

State Registration Number

N1336

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number

MI-ROP-N1336-2020

**BASF Corporation - BASF Automotive R & D Campus**

State Registration Number (SRN): N1336

Located at

26701 Telegraph Road, Southfield, Oakland County, Michigan 48034-2091

Permit Number: MI-ROP-N1336-2020

Staff Report Date: August 31, 2020

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).

## TABLE OF CONTENTS

<b>AUGUST 31, 2020 - STAFF REPORT</b>	<b>3</b>
<b>OCTOBER 7, 2020 - STAFF REPORT ADDENDUM</b>	<b>8</b>

State Registration Number

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**RENEWABLE OPERATING PERMIT**

**AUGUST 31, 2020 - STAFF REPORT**

ROP Number

MI-ROP-N1336-2020

**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:	BASF Corporation BASF Automotive R & D Campus 26701 Telegraph Road Southfield, Michigan 48034-2091
Source Registration Number (SRN):	N1336
North American Industry Classification System (NAICS) Code:	541380 (SIC = 8734)
Number of Stationary Source Sections:	One (1)
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	2020000006
Responsible Official:	Karen M. Cummins, Business Services Manager Phone: 248-948-2217 E-mail: karen.cummins@basf.com
AQD Contact:	Iranna Konanahalli, Senior Environmental Engineer 586-753-3741 or konanahalli@michigan.gov
Date Application Received:	January 21, 2020
Date Application Was Administratively Complete:	January 21, 2020
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	August 31, 2020
Deadline for Public Comment:	September 30, 2020

## Source Description

BASF Corporation - BASF Automotive R & D Campus is located in Southfield, Oakland County, on Telegraph Road, South of I-696 and North of Ten Mile Road. The facility is engaged in research and development (R&D) of automobile body paints. It is a nonproduction facility.

Upon consolidating in Southfield other business units such as EDN and Catalysts, the R&D, testing and business activities are conducted in four (4) buildings, established in 1969 and located on 17.6 acres, as follows:

1. Coating Research Center (CRC) building, 26701 Telegraph Road, main building. OEM Coatings, Printing, Packaging, and Adhesives technical center is 284,000 square feet (gross) and includes 68,000 square feet of laboratories, 30,000 square feet of office space, and 10,000 square feet of conferencing space. The site is the North American headquarters for BASF Coatings.
2. Pigments and Coatings Excellence (PACE) Group building, 24600 West 11 Mile Road. PACE building was known as ARC (Applications Research Center) building. ARC, where auto assembly-size e-coat, topcoat booths and ovens were present, was idled since July 2011. PACE includes 52,000 square feet (gross) of laboratory/high bay space supporting the formulation needs for pigments, resins, performance and formulation additives that are used in transportation, industrial, furniture, and floor coatings and plastics applications for the Dispersions & Pigments Divisions' Transportation, Industrial Coatings and Plastics (TICP) business.
3. CATALYST building, 24700 West 11 Mile Road. BASF's Catalyst building includes 16,000 square feet (gross) of office space supporting sales and applications engineering.
4. EDN (inks and resins, etc.) building, 24710 West 11 Mile Road. EDN includes 24,000 square feet (gross) of office space supporting the business.

Only activities controlled by BASF are considered part of the BASF Automotive R & D Campus. BASF does not control activities and operations performed by Tenants. A **tenant** is not part of a BASF Major Stationary Source based upon the tripartite test: (1) located on one or more contiguous or adjacent properties; (2) are under common control of the same person (or persons under common control); and (3) belong to a single major industrial grouping or are supporting the major industrial group (as determined by the Major Group codes in the Standard Industrial Classification Manual).

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2018**.

### TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	1
Lead (Pb)	0
Nitrogen Oxides (NO <sub>x</sub> )	3
Particulate Matter (PM)	4
Sulfur Dioxide (SO <sub>2</sub> )	0.01
Volatile Organic Compounds (VOCs)	6

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2018 by BASF:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
<b>Total Hazardous Air Pollutants (HAPs)</b>	<b>1</b>

\*\*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.

Oakland County is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the eight-hour ozone standard.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more 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.

**NSPS Dc:** EU-BOILER1 and EU-BOILER2 (FG-BOILERS) at the stationary source are subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units promulgated in 40 CFR Part 60, Subparts A and Dc.

**NESHAP/Boiler MACT 5D:** EU-BOILER1, EU-BOILER2 FG-BOILER-MACT5D and EU-PACE-CBBOILER3 (FG-NG-BOILER-MACT5D-SML-MJR-NEW) at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and DDDDD (NESHAP/Boiler MACT 5D).

**NESHAP/RICE MACT 4Z:** EU-EMERGENCY-GENERATOR-1 (FG-CI-RICE-MACT4Z) at the stationary source is subject to the National Emission Standard for Hazardous Air Pollutants Stationary Reciprocating Internal Combustion Engines (RICE) promulgated in 40 CFR Part 63, Subparts A and ZZZZ for Major Sources of HAPs, Compression Ignition (CI), Emergency Diesel RICE.

**CAM:** 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.

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."

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-N1336-2015 dated August 26, 2015, are identified in Appendix 6 of the ROP.

PTI Number			
NA			
All equipment such as paint spray booths and paint bake ovens are used for R&D and testing purposes only for development of principally OEM automotive paints and coatings: e-coat, basecoat, clearcoat. All combustion equipment burn only pipeline quality sweet natural gas to generate steam or hot water for principally space heating. Solvent cold-cleaners use proprietary solvents to clean R&D painting equipment and tools.			

**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
FGCRC-HVAC	16 – natural gas (NG) fired HVAC and make-up air units in CRC; 1 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)
FGPACE-HVAC	12 - NG-fired HVAC and make-up air units, and unit heaters in PACE; 1.65 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)
FGEDN-HVAC	2 - NG-fired HVAC units in EDN; 0.6 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)
EUCRC-HWH	2 - NG-fired hot water heater in CRC, domestic use; 0.24 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)
EUPACE-HWH	NG-fired hot water heater in PACE, domestic use; 0.40 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)
EUCAT-HWH	NG-fired hot water heater in CAT, domestic use; 0.075 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)
EUEDN-HWH	NG-fired hot water heater in EDN, domestic use; 0.05 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)
EU-BOILER3	NG-fired hot water boiler in CRC (Boiler 3); 0.60 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
FG-LOCHINVAR	NG-fired hot water boiler in CAT (Lochinvar Boiler); 0.4 MMBtu/hr max heat input; NG-fired hot water boiler in PACE; 0.5 MMBtu/hr max heat input	212(4)(c)	282(2)(b)(i)
Changes from the last ROP renewal: ARC changed to PACE CMC changed to END EU-LOCHINVAR changed to FG-LOCHINVAR			

**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 Joyce Zhu, Warren 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.

State Registration Number  
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**RENEWABLE OPERATING PERMIT**  
**OCTOBER 7, 2020 - STAFF REPORT ADDENDUM**

ROP Number  
MI-ROP-N1336-2020

**Purpose**

A Staff Report dated August 31, 2020, 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:	Karen M. Cummins, Business Services Manager 248-948-2217 or karen.cummins@basf.com
AQD Contact:	Iranna Konanahalli, Senior Environmental Engineer 586-753-3741 or konanahalli@michigan.gov

**Summary of Pertinent Comments**

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

**Changes to the August 31, 2020 Draft ROP**

No changes were made to the draft ROP.