



State Registration Number

B5830

Michigan Department of Environmental Quality
Air Quality Division

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number

MI-ROP-B5830-2015b

AJAX METAL PROCESSING, INC

SRN: B5830

Located at

4651 Bellevue Street, Detroit, Michigan 48207

Permit Number: MI-ROP-B5830-2015b

Staff Report Date: July 27, 2015

Amended Dates: August 26, 2016
October 24, 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

July 27, 2015 STAFF REPORT	3
September 23, 2015 STAFF REPORT ADDENDUM	8
August 26, 2016 STAFF REPORT FOR RULE 216(2) MINOR MODIFICATION	10
October 14, 2016 STAFF REPORT ADDENDUM FOR RULE 216(2) MINOR MODIFICATION	11
October 24, 2017 STAFF REPORT FOR RULE 216(2) MINOR MODIFICATION	12



Michigan Department of Environmental Quality
Air Quality Division

State Registration Number

RENEWABLE OPERATING PERMIT

ROP Number

B5830

July 27, 2015 STAFF REPORT

MI-ROP-B5830-2015

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with a 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 report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft permit terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft permit 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:	Ajax Metal Processing Inc. 4651 Bellevue Street Detroit, Michigan 48207
Source Registration Number (SRN):	B5830
North American Industry Classification System (NAICS) Code:	332813
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201400088
Responsible Official:	David Krause, General Manager 313-267-2100
AQD Contact:	Terseer Hemben, Environmental Engineer 313-456-4677
Date Application Received:	May 30, 2014
Date Application Was Administratively Complete:	May 30, 2014
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	July 27, 2015
Deadline for Public Comment:	August 26, 2015

Source Description

Ajax Metal Processing Inc. is a metal finishing facility located in Detroit, Michigan. The facility offers metal finishing services which includes heat treating, plating and the application of locking and sealing materials onto metal fasteners, including nuts and bolts, for companies such as Ford Motor Company, FCA USA, LLC (formerly Chrysler Group, LLC) and General Motors. Ajax Metal Processing Inc. operates under the Renewable Operating Permit (ROP) No. MI-ROP-5830-2009a. The permit includes stacks that discharge exhaust gases into the ambient air.

Ajax Metal Processing Inc. operates various processes including: a dip/spin paint line, an emergency generator, flow coat process lines, zinc phosphating lines, plating lines, heat treating, boilers and hardening furnaces. Also, there are numerous plating tanks, solution-holding tanks and solid waste holding bins. The ROP for Ajax Metal Processing Inc. comprises 23 emission units (EU). Some of the EUs have scrubber control devices installed for emission controls. The presence of control devices on specific lines is listed in the Emission Unit Summary Table.

In the ROP, the EUs are organized into five flexible groups (FG). The groups are described in the Flexible Group Summary Table. FGLOCKSEAL and FGMACT contain the following EUs: EUL&OVENS, EULOCKTITE1, EULOCKTITE2, EULOCKTITE3, EUWHEEL1, EUWHEEL2, EUWHEEL3, EUWHEEL4, and EUDIPSPIN. FGPLATINGLINES comprises 6 plating lines that consist of alkaline cleaning baths, hydrochloric acid pickling baths and zinc electroplating tanks (EUPLATING1, EUPLATING3, EUPLATING4, EUPLATING6, EUPLATING11, and EUPLATING12). FGBOILERMACT includes EUBOILER60HP, EUBOILER150HP, EUHARDENING1, EUHARDENING2, and EUENDO. Last, FGRULE290 consists of any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290 (EUWAX, EUPHOS1, and EUPHOS2).

