

# Response to Comments Document

## COMPANY DETAILS

**Company:** Graphic Packaging International, LLC (GPI).

**Location:** 1810 North Pitcher Street, Kalamazoo, Michigan

**Application No.:** APP APP-2022-0207

**Permit No.:** #133-19B

**Description:**

Two air quality actions related to the company were open for comment:

- Application No. APP-2022-0207 and draft permit conditions proposing changes to existing air permit PTI No. 133-19A for a paperboard machine project. These changes did not include any emission increases. The changes include revisions to the allowed maximum dryer sizes (overall decrease), changing units of nitrogen oxides (NOx) emission limits (no increases), and changing the size requirements of the cooling tower stacks (no emissions change). The cooling tower stack releases steam from heated city water only.
- A proposed Consent Order to address emission limits and equipment installation violations related to PTI No. 133-19A. The alleged violations included exceeding emission limits in PTI No. 133-19A, failing to provide records, and installing equipment that did not meet permit requirements.

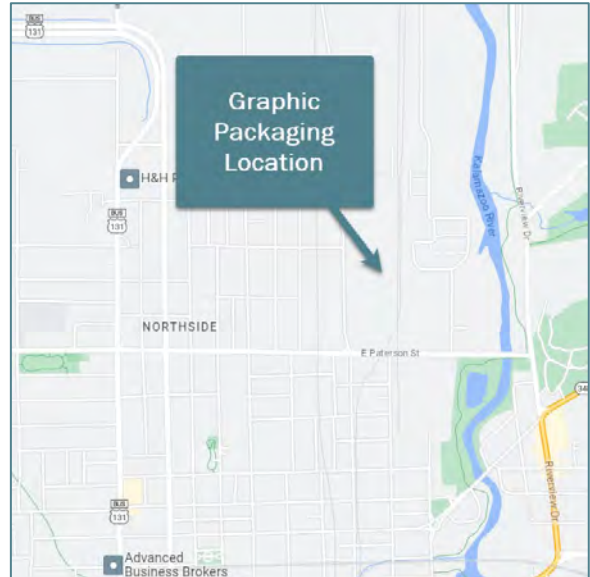


Figure 1: Location of facility

## DECISION MAKER

The decision maker for this project is Chris Ethridge, Assistant Division Director for the Air Quality Division (AQD) of the Michigan Department of Environment, Great Lakes, and Energy (EGLE or Department).

## PURPOSE

The purpose of the public comment period was to allow the public an opportunity to provide input on the two actions. The emission limit exceedances were resolved by GPI taking actions and meeting their existing emission limits rather than proposing any increase to emission limits in their permit.

Although both these actions were open for comment, the scope of how the permit for the facility may be impacted by the public participation process and public comment is limited. For

instance, the decisions on the proposed actions impact the paperboard project permit and Consent Order only. The options available for each of those decisions are to approve as proposed, approve with revisions, or to reject the proposals. None of these options would result in GPI ceasing operations.

Denial of the proposed permit would not require the facility to shut down nor would it decrease permitted emission limits. The previous permit for the project, PTI 133-19A, would continue to be active, and the resolution of the violations would be delayed. If the company was required to install the equipment and stacks as specified in their previous permit, there would be a slight increase in potential emissions from the dryers and an increase in ground-level emission concentrations from the cooling tower stacks. Additionally, GPI would not be required to continuously monitor NOx emissions from the boilers.

The purpose of this Response to Comments document is to discuss the public participation process for the two actions, detail the comments received during the comment period and the AQD's responses, and discuss the changes made, if any, to the permit and Consent Order.

## PUBLIC PARTICIPATION PROCESS

The public participation process involved providing information for public review including a [summary of the proposed permit and enforcement action](#), a [technical fact sheet](#), a proposed Consent Order, [proposed permit terms and conditions](#); a public comment period; a virtual informational meeting; a virtual public hearing; and the receipt of written and verbal public comments on staff's analysis of the application, the proposed Consent Order, and the proposed permit.

### *Timeline*

On August 31, 2023, the public comment period was opened. The public was notified in the following ways:

- Copies of the [Notice of Air Permit Public Comment and Public Hearing](#) and supporting documents were posted at [Michigan.gov/EGLEAirPublicNotice](https://Michigan.gov/EGLEAirPublicNotice) and on EGLE's Graphic Packaging webpage at [Michigan.gov/EGLEGraphicPackaging](https://Michigan.gov/EGLEGraphicPackaging).
- 149 individuals who had previously expressed interest and had provided a complete email address were emailed information about the public comment period in an interested party letter.
- A notice announcing the public comment period, the virtual public informational meeting, and the virtual public hearing was placed in The Kalamazoo Gazette. The notice contained the following:
  - Information regarding the proposed actions.
  - Where to find other information.
  - A telephone number to request additional information.
  - The date, time, and how to attend the virtual public informational meeting and public hearing.
  - The closing date of the public comment period.
  - How to submit comments.

- An [announcement](#) was sent through EGLE's subscription service about the comment period. This notice is sent to approximately 11,000 persons.

On October 5, 2023, the online public informational session and hearing was held.

- Approximately 75 people attended. A panel of representatives from the AQD made a presentation about the draft permit and Consent Order and were available to answer questions regarding the proposed project and enforcement action.
- The meeting began at 6:00 p.m. and concluded at approximately 7:00 p.m. Immediately following the informational session, a virtual public hearing was held. The hearing began at 7:00 p.m. with Jenifer Dixon as the hearings officer and Chris Ethridge as the decision maker.
- Only comments on the proposed permit and enforcement actions were received.
- Fourteen people provided verbal comments. The public hearing concluded at 8:07 p.m.

On October 10, 2023, in response to requests from the public, the public comment period was extended from October 16 to October 31 to allow the public additional time for comments. An [announcement](#) was sent through EGLE's subscription service about the extension of the comment period. This notice was sent to approximately 11,000 persons.

In total, approximately 150 sets of comments were received during the comment period. That includes those received at the virtual public hearing and via other methods.

## SUMMARY OF COMMENTS RECEIVED AND AQD'S RESPONSE

The remainder of this document is a listing of the comments received during the public comment period and the virtual public hearing and the Department's response. The first section discusses the comments received that resulted in changes to the final permit terms and conditions or the Consent Order, if any, and the basis for each change. The last section discusses the Department's response to all other significant comments not resulting in changes to the final permit.

