

State Registration Number
N1888

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N1888-2022

Gentex Corporation

State Registration Number (SRN): N1888

Located at

600 North Centennial Street, Zeeland, Ottawa County, Michigan 49464

Permit Number: MI-ROP-N1888-2022

Staff Report Date: December 6, 2021

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) of the administrative rules promulgated under Act 451, requires that the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an ROP pursuant to Title V of the federal Clean Air Act; and Michigan's Administrative Rules for Air Pollution Control promulgated under Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source's applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This Staff Report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft ROP terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft ROP pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

General Information

Stationary Source Mailing Address:	Gentex Corporation 600 North Centennial Street Zeeland, Michigan 49464
Source Registration Number (SRN):	N1888
North American Industry Classification System (NAICS) Code:	336390
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	202000096
Responsible Official:	Scott Ryan, VP and General Counsel 616-772-1800
AQD Contact:	Chris Robinson, Environmental Quality Analyst 616-286-0083
Date Application Received:	June 9, 2020
Date Application Was Administratively Complete:	June 22, 2020
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	December 6, 2021
Deadline for Public Comment:	January 5, 2022

Source Description

Gentex manufactures products for the automotive and aerospace industries. Products include auto-dimming rearview mirrors, and imagers/cameras for the automotive industry and dimmable aircraft windows. Many of the components are manufactured onsite by use of plastic injection and metal casting. Glass is purchased and then cut and bent to shape onsite. Manufacturing also includes microelectronics which involves the soldering of components to circuit boards either by surface-mounting and/or through-hole technique. Other processes include chemical development and product assembly. The stationary source consists of a seven building campus with the headquarters located at 600 North Centennial Street. Gentex is located in Ottawa County and is surrounded by commercial and other industrial sectors with a public secondary school approximately 1 mile to the northeast.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2020**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	4.76
Lead (Pb)	0.34
Nitrogen Oxides (NO _x)	4.79
Particulate Matter (PM)	3.48
Sulfur Dioxide (SO ₂)	0.02
Volatile Organic Compounds (VOCs)	46.93

The following table lists Hazardous Air Pollutant emissions as calculated by Gentex for the year 2020.

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Acetonitrile	0.26
Dimethylformamide, N,N-	0.09
Ethyl Benzene	0.11
Lead	0.34
Methanol	0.18
Methyl Iodide	0.50
N-Hexane	0.20
Toluene	0.25
Xylene	0.46
Total Hazardous Air Pollutants (HAPs)	2.43

**As listed pursuant to Section 112(b) of the federal Clean Air Act.

See Parts C and D in the ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

Regulatory Analysis

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is in Ottawa County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of volatile organic compounds exceeds 100 tons per year.

The stationary source is a "synthetic minor" source regarding Hazardous Air Pollutant (HAP) emissions because the stationary source accepted a legally enforceable permit condition limiting the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, to less than 10 tons per year and the potential to emit of all HAPs combined to less than 25 tons per year.

No emission units at the stationary source are currently subject to the Prevention of Significant Deterioration regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451, because at the time of New Source Review permitting the potential to emit of volatile organic compounds was less than 250 tons per year.

During New Source Review permitting, the solvent formulation and manual cleaning operations underwent Best Available Control Technology (BACT) review, and VOC emission limits were established. The manual cleaning operations were also reviewed for air toxics, and acetone emission limits were established.

Emergency generators EUCENTNGGEN1, EUCENTNGGEN2, EUSTATENGGEN1, and EU58RILEYNGGEN at the stationary source are subject to the National Emission Standards for Hazardous Air Pollutants for Existing Spark Ignition Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ since they were installed prior to June 12, 2006.

Emergency generators EU220RILEYNGGEN, EU310RILEYNGGEN, EU380RILEYNGGEN1, EU9001RILEYNGGEN, EU9001RILEYNGGEN2, EUSTATENGGEN2, EUSTATENGGEN3, EUCHILLERNNGGEN, and EUCENTNGGEN3 at the stationary source are subject to the National Emission Standards for Hazardous Air Pollutants for New Spark Ignition Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ since they were installed after June 12, 2006. Due to the size and the age of these Emission Units, the only provisions of 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6590(c)(1)) that these Emission Units must comply with are the New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ.

EUCHILLERNNGGEN, EUCENTNGGEN3, EU220RILEYNGGEN, EU310RILEYNGGEN, EU380RILEYNGGEN1, EU9001RILEYNGGEN, EU9001RILEYNGGEN2, EUSTATENGGEN2, and EUSTATENGGEN3 at the stationary source are subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ.

The AQD's permit exemption Rules 287 and 290 were revised on December 20, 2016. FGRULE287(2)(c) and FGRULE290 are flexible group tables created for emission units subject to these rules. Emission units installed before December 20, 2016, can comply with the requirements of Rule 287 and Rule 290 in effect at the time of installation or modification as identified in the tables. However, emission units installed or modified on or after December 20, 2016, must comply with the requirements of the current rules as outlined in the tables.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

No emission units have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds.

Permit to Install (PTI) No. 57-21 was issued on August 18, 2021, and the conditions of the permit are being incorporated into this ROP renewal. The resulting changes to the ROP include switching the manual cleaning stations from ROP flexible groups (FGRILEYMANCLN, FGSTATEMANCLN, and FGCENTeMANCLN) to building wide emission units (EURILEYMANCLN, EUSTATEMANCLN, EUCENTeMANCLN, and EU9001RILEYMANCLN).

Other changes to the ROP include updating the emission unit summary table; renaming FGSIRICEMACT to FGSIXISTRICE to include generators considered “existing” per the RICE MACT; adding FGSINEWRICE to include all generators considered to be “New” per the RICE MACT; both the FGSIXISTRICE and FGSINEWRICE tables were updated with the most recent AQD versions; and all exempt emission unit Id’s were updated to account for removed/decommissioned and new equipment.

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

Source-Wide Permit to Install (PTI)

Rule 214a requires the issuance of a Source-Wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document.

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-N1888-2016 are identified in Appendix 6 of the ROP.

PTI Number			
117-14			

Streamlined/Subsumed Requirements

This ROP does not include any streamlined/subsumed requirements pursuant to Rules 213(2) and 213(6).

Non-applicable Requirements

Part E of the ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the ROP Application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the ROP pursuant to Rule 213(6)(a)(ii).

Processes in Application Not Identified in Draft ROP

The following table lists processes that were included in the ROP Application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EUBOILERS	34 natural gas fired boilers, max size 6 MMBTU/hr	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUHEATERS	5 natural gas fired heaters, max size 1.5 MMBTU/hr	Rule 212(4)(c)	Rule 282(2)(b)(i)

Draft ROP Terms/Conditions Not Agreed to by Applicant

This draft ROP does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements as of the effective date of this ROP.

Action taken by EGLE, AQD

The AQD proposes to approve this ROP. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the USEPA is allowed up to 45 days to review the draft ROP and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Heidi Hollenbach, Grand Rapids District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the ROP Application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.

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January 6, 2022 - STAFF REPORT ADDENDUM

ROP Number
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Purpose

A Staff Report dated December 6, 2021, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Scott Ryan, VP and General Counsel 616-772-1800
AQD Contact:	Chris Robinson, Environmental Quality Analyst 616-286-0083

Summary of Pertinent Comments

No pertinent comments were received during the 30-day public comment period.

Changes to the December 6, 2021 Draft ROP

No changes were made to the draft ROP. However one error in the Staff Report was noted. In the Source Description, the location of a nearby school was referenced as to the "northeast" of the facility and is actually to the "northwest."