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System in the **2013** submittal.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	8.80
Lead (Pb)	0.000035
Nitrogen Oxides (NO _x)	13.87
Particulate Matter (PM)	0.98
Sulfur Dioxide (SO ₂)	0.083
Volatile Organic Compounds (VOCs)	18.85
Individual Hazardous Air Pollutants (HAPs) **	
Hydrochloric Acid (HCl)	0.15

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

In addition to the pollutants listed above that have been reported in MAERS, the potential to emit Greenhouse Gases in tons per year of CO₂e is less than 100,000 tons. CO₂e is a calculation of the combined global warming potentials of six Greenhouse Gases (Carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride)

See Parts C and D in the draft 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 addressed in the non-applicable requirement part of the Staff Report and Part E of the ROP.

Ajax Metal Processing is located in Wayne County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment for all criteria pollutants, except for a portion of Wayne County designated as nonattainment for sulfur dioxide.

The stationary source is subject to Title 40 of the Code Federal Regulations (CFR) Part 70, because 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.

In October 2011, Permit to Install (PTI) No. 131-11 was issued to streamline the plating conditions into a single flexible group and to revise the EU names of the plating lines. This PTI was incorporated into the ROP as a minor modification in April 2013.

No emissions units at the stationary source are currently subject to Prevention of Significant Deterioration regulations of 40 CFR, Part 52.21 or 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 criteria pollutants was less than 250 tons per year.

At this time, there are no GHG applicable requirements to include in the ROP. The mandatory Greenhouse Gas Reporting Rule under 40 CFR Part 98 is not an ROP applicable requirement and is not included in the ROP.

EUDIPSPIN, EUL&OVENS, EUOCTITE1, EULOCKTITE2, EUOCTITE3, EUWHEEL1, EUWHEEL2, EUWHEEL3 and EUWHEEL4 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products promulgated in 40 CFR, Part 63, Subparts A and MMMM.

EUBOILER60HP, EUBOILER150HP, EUHARDENING1, EUHARDENING2, and EUENDO at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in 40 CFR, Part 63, Subpart A and DDDDD.

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

No emission units are subject to the federal Compliance Assurance Monitoring rule under 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.

Please refer to Parts B, C and D in the enclosed 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 and Wayne County Permits that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-B5830-2009 are identified in Appendix 6 of the ROP.

Wayne County Permit Number and PTI Number			
C-8575	C-8576	C-9221	C-9222
C-9453	C-9454	C-3686	C-3687
C-5521	C-5522	14-05	NA

Streamlined/Subsumed Requirements

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

Non-applicable Requirements

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

Exempt Emission Unit ID	Description of Exempt Emission Unit	ROP Exemption	NSR Permit Exemption
EUAIRMAKEUP	Four natural gas-fired air make up units each with a maximum heat input of 5.3 MMBtu/hr.	Rule 336.1212(4)(b)	R 3361282(b)(ii)
EUCOGEN	500 kW natural gas-fired steam/electric IC engine. Maximum heat input capacity of 2.5 MMBtu/hr.	Rule 336.1212(4)(d)	R 3361282(b)(ii)
EUHEATTREAT1	Natural gas-fired heat treat line consisting of a hardening furnace with oil quench and a tempering furnace with water soluble oil quench.	Rule 336.1212(4)(d)	R 336.1282)(a) (Effective January 18, 1980)
EUHEATTREAT2	Natural gas-fired heat treat line consisting of a hardening furnace with water soluble oil quench.	Rule 336.1212(4)(d)	R 336.1282)(a) (Effective January 18, 1980)

Draft ROP Terms/Conditions Not Agreed to by Applicant

This permit 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 permit. 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 permit 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 Wilhemina McLemore, Detroit District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the permit 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.

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number

RENEWABLE OPERATING PERMIT

ROP Number

B5830

September 23, 2015 STAFF REPORT ADDENDUM

MI-ROP-B5830-2015

Purpose

A Staff Report dated July 27, 2015 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:	David Krause, General Manager 313-267-2100
AQD Contact:	Terseer Hemben, Environmental Engineer 313-456-4677

Summary of Pertinent Comments

The Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD) received the following comments from Ajax Metal Processing during the public comment period from July 27, 2015 to August 26, 2015.