### *Comments resulting in changes to the final Consent Order*

No changes were made to the final Consent Order as a result of comments received.

### *Comments resulting in changes to the final permit*

No changes were made to the final permit as a result of comments received.

### *Summary of other comments*

This section summarizes the comments received during the comment period that did not result in changes to the final Consent Order or permit. The section is sorted by the type of comment, or what topic the comment was related to. This includes:

- [General Questions](#)
- [Proposed Fine and Stipulated Fines in Consent Order](#)
- [Air Toxics and Risk Assessment](#)
- [Emission Limits](#)

- E. [Monitoring/Compliance Requirements](#)
- F. [Dispersion Modeling](#)
- G. [Odor Concerns](#)
- H. [Compliance and Enforcement](#)
- I. [Ethical and Environmental Justice Concerns](#)
- J. [Public Participation](#)
- K. [Support or opposition](#)
- L. [Miscellaneous](#)

## A. General Questions

### 1. Comment

How are the violations to the emission limits in the current permit (PTI No. 133-19A) being addressed?

#### **AQD Response:**

GPI's current permit requires that emissions of NO<sub>x</sub> be measured on an hourly basis. In August 2022, the exceedance of their NO<sub>x</sub> emission limit lasted approximately 37 hours and was caused by a fan malfunction. Since the fan was repaired, GPI has been able to maintain compliance with the emission limit.

In June 2022, Boiler 10 was tested for particulate matter (PM) less than 2.5 microns in diameter (PM<sub>2.5</sub>) and PM less than 10 microns in diameter (PM<sub>10</sub>), and the results did exceed the permit limits of 0.004 pounds per million British Thermal Unit (BTU). GPI re-tested the boiler on October 17-18, 2022, and the results demonstrated they were in compliance with the permit limits.

The emission limits exceedances were resolved by GPI meeting their emission limits rather than proposing any increase to emission limits in the proposed permit. Also, the company will pay a fine for violating the emission limits. The Consent Order requires a penalty for the past emission limit exceedances and additional penalties, called stipulated penalties, if future exceedances occur. The Consent Order also requires the company to conduct additional testing for PM<sub>2.5</sub>/PM<sub>10</sub> within 2 years of the approval of the Consent Order.

### 2. Comment

Comments expressed distrust in EGLE. They requested an independent review of the violations, Consent Order, enforcement action, and permit review prior to action being taken. Some comments specifically called for the United States Environmental Protection Agency (EPA) to review the proposed actions.

#### **AQD Response:**

EGLE determined that the proposed actions should undergo public notification because of anticipated public interest. The purpose of public notification and comment is to give everyone the opportunity to review and comment on the proposed Consent Order, permit review, and proposed permit conditions. This includes all interested third parties as well as the EPA. The EPA was sent a copy of the permit application on September 21, 2022. AQD staff and the EPA

discussed the draft permit in a virtual meeting on October 2, 2023. The EPA did not submit comments on the proposed actions.

### 3. Comment

A commenter requested clarification that the proposed Consent Order is separate from the Consent Order AQD No. 2022-20 issued in February 2023.

#### AQD Response:

Yes, this Consent Order is separate from the 2022-20 Consent Order issued on February 2, 2023. These current alleged violations were discovered as the 2022-20 Consent Order was being negotiated. It is not unusual for additional violations to be discovered during an active enforcement action. In this case, we decided to continue to move forward with the 2022-20 Consent Order and start a separate action to resolve the alleged violations in the current agreement.

### 4. Comment

What does it mean to correct the capacity of fuel burning equipment?

#### AQD Response:

GPI's paperboard project, permitted in 133-19A, was reviewed based upon the worst-case emissions from all project-related equipment which included several fuel-burning process dryers. The permit restricted the *maximum* capacities for those dryers to ensure the equipment would not exceed the potential emissions reviewed. The dryers installed were different sizes from what was listed in the permit. Most of them were smaller and met the maximum capacity restriction in their permit, however, one dryer was larger which was considered a permit violation.

Since the overall total capacity of the installed heaters was smaller than previously permitted, the total emissions from the heaters are decreasing. The maximum capacities of the heaters were updated in the permit to match what was installed.

### 5. Comment

What does it mean to change the allowed NOx emission limits to align with the way the emission monitoring system needs to read the concentrations?

#### AQD Response:

This is not a change of the quantity of emissions, only the units of measurement used to show what the emissions are. The revised permit requires the use of continuous emissions monitoring (CEMS) for NOx from Boilers #9, #10, and #11. That system records ongoing real-time emissions data in terms of pounds of emissions per hour. Emissions expressed in pounds per heat input (lb/MMBtu of fuel) would result in errors if using CEMS. The previous emission limit was therefore converted to an equivalent pound per hour (lb/hr) emission limit which would not cause errors when using CEMS equipment to continuously track NOx emissions.

## B. Proposed Fine and Stipulated Fines in Consent Order

### 1. Comment

The fine is not large enough and does not serve as a deterrent to GPI, especially considering the size of the company, their compliance history, and level of cooperation.

#### AQD Response

The AQD follows the EPA's Clean Air Act Stationary Source Civil Penalty Policy (EPA Penalty Policy) to calculate monetary fines. The EPA Penalty Policy sets out violation categories and corresponding fines based on:

- Importance of achieving the goals of the Clean Air Act and Michigan's Air Pollution Control Rules. The AQD included monetary fines for failing to comply with permit requirements.
- How far over the permitted limits the company's actual emissions were.
- The net worth of the company, and
- How cooperative the company was in correcting the violations.

The size of the company or its net worth is a component of the fine calculation in the EPA Penalty Policy. When the net worth of a company will overly weight the fine calculation, the AQD consistently has included the amount of the violator component by using 50% of the total fines for the specific violations, as allowed by the EPA Penalty Policy.

In this case, the fine does not include an additional factor related to the company's history of compliance because the alleged violations are not similar in nature to the violations in the 2022-20 Consent Order.

If future violations occur, then the AQD may take additional enforcement action which could include additional fines called stipulated fines.

### 2. Comment

The penalty should cover the cost of remediation and pay for any future health costs.

#### AQD Response

A Consent Order is a mechanism to bring a company into compliance with state and federal air quality rules and regulations. The violations in this Consent Order are specific to air quality violations, and the compliance program is designed to have GPI return to compliance with the state and federal air quality rules and regulations that were violated. We do not have regulatory authority for the fine to include the cost of remediation or future health effects.

