/13.2.5_industrial_wind_erosion.pdf.

⁴ The Revised Policy on Ambient Air is available online at https://www.epa.gov/sites/default/files/2019-12/documents/revised_policy_on_exclusions_from_ambient_air.pdf.

general public.” We recommend that the applicant identify where each proposed measure will be employed so that EGLE can evaluate whether the proposed measures effectively preclude the general public’s access to land owned or controlled by the proposed source.

20. The proposed fugitive dust controls described by the applicant include “the presence of berms (approximately 7 feet tall), trees on top of those berms (approximately an additional 7 feet tall when planted), and the fence next to the berm.” We support the implementation of berms and windbreaks to mitigate fugitive dust emissions from the source. However, neither the draft permit nor fugitive dust control plan requires the applicant to install and maintain berms, windbreaks, and covered piles to control fugitive dust emissions. We recommend that EGLE include enforceable permit conditions requiring the source to implement and maintain the selected fugitive dust control measures such as berms, windbreaks, and covered piles.
21. The TAC analysis uses the results of generic TAC modeling to estimate the TAC impacts in relation to the appropriate ITSL or IRSL. The generic TAC modeling result is based on modeled impacts from the drum dryer stack. Although most TAC emissions are emitted from the drum dryer stack, TACs are also emitted from the silo heater, silo filling and loadout processes, and the asphalt cement storage tank. We recommend that you consider modeling each process or emission unit that does not exhaust to the drum dryer stack to avoid underestimating TAC impacts. Dispersion characteristics may differ depending upon the process, potentially resulting in underestimated TAC impacts where a given process has worse dispersion characteristics than the drum dryer stack.
22. Although the NAAQS and PSD increment analysis considers the impact of fugitive emissions from several sources, it is unclear whether the TAC analysis considers fugitive emissions from similar sources. Are there any fugitive TAC emissions that should be considered as part of the TAC analysis? We suggest that you either revise the TAC analysis to include fugitive TACs not already considered or provide justification explaining why fugitive emissions do not need to be included in the analysis.
23. EUHMAPLANT SC II.4 limits recycled asphalt pavement (RAP) to a maximum of 50 percent on a monthly average. We recommend EGLE require compliance with this limit on a shorter-term basis than monthly (such as daily). We note that the draft permit requires the source to continuously monitor the RAP feed rate (see EUHMAPLANT SC VI.2), suggesting that the permittee would already collect data that can be used to determine compliance with the limit on a shorter-term basis. AP-42 section 11.1.1.3 suggests that RAP can be processed at ratios up to 50 percent with little or no observed effect upon emissions. AP-42 is silent with respect to emissions above the 50 percent ratio and does not differentiate between averaging times.
24. EUHMAPLANT SC I.4 through I.7 include a reference to footnote c. However, footnote c does not appear to be included within the emission limit table. We request that you specify footnote c or revise each special condition to remove the reference to this footnote.
25. EUHMAPLANT SC I.4 and I.6 each cite 40 CFR 52.21 (c) and (d) as an underlying applicable requirement. We recommend that you verify whether each special condition cites

the appropriate underlying authority. We note that Michigan has a SIP-approved version of each requirement at R 336.2803 and R 336.2804, respectively.

26. EUHMAPLANT SC II.1 allows the permittee to burn recycled used oil (RUO). We recommend that the permittee consider not using RUO as a fuel for the proposed source. Although EGLE has established requirements that apply when combusting RUO,⁵ eliminating the use of RUO as a fuel could reduce air toxics and sulfur impacts on the local community. Should the permittee choose to combust RUO as part of this process, we recommend that the permittee or EGLE analyze the additional impact combusting RUO could have on the local community over the impact of using other fuels such as natural gas.
27. EUHMAPLANT SC IV.1 requires continuous pressure drop monitoring for the proposed baghouse. We request that EGLE consider the use of a bag leak detection system (BLDS). BLDS would help verify that the fabric filters are not leaking or developing a leak. A BLDS, combined with the requirement to operate the baghouse in a satisfactory manner, would help ensure that the baghouse is operating properly, enable the permittee to react promptly to leaking bags, and further ensure compliance with the particulate matter special conditions.

⁵ See EUHMAPLANT SC II.2, SC III.4, SC V.4, and the RUO compliance monitoring plan in Appendix D.