

PROPOSED PROJECT SUMMARY

CARMEUSE LIME & STONE – RIVER ROUGE, WAYNE COUNTY, MICHIGAN

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 Carmeuse Lime & Stone (Carmeuse). The AQD will accept comments on the proposed PTI until the close of the comment period on April 8, 2024. We will review all comments before we make a final decision on the proposed PTI.

WHAT DOES CARMEUSE CURRENTLY DO?

Carmeuse operates an existing facility at 25 Marion Avenue in River Rouge, Michigan (Figure 1). The facility produces lime using limestone as the primary raw material. Carmeuse heats the limestone in two existing rotary kilns which are heated primarily by burning coal. Natural gas, syngas, glycerin, and used oil can also be used as fuel to heat the kilns.

WHAT IS CARMEUSE PROPOSING TO DO?

Carmeuse is proposing to use coke oven gas (COG) as an additional fuel in their lime kilns. The COG would be used to reduce the amount of coal and/or used oil Carmeuse currently uses in the kilns. The COG would come from EES Coke Battery, LLC, where excess COG is currently burned in a flare.

Note, the COG contains sulfur which produces sulfur dioxide (SO₂) when burned. At EES Coke, the SO₂ from burning COG in the flare is not controlled. At Carmeuse, the kilns are controlled by a baghouse dust collector. The baghouse contains lime, which reacts with SO₂. Carmeuse estimates the lime in the baghouse reduces SO₂ emissions by 40% compared to the EES Coke flare emissions.

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 most processes or process equipment that emit, or may emit, air contaminants, such as using COG as a new fuel in Carmeuse's existing lime kilns.

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



Figure 1: Location of Carmeuse

WHY IS CARMEUSE GOING OUT TO PUBLIC COMMENT?

There has been historical interest in permitting actions for the Carmeuse facility.

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 SO₂, nitrogen dioxide (NO₂), carbon monoxide (CO), particulate matter equal to or less than 10 microns in diameter (PM₁₀), 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 the portion of Wayne County, Michigan which is currently meeting all of the NAAQS except for SO₂. The AQD operates 11 [air monitoring stations](#) in Wayne County. There are three air monitoring stations surrounding Carmeuse, the upwind River Rouge station, and the downwind stations of Trinity and Detroit–SW. The Trinity station is approximately one mile from Carmeuse and the Detroit–SW station is approximately two miles from Carmeuse. The Trinity station measures NO₂, metals, CO, PM_{2.5}, SO₂, and black carbon. The Detroit – SW station measures NO₂, metals, PM₁₀, PM_{2.5}, SO₂, black carbon, volatile organic compounds (VOCs) and carbonyls. 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 complying with their air permit.

WILL AIR QUALITY STANDARDS BE MET?

Carmeuse expects criteria pollutant emissions to decrease when COG is used, except for CO and VOC.

A computer model was used to look at the expected ground level concentrations of the increase in CO emissions from the proposed project on the air quality in the area surrounding Carmeuse. 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 the increase in CO emissions would be less than USEPA’s insignificant levels so the emissions are expected to meet the health protective NAAQS.

VOC emissions are regulated because they contribute to the formation of ozone, which is a regional pollutant. Since Carmeuse and EES Coke are only a mile away from each other, using COG at Carmeuse rather than burning it in a flare at EES coke would not increase VOC emissions in the area. Since there would not be a VOC increase, the project is not expected to increase ozone levels.

Michigan has developed health-based screening levels for additional pollutants referred to as toxic air containments (TACs) under its Air Toxics rules. The proposed TAC emissions from the project would also comply with the AQD’s health-based screening levels.

WHAT ABOUT THOSE WITH PRE-EXISTING LUNG DISEASE WHO SPEND TIME NEAR THE FACILITY?

Use of COG is not expected to cause breathing problems, even for those with pre-existing breathing problems. Comparing the emissions from using COG to the emissions from using coal, the hourly emission rates of most pollutants will not increase when COG is used. CO and VOC may increase but as noted above, these increases are not expected to cause health problems.

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

The proposed permit has specific requirements Carmeuse 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** – this is the amount of specific air pollutants that Carmeuse would be allowed to emit. SO₂ emission limits have been added that would apply when Carmeuse uses COG.
- **Emission Testing** – Carmeuse has to do emission testing to show that emissions meet the permit limits when using COG.
- **Monitoring and Recordkeeping** – Carmeuse would have to keep records showing they are meeting the requirements of their permit, including records of the SO₂ emissions when using COG and how much COG is used.

- A summary of the allowed emissions that are included in the proposed permit.
- The rules and regulations that apply to the proposed project.
- Example emission calculations.

AQD staff can provide additional information upon request.

SUMMARY:

The AQD has reviewed the PTI application submitted by Carmeuse 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 including the virtual public hearing OR at the in-person public meeting and hearing. Based on the comments received, the AQD will decide whether to approve, approve with modifications, or deny the proposed permit.

WAS ANY TRANSLATION INTO OTHER LANGUAGES DONE?

An evaluation of the number of people who speak English “less than very well” within a 1-mile radius of the proposed project’s location was done. This is required by EGLE’s [Limited English Proficiency Plan](#) using an environmental justice screening tool like USEPA’s [EJSCREEN](#). The evaluation found that translation into Spanish would be helpful.

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.” Carmeuse’s permit application and important correspondence with the AQD can be found on the [Other Applications of Interest](#) page under PTI application No. APP-2023-0028.

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 Carmeuse to do.

WHAT IF I HAVE QUESTIONS?

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

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 are below.

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 Carmeuse can be found at: Michigan.gov/EGLEAirPublicNotice

Comments must be received by April 8, 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/In-Person Public Hearing

The in-person public hearing on March 26, 2024, starting at 6:00 p.m. at the Kemeny Center, at 2260 South Fort Street, Detroit, MI 48217. The meeting and hearing will also be broadcast. The public may join the broadcast at: <https://bit.ly/3uA2b5H>. EGLE staff will be available to answer questions and provide assistance if needed.

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