Comment 1

On Page 13, update the description of EUHARDENING2 in the Emission Unit Table.

AQD Response 1

AQD has made the change per Ajax Metal Processing's request.

Comment 2

For flexible group FGLOCKSEAL, correct the typographical errors for Special Conditions (SC) I.3, SC IV.1 and SC IX.6 by formatting the footnote reference as a superscript and correcting the underlying applicable requirement (UAR) citations for R 336.1224 and R 336.1702.

AQD Response 2

AQD has made the changes as requested.

Comment 3

For flexible group FGMACT, revise the language in SC VI.3.i to make it consistent with 40 CFR Part 63, Subpart Mmmm. Also, delete the phrase "by initial compliance date" in SC IX.1 since this date occurred in the past.

AQD Response 3

AQD has made the changes as requested.

Comment 4

For flexible group FGBOILERMACT, correct typographical errors in SC III.1 and SC III.2 by deleting “or” and deleting the extra period, respectively. Also, for SC III.4 through SC III.6, add to each of the special conditions, the words “tune up of the”. These words were inadvertently omitted. Additionally, modify SC III.4 through SC III.6 to make the language more consistent with the Boiler Maximum Achievable Control Technology (MACT) regulation.

AQD Response 4

AQD agrees and has made the changes per Ajax Metal Processing’s request.

Comment 5

In the justification column of the Non-applicable Requirement Table on Page 32, replace the work “Rule” with “40 CFR”.

AQD Response 5

AQD has made the requested change.

Changes to the July 27, 2015 Draft ROP

The AQD has corrected the typographical errors and made revisions as indicated in the comments above. In addition, the following changes were made to the July 27, 2015, draft ROP in response to the comments received during the 30-day public comment period:

On page 13, for the Emission Unit Summary Table, the emission unit description of EUHARDENING2 was revised to read as follows: 11 MMBtu/hr Hardening Furnace 2 (40 Burners at 275,000 BTUs each. Five heating zones each with 8 burners).

On page 21, for SC VI.3.i of FGMACT, the language was revised to read as follows: For either the emission rate without add-on controls option or the emission rate with add-on controls compliance option, the density for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

On pages 26 and 27, for SC III.4 through III.6 of FGBOILERMACT, the special conditions were revised as follows:

4. New and existing boilers or process heaters with continuous oxygen trim system or heat input capacity less than 5 million Btu per hour must conduct a 5-year tune up of the boiler or process heater. Each 5-year tune up must be conducted no more than 61 months after the previous tune up. **(40 CFR 63.7500(e), 63.7515(d), 63.7540)**
5. New and existing boilers or process heaters without continuous oxygen trim system and with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must conduct a biennial tune up of the boiler or process heater. Each biennial tune up must be conducted no more than 25 months after the previous tune up. **(40 CFR 63.7500(e), 63.7515(d), 63.7540)**
6. New and existing boilers or process heaters, including metal process furnaces, without continuous oxygen trim system and with heat input capacity greater than 10 million Btu per hour must conduct an annual tune up of the boiler or process heater. Each annual tune up must be conducted no more than 13 months after the previous tune up. **(40 CFR 63.7500, 63.7515(d), 63.7540)**

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number

B5830

RENEWABLE OPERATING PERMIT

**August 26, 2016 STAFF REPORT FOR RULE
216(2) MINOR MODIFICATION**

ROP Number

MI-ROP-B5830-2015a

Purpose

On November 12, 2015, the Department of Environmental Quality, Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-B5830-2015 to Ajax Metal Processing, Inc pursuant to R 336.1214. Once issued, a company is required to submit an application for changes to the ROP as described in R 336.1216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to R 336.1216(2).

General Information

Responsible Official:	David Krause, General Manager 313-267-2100
AQD Contact:	Caryn E. Owens, Environmental Quality Analyst 231-876-4414
Application Number:	201600128
Date Application For Minor Modification Was Submitted:	July 19, 2016

Regulatory Analysis

The AQD has determined that the change requested by the stationary source meets the qualifications for a Minor Modification pursuant to R 336.1216(2).