In addition, we are prohibited from directing funding to projects outside the scope of the settlement and cannot require GPI to conduct a specific environmental remediation project as part of this settlement. Per MCL18.1443 of the Michigan Management and Budget Act, monetary fines paid under a Consent Order must go to the State of Michigan General Fund unless a portion of the fines are going to a supplemental environmental project called a "SEP" as part of a settlement. A SEP is a voluntary project that a company elects to do as part of a

settlement. We cannot require any certain project or direct the funds in any way. A SEP was not proposed by GPI as part of this consent order.

### **3. Comment**

Why is the EPA's Enforcement and Compliance History Online (ECHO) website reporting 11 quarters of noncompliance with the Clean Air Act?

#### **AQD Response**

The ECHO website reporting noncompliance for a quarter does not necessarily mean that a violation has taken place in that quarter. When the state issues a violation notice to a company, the company has a specific amount of time to respond with a plan to return to compliance. That plan is reviewed by the AQD and approved or sometimes requests for additional actions may take place. If there are numerous violations, or if the violation(s) are sent for escalated enforcement, this can take additional time. Violations are not taken off the EPA's ECHO site until the violations are resolved. A violation may not be considered resolved until a resulting Consent Order is terminated. That means the soonest GPI's compliance status will change on the EPA's ECHO site is February 1, 2026. It is common to see longer times of noncompliance, even when a company has already taken steps to correct the violation, or the Consent Order is terminated. Consent Orders are typically in place for at least two years.

### **4. Comment**

A commenter requested that GPI be forced to make meaningful changes to reduce their emissions rather than pay a fine.

#### **AQD Response**

The function of this Consent Order is to bring GPI back into compliance with the rules and regulations that were violated. The AQD believes the requirements of the compliance plan adequately address the alleged violations, including ensuring its emissions and operations comply with its permit and that their pollution control and monitoring equipment is correctly installed, maintained, and operated.

In these settlements, the company is required to achieve and maintain compliance with applicable state and federal rules and regulations, to take action to cease the activities contributing to or causing the alleged violations, and to pay a monetary fine to the State of Michigan General Fund.

### **5. Comment**

If a company fails to fulfill the requirements of an Administrative Consent Order, at what point does EGLE initiate Civil or Criminal Action?

#### **AQD Response**

The AQD is required to offer an Administrative Consent Order (ACO) by Sec. 5528 of Part 55 of Michigan's Natural Resources and Environmental Protection Act. Most enforcement actions are resolved with an ACO that includes an appropriate compliance program and penalty. If EGLE and the company are unable to reach an agreement to satisfactorily bring the company back

into compliance, the case may be referred to the Michigan Department of Attorney General or the EPA for further action.

## C. Air Toxics and Risk Assessment

### 1. Comment

There must be a comprehensive epidemiological study of the effects of GPI's air pollution in Kalamazoo. The process for selecting a contractor should be transparent and give credence to public input. The study must give substantial weight to the lived experience of people in the affected communities.

#### AQD Response:

The AQD uses the rules and laws within our regulatory authority to protect public health and the environment. Based on our evaluation of those for the proposed project, it is beyond the scope of our authority to require an epidemiological study.

Our partner agency, the Michigan Department of Health and Human Services (DHHS), is conducting analyses of epidemiology surveillance data to describe patterns in health outcomes in the area near GPI and the Kalamazoo Water Reclamation Plant (KWRP). This work is ongoing and subject matter experts are available to speak with residents about this process. DHHS contact: Jordan Bailey at [BaileyJ17@Michigan.gov](mailto:BaileyJ17@Michigan.gov) or 517-284-8997.

### 2. Comment

A commenter was concerned with the cumulative impacts of mixtures of chemicals rather than considering each pollutant separately.

#### AQD Response:

The AQD's air toxics rules provide a framework for reviewing impacts of some chemical mixtures. It is correct that most pollutants in a given review are evaluated separately. In this case, pollutants were looked at individually and some were looked at in combination. Combined impacts from inhalation exposure to two groups of pollutants were also considered. A chemical mixture of select polyaromatic hydrocarbons was reviewed as well as a second group containing two different forms of ammonia. Within both groups, the chemicals are known to be structurally similar and cause similar adverse effects.

Although we do not have the ability to do cumulative impact analysis incorporating all the ways the public may be exposed to complex chemical mixtures, the AQD does look at cumulative risk to the extent possible with our current processes and available methods.

### 3. Comment

Are studies conducted to determine what is safe? If there are studies, how recent are they and is this something EGLE can provide?

#### AQD Response:



Research studies on a given pollutant or groups of pollutants are used to develop health-based standards and screening levels. These standards and screening levels are set to protect the general public, including sensitive groups identified in research studies. Information about both the [national standards](#) and the Michigan-specific [screening levels](#) is available online. Screening levels are opened for public comment when they are developed or changed. The age of the studies varies and is dependent on when a given standard, or screening level was developed and whether a study is considered the best available information.

For the health-based national standards, there are several documents available on [the United States Environmental Protection Agency's website](#). For the Michigan-specific, health-based screening levels, there are several documents available online on the [Air Quality Division's website](#).

#### **4. Comment**

Multiple comments were received from residents with health issues they believe are caused by emissions from GPI. The ailments include asthma, kidney illnesses, birth defects, headaches, sleep apnea, dizziness, vertigo, general illness, coughing, burning/watery/dry eyes, eczema, rheumatoid arthritis, cancer, sinus congestion, chronic allergies, sinus infections, and respiratory inflammation and irritation. They also had concerns about high blood pressure, heart attacks, strokes, premature death, low birth weights, decreased lung function, and damage to the central nervous system as a potential result of being exposed to. These sensitive populations include Commenters also blame hospital visits and deaths of residents and pets on the emissions from GPI. They are concerned about sensitive populations being exposed to pollutants. These sensitive populations include senior citizens and children at local schools, hospitals, churches, businesses, and homes. A commenter expressed concerns about the safety of gardening in the area. Concerns were received about nearby schools having to stay inside during recess due to poor air quality. A commenter was concerned that the perceived impacts by the residents were not being considered and the Department relies too much on other data.

#### **AQD Response:**

Many of the symptoms described (e.g., nausea, headache) are consistent with exposure to odorous chemicals and can occur even with very low levels of hydrogen sulfide (H<sub>2</sub>S) in the air. Symptoms of exposure to H<sub>2</sub>S can become more pronounced as the concentration of H<sub>2</sub>S in the air and length of exposure increases. The DHHS Health Consultation did conclude that there is an increased risk for H<sub>2</sub>S-induced nasal irritation with long term exposure to H<sub>2</sub>S levels measured in the community.

