Michigan Department of Environmental Quality
Air Quality Division

State Registration Number

B6027

RENEWABLE OPERATING PERMIT STAFF REPORT

ROP Number

MI-ROP-B6027-2018

Inteva Products, LLC-Adrian Operations

SRN: B6027

Located at

1450 East Beecher Street, Adrian, Lenawee County, Michigan 49221

Permit Number: MI-ROP-B6027-2018

Staff Report Date: September 25, 2017

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) requires that the Michigan Department of Environmental Quality (MDEQ), 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

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 of 1990 and Michigan's Administrative Rules for Air Pollution Control pursuant to 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:	Inteva Products, LLC-Adrian Operations 1401 Crooks Road #100 Troy, Michigan 48084
Source Registration Number (SRN):	B6027
North American Industry Classification System (NAICS) Code:	336360
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201700017
Responsible Official:	Mark Ellerbrock, Plant Manager 517-265-4211
AQD Contact:	Mike Kovalchick, Senior Environmental Engineer 517-780-5496
Date Application Received:	January 31, 2017
Date Application Was Administratively Complete:	January 31, 2017
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	September 25, 2017
Deadline for Public Comment:	October 25, 2017

Source Description

Inteva Products, LLC - Adrian Operations facility is located at 1450 East Beecher Road within the Adrian city limits and Madison Township, Lenawee County, Michigan.

The property is fenced along all borders, which are bounded by Treat Highway to the west, Beecher Street to the north, a correctional facility to the east, and a mix of woods and grassy fields to the south. There is some isolated housing located WNW of the plant with the land adjoining to the south being vacant. The facility has railroad access on the south side via a rail spur that joins into the main railroad tracks to the west.

The facility manufactures plastic automotive interior instrument panels. The panels are injection molded then painted on-site. Coating operations occur in ventilated paint booths. The facility operates automated spray paint lines EU-P5, EU-Paint 1, EU-Paint 2, and EU-Paint 3 which are equipped with water-wash systems, robotic spray paint booths, and natural gas dryer ovens. EU-Paint 1 is equipped with additional air pollution control equipment, including a rotary carbon concentrator (RCC) and a regenerative thermal oxidizer (RTO). A third paint booth (EU-CKIP#2) is used for more small scale painting activities, such as for small-scale service part orders. The injection molding process starts with the plastic pellets delivered via rail car and tractor trail and transferred to the facility's storage tanks via two trestle piping runs in the plant. The pellets are then sent through a drying process before utilization in the facility's injection molding machines.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2016**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	2.82
Lead (Pb)	0
Nitrogen Oxides (NO_x)	6.67
Particulate Matter (PM)	0
Sulfur Dioxide (SO_2)	0
Volatile Organic Compounds (VOCs)	76.02

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2016 by AQD:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Formaldehyde	Less than one ton
Hexane	Less than one ton
Total Hazardous Air Pollutants (HAPs)	**Less than one ton**

**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 located in Lenawee County, which is currently designated by the U.S. 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 and the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, 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 emissions 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 each criteria pollutant was less than 250 tons per year.

FG-MACT PPPP-PLASTIC PARTS COATING at the stationary source is subject to the National Emission Standard for Hazardous Air Pollutants for coating of plastic parts and products promulgated in 40 CFR Part 63, Subparts A and PPPP.

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."

EU-Paint 1 at the stationary source is subject to the federal Compliance Assurance Monitoring (CAM) rule under 40 CFR Part 64. This emission unit has a control device and potential pre-control emissions of volatile organic compounds greater than the major source threshold level. The volatile organic emission limit of 40 tons per year (12-month rolling) was established per Rule 702(a). The monitoring for the control device is desorption gas inlet temperature in the concentrator and monitoring of the temperature in the combustion chamber of the thermal oxidizer in order to ensure efficient capture and destruction of the emissions. The facility also has a malfunction abatement plan for the control equipment identified as Malfunction Abatement Plan-Adrian Operations Management System last revised 2/13/2017 which is not included in the ROP.

