

PROPOSED PROJECT SUMMARY

WARREN WASTE WATER TREATMENT PLANT – WARREN, MACOMB COUNTY, MICHIGAN

WARREN WASTE WATER TREATMENT PLANT

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), is asking for comments from the public on a proposed Permit to Install (PTI) for the Warren Waste Water Treatment Plant (Warren WWTP). The AQD will accept comments on the proposed PTI until the close of the comment period on August 20, 2024. A virtual public hearing has been scheduled on August 8, 2024. We will review all comments before we make a final decision on the proposed permit.

WHAT IS WARREN WWTP PROPOSING TO DO?

Warren WWTP operates an existing municipal wastewater treatment plant at 32360 Warkop Avenue, Warren (Figure 1). Warren WWTP is proposing to install and operate a new sewage sludge disposal process that would replace the existing sewage sludge incinerator.

The proposed process would be installed in a new building with new building heaters and an emergency generator. The proposed process would include a new sewage sludge dewatering system and two identical sets of sludge disposal equipment: a BioCon biosolids dryer and an energy recovery system furnace from Veolia Water Technology. Each biosolids dryer would have a natural gas heater to provide heat during startup. Once the system is running, heat for drying the sludge would come from the furnace. Each proposed furnace would have the following air pollution control equipment:

- A cyclone
- A wet scrubber
- A wet electrostatic precipitator
- A selective catalytic reduction system
- A mercury control device

WHAT IS A PTI AND WHY IS ONE NEEDED?

A PTI, commonly known as an air use permit, is required for projects that involve installing, constructing, reconstructing, relocating, or modifying



Figure 1: Warren WWTP Location

most processes or process equipment that emit, or may emit, air contaminants, such as the new sewage sludge disposal process Warren WWTP is proposing to install.

The AQD has reviewed the application and written proposed permit conditions that include requirements to make sure the proposed project complies with all applicable air rules and regulations.

WHY IS WARREN WWTP GOING OUT TO PUBLIC COMMENT?

Warren WWTP is proposing to install a new sewage sludge disposal process on the north bank of the

Red Run Drain between Thirteen Mile Road and Fourteen Mile Road, east of Van Dyke Avenue and west of Chicago Road. This type of process often generates public interest, so the AQD has determined that the public should have the opportunity to comment on the proposed permit conditions.

WHAT IS THE CURRENT AIR QUALITY IN THE AREA?

The United States Environmental Protection Agency (USEPA) has developed health-protective standards for specific air pollutants. These standards are called the National Ambient Air Quality Standards (NAAQS).

There are NAAQS for [some pollutants](#), including sulfur dioxide, nitrogen dioxide (NO₂), carbon monoxide, particulate matter equal to or less than 10 microns in diameter, particulate matter equal to or less than 2.5 microns in diameter (PM_{2.5}), ozone and lead.

Poor air quality from high levels of pollution can cause health problems. The NAAQS are developed from research studies and set at levels to protect public health. This includes health protection for sensitive groups, like those with heart and lung problems.

The facility is located in Macomb County, Michigan which is currently meeting all of the NAAQS. The AQD operates two air monitoring stations in Macomb County, one in Warren (measures ozone) and one in New Haven (measures ozone, particulate matter, and carbonyl compounds during ozone season). The AQD also has one site in Oakland County (measures ozone and particulate matter) and 11 in Wayne County which measure a variety of pollutants. The closest site is the Warren site 1.5 miles away that measures ozone. The next closest is seven miles away at Osborn High School in Detroit which measures ozone, particulate matter, nitrogen oxides, and air toxics during the summer months. Please note, the purpose of the air monitoring stations is to assess the regional or area-wide air

quality and is not used to determine if a specific source is in compliance with their air permit.

WILL AIR QUALITY STANDARDS BE MET?

A computer model was used to look at the expected impacts of the emissions from the proposed project on the air quality in the area surrounding the Warren WWTP facility. This type of computer model is called an air dispersion model and considers many factors, such as amount and type of emissions, prevailing wind direction and other factors.

The model showed that the expected impacts of the emissions from the new process, plus the existing monitored levels, are less than the applicable NAAQS for NO₂ and PM_{2.5}.

Michigan has developed health-based screening levels for additional pollutants referred to as toxic air containments (TAC) under its Air Toxics rules. The proposed TAC emissions from the project would comply with the AQD's Air Toxics rules. See Tables 7 and 8 in the Technical Fact Sheet for more information.

HOW WILL THE EMISSIONS CHANGE COMPARED TO THE EXISTING SEWAGE SLUDGE INCINERATOR?

The potential emissions from the new process are lower than the potential emissions from the current process. See Table 2 in the Technical Fact Sheet for more information.

WHAT ABOUT PFAS?

Per- and polyfluoroalkyl substances, known as "PFAS," are a group of man-made chemicals used in making things like firefighting foam, stain repellants, and non-stick cookware. PFAS can't break down easily in the environment and are also difficult to destroy. Some PFAS can build-up in our bodies, which can lead to health risks.

Warren WWTP and EGLE have tested the sludge produced by Warren WWTP and some PFAS have been found, so the AQD carefully evaluated the

potential PFAS emissions from the proposed sewage sludge disposal process.