The emissions from the proposed project and enforcement actions are not expected to be sources of H<sub>2</sub>S. The AQD is aware that there are odor and air quality concerns in the area and continues to collaborate with multiple groups to address these community-scale air quality concerns.

While some of the pollutants emitted from the proposed project can cause health problems when exposures are high enough for long enough, the proposed emissions were evaluated against health-based National Ambient Air Quality Standards (NAAQS) and the state's screening levels so that they would not be emitted at a level that would be a health concern.

## 5. Comment

A commenter was concerned about the color and the look of the plumes coming from the facility.

### AQD Response

All facilities are required to meet Michigan Air Pollution Control Rule 301 as specified in General Condition 11 in GPI's Permit to Install. This rule addresses the visual emissions of smoke and prohibits it from exceeding certain opacities. Opacity is the amount of light blocked by smoke which makes the emissions visible. The more light that can pass through the smoke, the lower the opacity and less visible smoke. However, these requirements apply to smoke and do not apply to steam or water vapor. Paperboard plants like GPI tend to have more steam and water vapor than smoke. Water vapor plumes form more rapidly when the air is cool and may be more visible at night or in the winter months when temperatures are colder. It can be difficult to tell the difference between water vapor and white smoke. Air quality inspectors receive special training for this purpose. The inspector determines if the visible emissions are meeting the opacity limits.

## D. Emission Limits

### 1. Comment

From where do the permit limitations derive?

#### AQD Response:

Once a company decides they want to do a project that impacts air emissions, they submit an application to EGLE that includes everything they want to do, how they want to do it, what equipment they want to install and operate, and what their emissions will be. They also include their evaluation about which air quality rules and regulations apply and how they intend to meet them. Air quality permit engineers use the technical details of the application to evaluate what the request is, which rules apply and if the request will meet the rules and regulations including health-based standards like the NAAQS and Michigan's air toxic screening levels. The application is not taken at face value. The permit engineer must look at every detail provided and ensure the draft permit conditions are written to make sure that the project will be installed and operated as proposed.

### 2. Comment

Who creates the permit restrictions?

#### AQD Response:

EGLE staff writes the draft permit conditions based on a thorough evaluation of the air permit application and all applicable rules and regulations keeping in mind how the company will show they are complying with them. Every limitation or restriction in a permit must also include a way to verify the limitation or restriction is being met.

### 3. Comment

Several commenters were concerned that the proposed permit would increase the number or quantity of pollutants allowed to be emitted from the facility. We also received comments asking why the NO<sub>x</sub> emission limits were changed.

#### AQD Response:

The changes to the permit do not increase the allowable emissions of any pollutant from the facility. There is not a change of the quantity of NO<sub>x</sub> emissions, only the units of measurement used to show what the emissions are. The revised permit requires the use of CEMS for NO<sub>x</sub> from Boilers #9, #10, and #11. That system records ongoing real-time emissions data. Emissions expressed in pounds per heat input (lb/MMBtu of fuel) would result in errors if using CEMS. The emission limit was converted to an equivalent lb/hr emission limit to allow the facility the ability to use CEMS equipment to continuously track NO<sub>x</sub> emissions. This is not a change of the quantity of emissions, only the units of measurement. Additionally, using a CEMS is preferred over stack testing because the information is continuous and provides more thorough, timely, and complete information about the emissions.

To clarify, if the current permitting action was denied, the existing permit for the project would still be active. The permitted emission limits from the facility would be the same. The primary difference would be that the continuous monitoring of NO<sub>x</sub> emissions for the boilers would no longer be required. The NO<sub>x</sub> emissions would continue to be expressed in lb/MMBtu rather than lb/hr. The emissions from the heaters, if installed as originally permitted, would be slightly higher. Requiring the facility to rebuild their stack to the previously specified parameters would slightly increase pollutant concentrations at ground level.

### 4. Comment

A commenter was concerned about the emission calculations assuming 99.5% of chemical additives were retained in the water. The concern was about the additives containing toxics and volatile organic compounds using the same assumption. This value was based on an original analysis which no longer was on file due to state record retention policies. The commenter requested the AQD use a “mass balance” approach instead. The commenter requested that the water and other soluble chemicals retained in the product were all assumed to be emitted during the drying process. The commenter stated that this value should be 45% to 55% based on the dryness of the product as specified by the U.S. Department of Energy ITP Forest Products: Energy and Environmental Profile of the U.S. Pulp and Paper Industry documents.

#### AQD Response:

Information related to the original report was requested from GPI who still had the record. The original analysis was based upon a “mass balance” approach using the same method recommended by the commenter. It also demonstrated that 0.5% of the total water and additives used remained with the product when it was dried.

The evaluation assumed all of the water and other soluble chemicals remaining in the material were emitted. This is conservative because some of the chemicals would remain on the product. However, the 45% to 55% dryness of the product suggested by the commenter does not reflect

the percentage of the original water and additives used. Only a small portion of the water used is absorbed by the product. Most of the water and additives are collected prior to any moisture being removed from the product (at 0% dryness). Therefore, the moisture retained in the product when entering the dryer reflects only 0.5% of the total water and other soluble chemicals used.

Although the emission calculation footnotes referred to the additives as “VOC”, not all of the additive chemicals fall under that category. However, it is still valid to use the same water-based mass balance calculation method since they are water soluble.

## 5. Comment

Commenters requested the emission limits in the new permit be lowered from what was previously allowed. A question was received inquiring if emission limits in an already issued permit could be lowered.

### AQD Response:

The Department must review the project as submitted in GPI’s application and base the permitting decision on if it meets all the rules and regulations in place to protect public health and the environment. We do not have the legal authority to require emissions to be reduced from what is proposed unless the project is unable to meet the current rules and regulations that apply.

## 6. Comment

A commenter stated that they did not think emission controls would “suck up” every part per million or billion in the air. Another commenter asked if controls could be added to eliminate all air emissions or if emissions could be reduced further.

### AQD Response

Air emissions control technology that can both capture and control 100% of all pollutants does not exist. GPI is not utilizing all possible emission control technologies, so reductions in emissions may be possible. However, the emission rates GPI is proposing meet all applicable air quality rules, regulations, and standards. There is no regulatory requirement under which the AQD may require them to install any additional controls.