Emission Unit ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring	Presumptively Acceptable Monitoring?
EU-Paint 1	VOC/40 tpy	R336.1702(a)	Rotary carbon concentrator and a regenerative thermal oxidizer (RTO), except during RTO by-pass mode.	Desorption gas inlet temperature and thermal oxidizer temperature monitored; also malfunction abatement plan.	No

Since the previous ROP was issued, the facility has installed a new plastic parts coating line consisting of one automatic spray dry filter booth and one natural gas-fired bake oven referred to as EU-Paint 3. In addition, PTI No. 51-14 was issued for an increase in the VOC limit for existing paint booths 1 and 2 which were associated with EU-CKIP#3. It was also issued to allow facility flexibility regarding the use of the existing rotary carbon concentrator and regenerative thermal oxidizer (RTO) by allowing periods of RTO by-pass.

The emission unit previously known as EU-CKIP#3 was a conveyorized line which consists of two robotic flame treatment systems, two automatic paint booths 1 & 2, followed by a flash-off tunnel, followed by two more automatic paint booths 3 & 4, followed by another flash-off tunnel, followed by a natural gas fired paint bake oven. Although each part that is coated passes through all paint booths, tunnels and the oven,

the parts are either sprayed in booths 1 & 2 only, or in booths 3 & 4 only. (The rotary carbon concentrator and RTO is equipped to control emissions from booths 1 & 2 only.) Therefore, a decision was made that EU-CKIP#3 should be split into two separate emission units as follows: EU-Paint 1 and EU-Paint 2.

Also since the previous ROP became effective, PTI No. 135-07D was issued for a modification of an interior automotive plastic parts coating line known as EU-P5 which increased the material limits for the paint coatings.

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-B6027-2012 are identified in Appendix 6 of the ROP.

PTI Number			
177-04A	5-77	23-84	243-77
221-80C	179-89B	560-97	159-85
198-80	794-80A	643-94	914-78
794-80	135-07B	135-07C	

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
EU-MISC-HEATERS	Miscellaneous Direct Fired Gas Space Heaters < 10 MMBTU/hour	Rule 282(2)(b)(i)	Rule 212(4)(c)
EU-BOILER#35-1	Cleaver Brooks natural gas fire boiler A-35-1. 14.645 mmBTU/hour	Rule 282(2)(b)(i)	Rule 212(4)(c)
EU-BOILER#15-2	Cleaver Brooks natural gas fire boiler A-15-2. 6.2775 mmBTU/hour	Rule 282(2)(b)(i)	Rule 212(4)(c)

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 the MDEQ, 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 Scott Miller, Jackson 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.

Purpose

A Staff Report dated September 25, 2017, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). 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 R 336.1214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Mark Ellerbrock, Plant Manager 517-265-4211
AQD Contact:	Mike Kovalchick, Senior Environmental Engineer 517-416-5025

Summary of Pertinent Comments

Comments were received during the 30-day public comment period. The AQD's response to pertinent comments are as follows:

EPA Comments

EPA Comment 1:
For EU-Paint 1, the permit record includes a document entitled, "Management of Abatement Equipment CK#3," last revised 5/6/2016. Please verify that this document meets the content requirements of the Malfunction Abatement Plan (MAP) and FG-MACTPPPP: Startup, Shutdown and Malfunction Plan (SSMP) or include additional documentation in the permit record as necessary.

AQD Response 1:
An updated MAP was submitted to AQD in February 2017 that addresses all of the required elements listed under R 336.1911 for the water-wash system, rotary carbon concentrator and the regenerative thermal oxidizer. The updated MAP has now been posted with the application and is available for review.

Furthermore, the following requirement does not apply because the control equipment is not used for compliance with 40 CFR 63, Subpart PPPP: FG-MACTPPPP, Special Condition (SC) III.3. requires an SSMP in accordance with 40 CFR 63.6(e)(3) and 40 CFR 63.4500(c) if the source is using the emission capture system and add-on control device compliance option.

EPA Comment 2:
For EU-Paint 1, the staff report indicates that EU-Paint 1 is subject to Compliance Assurance Monitoring (CAM) pursuant to 40 CFR Part 64, however, the permit does not include the applicable CAM requirements as specified in 40 CFR 64.6(c).

AQD Response 2:
EU-Paint 1 at the stationary source is subject to CAM. This emission unit has a control device and potential pre-control emissions of volatile organic compounds greater than the major source threshold level. The

monitoring for the control device is desorption gas inlet temperature in the concentrator, pressure drop across the concentrator filter and monitoring of the temperature in the combustion chamber of the thermal oxidizer in order to ensure efficient capture and destruction of the emissions. The facility has a MAP for the control equipment identified as Malfunction Abatement Plan-Adrian Operations Management System last revised 2/13/2017. The applicable CAM requirements have been added to EU-Paint 1 and an updated CAM plan requested.