The proposed permit conditions require Warren WWTP to operate the proposed furnaces at 1,994 °F. Research done by the USEPA shows that high temperature incineration can destroy PFAS. Based on this research, the required 1,994 °F temperature is expected to destroy most of the PFAS emissions.

The proposed permit conditions require the furnaces to destroy 90% of the PFAS emissions and require Warren WWTP to test the PFAS destruction using a chemical called hexafluoroethane (C₂F₆). C₂F₆ is hard to destroy like PFAS but is not toxic.

The proposed permit conditions also have emission limits for two specific PFAS compounds, perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), with emission testing to show Warren WWTP is meeting the emission limits.

WHAT DO I REALLY NEED TO KNOW ABOUT THE PROPOSED PERMIT?

The proposed permit has specific requirements Warren WWTP would have to follow if the permit is approved. Key areas you may be interested in, or that you may want more details on, include:

- **Emission limits** – amount of specific air pollutants allowed to be released. This includes limits for PFOS and PFOA.
- **Material limits** - the maximum amount of sewage sludge allowed to be processed. Warren WWTP would only be allowed to process sewage sludge generated at Warren WWTP.
- **Process restrictions** – ensure the proposed furnaces and air pollution control equipment are operating properly.
- **Emission Testing** – to show they are meeting the emission limits, including the PFOS and PFOA emission limits.
- **Monitoring and Recordkeeping** – monitoring of control devices and material usages, and records kept showing the disposal process meets all the requirements in the permit.

WHAT ABOUT WATER OR LAND CONCERNS?

The AQD does not regulate water or land use; however, Warren WWTP is required to comply with environmental regulations protecting the land and water in the area.

WAS ENVIRONMENTAL JUSTICE CONSIDERED FOR THIS PROJECT?

Part of opening a proposed permit for public comment involves evaluating the community around the proposed project, including environmental justice, translation, and other community specific concerns. Full details of how we consider this in permitting can be found in [“Including Environmental Justice: Air Permitting in Michigan.”](#) The language evaluation looks at the number of people who speak English “less than very well” within a 1-mile radius of the proposed project’s location. This is required by EGLE’s [Limited English Proficiency Plan](#) using an environmental justice screening tool like the USEPA’s [EJSCREEN](#). The evaluation found that translation was needed for Arabic, Bengali, and Polish.

WHERE CAN I FIND MORE INFORMATION?

Other information, like the [Technical Fact Sheet](#) and the [proposed permit conditions](#) can be found at Michigan.gov/EGLEAirPublicNotice, choose “Applications Open for Comment.”

The Technical Fact Sheet has additional details about the project and how it will meet the rules and regulations, such as:

- A summary of the reviews completed by AQD staff.
- How the project will affect air quality and public health.
- A summary of what the proposed permit would require Warren WWTP to do.
- A summary of emissions that are expected from the proposed project.
- The rules and regulations that apply to the proposed project.
- An appendix with a list of all TACs that were evaluated for the proposed project.

AQD staff can provide additional information upon request.

SUMMARY:

The AQD has reviewed the PTI application submitted by Warren WWTP and prepared a proposed permit. If the proposed permit is approved, it will ensure the facility meets the applicable air quality requirements. Therefore, we recommend approving the proposed permit.

However, before the AQD acts on the PTI application, we are requesting comments from the public. The AQD will review all comments received during the public comment period and public hearing and then decide whether to approve, approve with modifications, or deny the proposed PTI application.

WHO CAN I CONTACT?

For more information about the proposed permit, please contact Andrew Drury, AQD, at: DruryA@Michigan.gov or 517-648-6663.

WHAT PUBLIC COMMENTS CAN EGLE CONSIDER?

Comments from the public are very important. But it is also important to know the law is clear about what we can and cannot consider when we make our decision. Some examples follow.

What we can consider	What we can't consider
<ul style="list-style-type: none"> ✓ Technical mistakes in the review ✓ Grammar and spelling mistakes ✓ Other rules the action should consider and why ✓ Why the action will not follow the rules 	<ul style="list-style-type: none"> • Air, land, or water issues not part of the project • Indoor air pollution • Traffic • Noise and lights • Zoning issues • Anything unrelated to the project

HOW CAN I MAKE A COMMENT?

The AQD welcomes comments from the public during the comment period. Prior to making a comment, it is a good idea to “[View an Example](#)” of how to do it. You may also want to read the “[Public Hearings - What you should know](#)” card.

Documents pertaining to Warren WWTP can be found at: Michigan.gov/EGLEAirPublicNotice

Comments must be received by **August 20, 2024**.



Via email

EGLE-AQD-PTIPublicComments@Michigan.gov



Via US mail

Cindy Smith, Permit Section Manager, EGLE, AQD, P.O. Box 30260
Lansing, MI 48909-7760



Via voicemail

by calling 517-284-0900



At the Virtual Public Hearing

on August 8, 2024, starting at the close of the public meeting. The public may join the public meeting and hearing at: <https://bit.ly/3KzHFGT>. Call in to listen only at 636-651-3142 and use conference code 374288. EGLE staff will be available to answer questions and provide assistance if needed.



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