Due to air emission control technology limitations, reaching zero emissions is not possible while the plant is in operation.

## 7. Comment

A commenter was concerned that NO<sub>x</sub> emissions were increasing stating that it is a potent greenhouse gas equivalent to 273 times the warming potential of carbon dioxide over a century timescale. A concern was received about climate change impacts from greenhouse gases in general.

**AQD Response:**

It is believed that the commenter may have confused nitrous oxide (a potent greenhouse gas) with nitrogen oxides. Although the chemical compositions and names are similar, the chemicals are very different. The table in the technical fact sheet originally showed that the project had increased the allowed nitrogen oxides from the facility, but that was in error. The project emissions meet all applicable rules and regulations including those related to greenhouse gases.

**E. Monitoring/Compliance Requirements****1. Comment**

A commenter was concerned the non-methane organic compounds (NMOC) emission rates of EUBOILER#9 would only be tested once every 60 months and the records for that testing need to only be maintained for 60 months.

**AQD Response**

Boiler #9 is a boiler which existed and was permitted prior to the paperboard project. It was previously permitted to burn multiple fuels. More recently it was restricted to burning only natural gas. This greatly decreased the allowed emissions from the unit. The current permitting action also added continuous emissions monitoring for NOx. There were only new, more stringent restrictions being added and no relaxation of permit conditions for Boiler #9 so it was not subject to “new source review” as specified by the air quality rules and regulations. This means that the other existing permit conditions, including the NMOC testing requirements, did not change. This exception in the rules and regulations prevents companies from being discouraged to take emission reductions due to permitting requirements. GPI could have implemented the changes to Boiler #9 without including it in the current permitting action.

Stack testing every 60 months is the standard method for demonstrating compliance with permitted emission limits across all industry types. As specified in the permit, the test report is required to be submitted to the AQD Technical Programs Unit and district inspector within 60 days of the test. The Department maintains a record of this testing. All facilities across all industry types are required to maintain their own records for 5 years.

**F. Dispersion Modeling****1. Comment**

Concerns were received that the emission limits may not be stringent enough to protect sensitive populations even if they meet the NAAQS.

**AQD Response:**

The AQD completed a review of the proposed emissions in comparison to the NAAQS. There are two types of federal NAAQS:

- Primary NAAQS - The primary standards protect public health and the environment. They are designed to protect the health of the general public, including sensitive groups like children, elderly, and those with chronic respiratory ailments.
- Secondary NAAQS - The secondary standards are designed to provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Review of the application showed the emissions from GPI will meet both the primary and secondary NAAQS. A NAAQS demonstration is done via computerized air dispersion modeling which takes into account the emissions from the proposed facility, nearby sources and local background levels in the surrounding community. For emitted pollutants that do not have NAAQS, Michigan health-based screening levels were used to evaluate the proposed emissions from the project. All were found to be meeting their respective screening levels.

These standards and screening levels provide the basis for determining what level of emissions are acceptable for permitting purposes.

## **2. Comment**

A commenter had concerns about how pollutants may be trapped in the area due to Kalamazoo being located in a valley. They also expressed concerns about how “what comes up must go down.”

## **AQD Response**

The dispersion modeling performed takes into account the local terrain, as well as other information, when pollutant impacts are determined. Although there are valley features in and around Kalamazoo, those features do not have the ability to trap pollutants in the area in this specific scenario. As the emissions are released into the atmosphere, they are dispersed upwards and mix with the surrounding air, dissipating and becoming diluted. It is more likely to see pollutants become “trapped” by weather related issues called “inversions.” These atmospheric phenomena often occur in colder weather months where warmer air is above cooler air in the atmosphere, trapping the cooler air below. This reduces its ability to disperse. Inversions typically occur in the morning hours and when conditions have light or no wind. When the day carries on and winds start to pick up, inversions dissipate as surface winds start to shift around the atmosphere and allow for air particles, or emissions, to disperse.

## **3. Comment**

Commenters requested 24-hour monitors to be installed. Some commenters requested them for all pollutants GPI emits while others specifically requested NO<sub>x</sub>, formaldehyde, benzene, lead, and toluene. Some stated that this was because computer modeling is not sufficient. Commenters requested the 24-hour data be available to the public in real time and provide data viable for use in future regulatory or enforcement actions. The commenters stated that the monitors should be required to demonstrate compliance with the EPA and EGLE regulations and that compliance should not be based on GPI's “self-tests.”

## AQD Response

EGLE does not have the authority to require GPI to install additional air monitors in the area. Currently, monitors and sampling methods do not exist for every pollutant. Current monitoring technology is pollutant specific. Off-site community monitors cannot be used for demonstrating compliance for a specific company because the monitors would pick up background emissions from several possible industrial and mobile sources. Because of these limitations, the best ways to ensure compliance is through CEMS, emissions testing, the use of emission controls, recordkeeping, and emissions calculations.

Computer modeling was used by the AQD in the review of the application to determine that all applicable state and federal air quality standards will be met. The modeling considers worst-case emissions as if all equipment is operating at its maximum emission rates as allowed in their permit.

GPI is required to hire a reputable third-party testing company to perform all permit-required testing. As specified in the permit conditions, the test protocol (plan) must be submitted to EGLE for review prior to testing. EGLE staff also attend testing at facilities. The permit requires GPI to keep emissions and operational records to show that they are meeting the emission limits in their permit. If they are found to be exceeding their allowed emission rates or operating parameters in their permit, they will be cited as being in violation.

## G. Odor Concerns

### 1. Comment

Several commenters expressed concerns about odors from the facility. These comments included personal experiences of extreme unpleasant odors at work, school, residences, and public events. A commenter stated the cumulative odor is worse due to the water treatment plant. Commenters were concerned about the quality of life for those in the area. Commenters requested GPI be held accountable for this. Several commenters noted that odors are highest during non-business hours.

### AQD Response

One of the primary sources of odors in the area is H<sub>2</sub>S gas. Although there are no H<sub>2</sub>S emissions expected from this project, we understand the community's concerns about odors and their impact on quality of life.

To address public concerns, the previous permit for the project contained a requirement for GPI to implement a [Nuisance Minimization Plan for Odors](#) (FGPROJECT2019 SCIII.1). This condition is also included in the revised permit for the project.