Description of Changes to the ROP

Incorporate PTI 47-16, which is for installing a new dip line (EUDIPSPIN2) and to modify the size of the plating tank on EUPLATINGLINE11. Additionally, the facility will be a synthetic minor source for VOC which is the main concern criteria pollutant for the facility.

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Minor Modification to the ROP.

Action Taken by the DEQ

The AQD proposes to approve a Minor Modification to ROP No. MI-ROP-B5830-2015, as requested by the stationary source. A final decision on the Minor Modification to the ROP will not be made until any affected states and the U.S. Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is the District Supervisor. The final determination for approval of the Minor Modification will be based on the contents of the permit application, a judgment that the stationary source will be able to comply with applicable emission limits and other requirements, and resolution of any objections by any affected states or the USEPA.

State Registration Number

B5830

RENEWABLE OPERATING PERMIT

**October 14, 2016 STAFF REPORT ADDENDUM
FOR RULE 216(2) MINOR MODIFICATION**

ROP Number

MI-ROP-B5830-2015a

Purpose

A Staff Report dated August 26, 2016, was developed in order to set forth the applicable requirements and factual basis for the proposed Minor Modification to the Renewable Operating Permit's (ROP) terms and conditions as required by R 336.1216(2)(c). The purpose of this Staff Report Addendum is to summarize any significant comments received on the proposed ROP modification during the U.S. Environmental Protection Agency's (USEPA) 45-day comment period as described in R 336.1216(2)(c). In addition, this addendum describes any changes to the proposed ROP Minor Modification resulting from these pertinent comments.

General Information

Responsible Official:	David Krause, General Manager 313-267-2100
AQD Contact:	Caryn E. Owens, Environmental Quality Analyst 231-876-4414

Summary of Pertinent Comments

No pertinent comments were received during the USEPA's 45-day comment period.

Changes to the August 26, 2016 Proposed ROP Minor Modification

No changes were made to the proposed ROP Minor Modification.

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number

B5830

RENEWABLE OPERATING PERMIT

**October 24, 2017 STAFF REPORT FOR RULE
216(2) MINOR MODIFICATION**

ROP Number

MI-ROP-B5830-2015b

Purpose

On October 14, 2016, the Department of Environmental Quality, Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-B5830-2015a to Ajax Metal Processing pursuant to R 336.1214. Once issued, a company is required to submit an application for changes to the ROP as described in R 336.1216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to R 336.1216(2).

General Information

Responsible Official:	David Krause, General Manager 313-267-2100
AQD Contact:	Caryn E. Owens, Environmental Engineer 231-876-4414
Application Number:	201700119
Date Application For Minor Modification Was Submitted:	September 11, 2017

Regulatory Analysis

The AQD has determined that the change requested by the stationary source meets the qualifications for a Minor Modification pursuant to R 336.1216(2).

Description of Changes to the ROP

Application Number 201700119 was to incorporate PTI 47-16, which is for changing EUDIPSPIN2 stacks with the rain cap devices. Ajax met Rule 225 requirement via Rule 227(1)(a) analysis. All other applicable requirements in FGLOCKSEAL remain unchanged.

Additionally, a Condition to complete all required calculations for FGPLATINGLINES was added to the Monitoring and Recordkeeping Conditions in the FGPLATINGLINES Table.

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Minor Modification to the ROP.

Action Taken by the DEQ

The AQD proposes to approve a Minor Modification to ROP No. MI-ROP-B5830-2015a, as requested by the stationary source. A final decision on the Minor Modification to the ROP will not be made until any affected states and the U.S. Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is the District Supervisor. The final determination for approval of the Minor Modification will be based on the contents of

the permit application, a judgment that the stationary source will be able to comply with applicable emission limits and other requirements, and resolution of any objections by any affected states or the USEPA.