EPA Comment 3:
For EU-Paint 1, although the permit includes recordkeeping requirements for calculating emissions on a mass balance basis, the permit does not specify the emissions calculations when the RTO and the rotary carbon concentrator are in operation. Please revise the permit and the Staff Report as appropriate to address the specific monitoring, recordkeeping, and calculations necessary to assure compliance with the VOC emissions limits when the control equipment is operating, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response 3:
Performance testing is required according to EU-Paint 1, SC V.2 and SC V.3. SC V.3 covers the capture efficiency and SC V.2 covers the destruction efficiency. SC VI.2, SC VI.3 and SC VI.4 require monitoring of the rotary carbon concentrator gas inlet temperature, pressure drop across the filter in the rotary carbon concentrator and the RTO combustion chamber temperature, respectively. Concerning the recordkeeping found in SC VI.7, SC VI.7.b requires the material usage to be tracked during RTO operation and when it is not operating and SC VI.7.d specifies the monthly emission calculations during both modes of operation as well. Therefore, the requirements of 40 CFR 70.6(a)(3) and (c)(1) are satisfied with the current conditions as written. The term “RTO operation” automatically includes the operation of the rotary carbon concentrator because one can’t be operated without the other. The recordkeeping requirements are spelled out in the permit as appropriate.

EPA Comment 4:
For EU-P5, Section II has two material limits that include a “footnote 2” federally enforceable designation, but the permit identifies the underlying applicable requirement as R 336.1225. Please review these limits to verify whether the “footnote 1” state enforceable-only designation or the “footnote 2” designation is correct, and revise the permit as appropriate.

AQD Response 4:
Two material limits in EU-P5 Sections II were incorrectly identified with a “footnote 2,” which is a federally enforceable designation. The permit identifies the underlying applicable requirement as R 336.1225 so it has been revised instead to include “footnote 1” which is state enforceable-only designation.

EPA Comment 5:
For EU-Paint 3, the VOC limit in Section I does not include a “footnote 2” designation. Please verify whether the limit is a Title I federally enforceable condition pursuant to Rule 201(1)(a) and include footnote 2 as appropriate. In addition, the monitoring and recordkeeping requirements in SC VI.4 appear to be missing recordkeeping requirements for materials reclaimed. Please revise the permit as necessary to address the specific monitoring and recordkeeping requirements necessary to assure compliance with the VOC emissions limit, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response 5:
The VOC limit in Section I did not include a “footnote 2” which is a federally enforceable designation. The permit has been revised to include this designation. In addition, for the monitoring and recordkeeping requirements in SC VI.4, the word “reclaimed” has been added to the permit condition per Rule 213(3). The recordkeeping requirements are spelled out in the permit as appropriate.

EPA Comment 6:
The flexible group description for FG-MACTPPPP misidentifies 40 CFR Part 63, Subpart PPPP as Surface Coating of Automobiles and Light Duty Trucks. Please revise the description to identify Subpart PPPP as Surface Coating of Plastic Parts and Products.

AQD Response 6:
The description in the "FLEXIBLE GROUP SUMMARY TABLE" was corrected to identify 40 CFR 63, Subpart PPPP as Surface Coating of Plastic Parts and Products.

Changes to the September 25, 2017 Draft ROP

The following changes were made to the revised draft ROP to address comments for the following reasons:

EPA Comment #2**:**
The applicable CAM requirements have been added to EU-Paint 1 consistent with the MDEQ's CAM example template and an updated CAM plan has been requested from the company.

EPA Comment #4:
Two material limits in EU-P5, SC II.2 and SC II.3. previously included a "footnote 2" which is a federally enforceable designation. The permit has been revised instead to include "footnote 1" which is state enforceable-only designation.

EPA Comment #5:
A "footnote 2" has been added to the VOC limit in EU-P5, SC I.1 to indicate this is a federally enforceable limit. The word "reclaimed" has been included in the recordkeeping condition in EU-P5, SC VI.4.a.

EPA Comment #6:
The description in the "FLEXIBLE GROUP SUMMARY TABLE" was corrected so that the description in the table matches the description in the "FG-MACT PPPP FLEXIBLE GROUP CONDITIONS." The permit now includes the correct description to identify 40 CFR 63, Subpart PPPP as Surface Coating of Plastic Parts and Products.