We continue to respond and investigate odor complaints. Our response includes a thorough odor investigation. If warranted, a violation notice will be issued. We encourage residents to contact us anytime they are experiencing odors that are impacting them. Residents are encouraged to contact us as soon as possible so we can provide a timely investigation. Residents can contact us by:

- Contacting the inspector directly during regular business hours: Mike Cox at 616-240-3607 or [CoxM9@Michigan.gov](mailto:CoxM9@Michigan.gov).
- Calling the Pollution Emergency Alerting System after regular business hours and on weekends: 1-800-292-4706.
- Submitting the complaint using the [online form](#).

## 2. Comment

A commenter asked about the number of odor complaints received by the department.

### AQD Response

As of November 17, 2023, there have been 400 complaints submitted to the AQD citing GPI as the source since 2010. 386 of those comments were related to odors. 288 of those odor complaints were submitted since mid-February 2022 which is when the new paper machine began operation. The public awareness of GPI as a potential source of odors and increased knowledge on how to submit complaints have contributed to this increase in the number of complaints.

## H. Compliance and Enforcement

### 1. Comment

Commenters stated the permit should be denied based upon the company's past record of compliance. Many comments received requested the facility be required to shut down. Several stated that any permit violation is justification for shutdown or revoking their existing permit.

### AQD Response

The AQD does not have the legal authority to deny issuance of a permit if the applicant has demonstrated they can comply with all of the applicable regulatory requirements they are subject to. The actions being proposed only pertain to the decisions on the Consent Order and draft permit. No decision on these actions would result in the facility being shut down or could result in the project not being permitted.

Denial of the proposed permit would not require the facility to shut down. The previous permit for the project (PTI 133-19A) would continue to be active, and the resolution of the violations would be delayed. If the company was required to install the equipment and stacks as specified in their previous permit, there would be a slight increase in potential emissions from the dryers and an increase in ground-level emission concentrations from the cooling tower stacks. There would also be no requirements to continuously monitor NOx emissions from the boilers which was added in the proposed permit.

### 2. Comment

A commenter was concerned about the amount of oversight and requests robust enforcement of the permit's conditions. A commenter recommended that GPI be placed on a program of much more frequent monitoring and inspections due to their compliance history. A commenter was concerned that GPI was getting special treatment and rules are being bent for them. A



commenter was concerned that GPI was being rewarded with greater leniency after exceeding their current permit limits.

### **AQD Response**

In our role of regulating industrial sources of air pollutants, we apply the air quality rules and regulations and our compliance and enforcement processes as they are intended, no matter the facility. GPI does not get nor has ever gotten special treatment or leniency from the laws that apply to their processes.

We use a variety of methods to determine compliance at a facility throughout the year. GPI is considered a “major” source of air emissions because of the amount of emissions GPI is permitted to emit. Major sources are required to be inspected at least once every two years. However, district staff can and often do inspect facilities more frequently than required, especially if the facility has prolonged unresolved violations or complaints. In addition to on-site inspections and complaint investigations, district staff may request and review recordkeeping documents from the facility at any time. GPI is also required to submit reports to the AQD multiple times throughout the year, which district staff review for compliance. GPI is required to conduct stack testing and maintain their CEMS to further show compliance with emission limits. AQD staff attends stack tests and also review the final results for compliance.

### **3. Comment**

A commenter stated that the district inspector did not get out of their car when responding to an odor complaint. A commenter stated the speed of responses to complaints and content of the complaint report are not adequate.

### **AQD Response**

Inspectors are specially trained to detect and categorize odors. There is a method and grading scale used to determine when a violation has occurred. This includes looking at the frequency, and intensity and duration of the odor. An odor investigation can include a variety of activities, and typically includes a combination of driving, walking, and documenting their observations. Odors can change in intensity and location very quickly. This can happen in the span of time it may take to get to the location of the complaint. Inspectors will first try to quickly find where the odors are and then spend the majority of their time analyzing odors in those locations where odors are most intense.

District staff take every complaint received very seriously. All complaints are logged into a database, along with follow-up activities and complaint investigations. While district staff make every effort to investigate as many of these complaints as possible, there are circumstances when we are unable to do so. All complaints and investigation reports are available to the public via a Freedom of Information Act request.

### **4. Comment**

Commenters questioned the concept of allowing the modification of a permit to incorporate previous violations.

## AQD Response

When a company has a violation that can be corrected by modifying their existing permit, it is done only after a thorough evaluation of the air quality rules and regulations that apply. In order for a permit change to be a possible solution to the violation, the change must be able to meet all applicable standards in place to protect public health and the environment. These types of changes are evaluated with the same scrutiny as any other permit modification. In this case, modifications to the permit to return GPI to compliance provided for the same or better protections than in their current permit and were allowable under the rules.

## 5. Comment

Commenters stated the company should have to tear down the “smokestacks” (existing cooling tower stacks) and rebuild them to meet the original permit specifications. A commenter stated they should have to shut down until the stacks can meet their permit. A commenter stated that they did not want more emissions to come out “all at once.”

## AQD Response

Although generally referred to as “smokestacks” in the comments, the stacks being referenced are cooling tower stacks. The cooling towers use treated city water to cool some of GPI’s process which heats the water. When this happens, the water vapor is released through the cooling tower stacks. Since city water contains some impurities, these particles are released as emissions along with the water vapor from the stack. The quantity of the emissions being released are not impacted by the size of the stack.

Stack sizes are specified in permits because they can impact the concentrations of emissions at ground level in the breathing zone. When a stack is higher or the diameter is smaller, the emissions typically become more diluted by the time they reach the ground where people are. Since higher stacks and smaller diameters have positive impacts by reducing ground level concentrations, permits include minimum height and maximum stack diameters. If a company does not abide by either their minimum height or maximum diameter, it is a violation as was the case with GPI.

To ensure the overall project, including the change in the stacks, would meet the air quality rules and regulations, we reevaluated it as part of the permit review. This included using a computer model to show any changes in emission impacts.

Both the old stack and new stack were looked at individually to provide a comparison and perspective on how the stack changes impacted the overall modeling results. The emissions from the cooling towers evaporating water are very small compared to the other emission sources at the facility included in the original model. The particulate emissions from the cooling tower stacks had very little impact on the overall concentrations. Based on the model, the predicted worst-case concentrations from the cooling tower stacks slightly *decreased* as a result of the changes to them. See Table 1.

**Table 1: Particulate concentration**

Particulate concentration micrograms per cubic meter			
	Maximum Annual Average	1 <sup>st</sup> highest 24-hr average	8 <sup>th</sup> highest 24-hr average
Stack in Original Permit	0.031	0.172	0.125
Stack in New Permit	0.031	0.164	0.122

## I. Ethical and Environmental Justice Concerns

### 1. Comment

Comments were received concerning the location of the facility. This includes:

- Concerns about it being in a historically red-lined area.
- Concerns that the facility is in an environmental justice area.
- Concerns that the facility is too close to public schools with disenfranchised students of low income.
- Concern that a factory of that size should not be located so close to residents.
- References to a 2003 World Health Organization publication stating no school should be within two miles of a facility that releases dangerous air pollution. There are eight Kalamazoo County schools within two miles of GPI.

### AQD Response

Zoning and siting decisions are made between a company and the local municipality(ies). Companies commonly obtain local permits to build and select properties that have been properly zoned, prior to submitting an air permit application. Local decisions, including zoning, determine where businesses and schools may locate. We cannot include local zoning decisions as part of our air quality air permit decision. The State of Michigan Attorney General issued a formal opinion (Opinion No. 6992) on this matter in 1998.

However, the permit application review includes air dispersion modeling to demonstrate the facility will not exceed health-based standards in all areas surrounding the facility, including recreational, educational, and residential areas. In applying these standards consistently and fairly in the permit process, the state is protective of all Michigan residents.

### 2. Comment

Commenters stated that the process would have taken less time or would have been handled differently if it was located in an area with different economic or race demographics. A commenter asked how long the violations have been taking place. A commenter stated that a year had passed since the violation notice was issued prior to the beginning of the public comment period resolving the actions.

## AQD Response

Enforcement actions like this one take time and that can be a source of frustration for residents. We take violations seriously and strive to ensure companies return to compliance as soon as possible. We also highly value the time taken as part of the process that includes receiving input from the public.

We recognize that the community around GPI has environmental justice concerns, and we work to apply the tools we have to ensure meaningful public engagement in our processes. We follow our [nondiscrimination](#) and other policies to ensure our actions and decisions are equitable and that we apply air quality rules and regulations to all as intended.

In this case, the AQD decided it would benefit the community more if the enforcement action went out for public comment at the same time as the draft permit. The Consent Order depends on a permit issuance to address some of the violations. The full reevaluation of the project for permitting purposes took time. The primary goal was to get an enforceable agreement to install and require the operation of the NOx CEMS. The delay of the process better served the community interests rather than proceeding without the newly required monitoring.

## 3. Comment

Several comments received were concerned about racism, social justice, and environmental justice. Multiple commenters cited EJSCREEN saying that GPI is located in an environmental justice area. A commenter was concerned that the documents were not translated into other languages.

## AQD Response

The AQD recognizes and acknowledges that the location of GPI is in an environmental justice area as identified by some members of the community and is of special interest to the public. This is why the paperboard project was originally subject to public notification and comment. The drafting of the Consent Order and permit were based on the rules and regulations which are in place to protect all members of the public.

During permit application review, we followed all EGLE policies and procedures regarding public participation including a review for Limited English Proficiency. We used EPA's EJSCREEN to evaluate a 1-mile radius around the facility to determine if translation services were needed. Based on the information from this evaluation, and in consultation with EGLE's [Limited English Proficiency Plan](#), it was determined translation services were not required. We are happy to provide information related to these actions, or any other, in an alternative format including another language. Information on how to make this request was included in the public notice and is also posted on our webpages.

EJSCREEN also helps inform the Department about community stressors, and we use this information to better understand the community. We strive to protect the health and welfare of all citizens of the State of Michigan. State and federal air quality standards have been established to be protective for all segments of society, including sensitive groups when known.

#### 4. Comment

Commenters requested that EGLE staff follow their consciences when making decisions. Commenters stated that EGLE staff were hiding behind the rules and regulations and stated staff didn't want to do more. A commenter stated that EGLE was not meeting their stated mission as it pertains to environmental justice and that the current laws do not provide equity due to systemic racism.

##### **AQD Response:**

We are empathetic to the concerns of local residents and understand how frustrating the limitations of the Department can be. However, we cannot make decisions based upon personal opinions or feelings. The laws that give us the authority to make decisions specify what the basis of those decisions must be. The decisions must be based upon the current federal and state rules and regulations in place to protect public health. Each decision we make must be supported by these laws for the decision to be legally upheld. Making decisions without legal authority would negatively impact our future ability to negotiate and make decisions that are protective of Michigan's residents.

#### J. Public Participation

##### 1. Comment

Several commenters stated they were unsatisfied with the level of detail and technical information presented in the public comment documents and the informational session as well as how it was presented.

##### **AQD Response**

We understand all communities, and residents of those communities, have their own histories and levels of knowledge and understanding. We strive to provide information in a variety of ways with differing levels of detail. These include:

- The [Notice of Hearing](#): This is posted in a local paper as well as online. It gives a very high-level overview of the proposed project as well as where to find other information and how to make a comment.
- The Proposed Project Summary (in this case [Air Permit and Enforcement Summary](#)): This gives more detail on the proposed project and comment period, the rules that apply, and the evaluation done to ensure those rules are met. It often gives details about topics like what air quality is like in the area, air modeling overview, whether translation was done, how to get more detailed information, how to contact us, how to attend the meeting, and how to make comments.
- The [Technical Fact Sheet](#): This is a deep dive into the permit engineers evaluation of the permit application. This includes technical details about the specific rules and regulations that apply to the proposed project and why.
- The [Enforcement Summary Report](#): This gives more details about the enforcement case, including a timeline of events, violations, responses, and the draft Consent Order.

- The Informational Session: This is a meeting where staff will present information about a proposed project or action. There is also a question-and-answer session to allow residents to get clarification on specific items of interest. Some answers may not be presented in the way preferred by each unique participant.
- Contact us: We are always open to one-on-one conversations and questions about our process. This information can be presented at any level of detail and technical information as requested. If you are not sure who to contact, you may call the Environmental Assistance Center at [EGLE-Assist@Michigan.gov](mailto:EGLE-Assist@Michigan.gov) or 1-800-662-9278.

## 2. Comment

Several commenters expressed concerns about the revisions to the technical fact sheet.

### AQD Response

We understand that updating the tables in the Technical Fact Sheet caused frustration and confusion for people. It was not our intention to do that, but to provide correct information and additional clarification. We apologize for any additional frustration.

Original Table 1 (updated Table 2) was meant to look at the emissions as if the paperboard project had never been permitted. Some of the information that was originally included was incorrect. This table was updated to correct the emissions information. This did not change any of the permit application review. Updated Table 1 was added to show that there were no changes in allowed emissions being requested or included in the revised permit. The differences were only changes in the units to show how the company would be able to use the updated continuous emissions monitor. This did not change any of the permit application review.

## 3. Comment

Comments were received expressing concerns about the informational session and hearing being virtual since not everyone has access to the internet.

### AQD Response

We understand that not everyone has access to the internet. All of our online meetings also allow for community members to call in using a telephone so that we can provide accessibility to more people. We also record, post, and share our online public meetings so any person who cannot attend and would like to learn more can view them at a later date. A recording of this informational session and public hearing are [available to view](#).

Additionally, comments can be submitted by voicemail, US mail, or email at any time during the public comment period. Any questions can also be discussed by phone by reaching out to our staff or through the Environmental Assistance Center at 1-800-662-9278.

## 4. Comment

A comment was received appreciating the inclusion of a public comment period and transparency of the process by releasing public notice documents.

## **AQD Response**

We strive to provide helpful information and transparency through the process and appreciates when it is noted by members of the public.

### **K. Support or opposition**

#### **1. Comment**

A comment was received in support of the enforcement and corrective action for holding GPI accountable. A different commenter appreciated the addition of the NOx continuous emission monitoring requirements.

#### **AQD Response**

We note your support of the proposed items as part of the current actions.

#### **2. Comment**

A commenter stated that they do not trust that GPI will follow through on promises to reduce emissions.

#### **AQD Response**

The emission decreases associated with the paperboard project are federally enforceable in their permit. GPI is required to meet their revised permit or face legal consequences. The AQD district will also verify compliance with all permit requirements during subsequent inspections.

Any requirements to reduce emissions outside of the paperboard project are outside the scope of the current enforcement and permitting actions.

#### **3. Comment**

EGLE should deny the proposed permit until non-GPI stakeholders have reached a consensus about appropriate measurement and testing and accessible, transparent, real-time data reporting.

#### **AQD Response**

We do not have the authority to require a delay in the permitting and enforcement actions until non-GPI stakeholders have come to an agreement on emission monitoring requirements. All outside parties were welcome to propose emission measurement, testing, and reporting requirements for inclusion in the proposed permit as part of their comments on the proposed actions. All comments were considered by the decision maker prior to decisions being made.

#### **4. Comment**

A comment was received appreciating the NOx, PM10, and PM2.5 emission limits in the permit and the newly required continuous emissions monitoring for NOx.

#### **AQD Response:**

We note your support of the inclusion of emission limits and the NOx CEMs.

## L. Miscellaneous

### 1. Comment

Several Comments were received outside of the scope and authority of the current decision. These comments included topics like light pollution, traffic, use of tax dollars, and property values.

#### AQD Response

The permit review process is a technical and legal review of the proposed air pollution source and the decision to issue a permit is based solely on compliance with all applicable state and federal air quality related rules and regulations. The AQD can only base a permit decision on whether a proposal meets the applicable air quality requirements. Other environmental media and local issues such as noise, traffic, and zoning are handled by other agencies or departments. When evaluating an air permit application and/or an enforcement action and making its decision, the AQD cannot consider potential jobs, tax base, property values, community projects, or business profits.

The AQD does not participate in proposing locations, closures, or relocations of papermills. The proposed actions are not related to a waste site or cleanup site.

### 2. Comment

A comment called for EGLE to advocate for changes to our state's outdated regulatory framework, which does not adequately address environmental injustices created and perpetuated by industrial facilities. A commenter requested the State of Michigan enact and enforce effective pollution related legislation.

#### AQD Response

The creation of pollution related legislation is outside the scope of the current proposed actions. EGLE will continue to actively engage with law makers proposing environmental regulations outside of the current enforcement and permitting actions.

### 3. Comment

Several comments were received concerning past or possible future actions of other entities like the city of Kalamazoo, Graphic Packaging, or DHHS.

#### AQD Response

EGLE does not have the authority over the actions of these third parties.

### 4. Comment

A commenter was concerned that the new permit could not be revoked without an additional hearing.



## AQD Response

The paperboard project is already permitted under PTI 133-19A. The proposed revisions to that permit result in positive impacts to the emission concentrations as well as requiring new continuous emissions monitoring. If the revised permit was not approved, PTI 133-19A would continue to be active.

## 5. Comment

Commenters were concerned about the current H<sub>2</sub>S concentrations in the area. They also questioned why the associated scrubber was not yet installed or how efficient it would be. They had concerns about the district not having equipment to measure H<sub>2</sub>S levels when they investigate a complaint.

## AQD Response

Although EGLE understands that H<sub>2</sub>S concentrations are a concern to citizens in the area, the issue is being addressed through separate actions from this Consent Order and permit. This includes the installation of a scrubber which is required by ACO No. 2022-20 to be installed by the end of 2023. The proposed actions have no impact on the levels of H<sub>2</sub>S in the area.

The area around GPI has a robust H<sub>2</sub>S monitoring system operated by the KWRP. H<sub>2</sub>S concentrations should be monitored and averaged over time to determine if they pose a health threat. That is why instantaneous concentrations reported by the monitoring system may not indicate the exceedance of a health-based screening level which has a longer averaging period.

District inspectors frequently use handheld monitors while conducting odor investigations around the area of GPI. The H<sub>2</sub>S levels that are observed with these monitors during the investigations are noted within the associated investigation report.

## 6. Comment

A commenter expressed that GPI should be emitting less than the current limits. Due to GPI's record of citations for faulty records, it must utilize actual rather than calculated emissions data.

## AQD Response

The emission limits listed in the permit are calculated based upon all equipment at the facility operating 24 hours a day 365 days a year at their maximum capacity unless otherwise restricted by permit conditions. For example, equipment may have restricted throughputs or fuel limits in the permit. These worst-case potential emissions were found to meet all the rules and regulations in-place to protect public health. However, equipment is rarely operated at their maximum capacity every hour of the year so the actual emissions from GPI should be *less* than their current permit limits and less than calculated emissions data. GPI is required to report their actual emissions on an annual basis. This information is publicly available. We base the permit review on the more conservative calculated emissions to be more protective of public health.

**PREPARED BY:** AMBROSIA BROWN PE  
517-730-1158  
[BrownA39@Michigan.gov](mailto:BrownA39@Michigan.gov)