From: Jessica Alderton
To: EGLE-ROP
Cc: Matt Perko; Zhu, Joyce (EGLE); Dziadosz, Mark (EGLE)
Subject: B4049 - ROP Renewal Application
Date: Friday, February 9, 2024 4:24:30 PM
Attachments: B4049 - ROP Renewal Application Form.pdf
B4049_ROP_MARK-UP.docx

Hello -

Please see the attached ROP application with associated attachments and the mark-up. The hardcopy will be sent via FedEx on Monday.

Please let me know if you have any questions.

Thanks,

Jessica Alderton, P.E.
Staff Environmental Engineer - Sustainable Workplaces
586-863-8490 (cell)
Email: jessica.alderton@gm.com

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

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EGLE

RENEWABLE OPERATING PERMIT
RENEWAL APPLICATION FORM

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at http://michigan.gov/air (select the Permits Tab, "Renewable Operating Permits (ROP)/Title V", then "ROP Forms & Templates").

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
B4049	3711	541380	MI-ROP-4049-2019a	

Source Name: General Motors LLC – Warren Technical Center

Street Address: 31295 Charles Kettering Road

City	State	ZIP Code	County
Warren	MI	48092	Macomb

Section/Town/Range (if address not available):

Source Description: The GM Technical Center located in Warren, MI consists of multiple buildings co-located on a central campus that includes the following activities: Research and Development, Engineering and Design, Prototype development and builds, as general office areas.

☐ Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.

OWNER INFORMATION

Owner Name	Section Number (if applicable)
General Motors LLC	

Mailing address (☐ check if same as source address): 300 Renaissance Center

City	State	ZIP Code	County	Country
Detroit	MI	48265	Wayne	United States

☐ Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

SRN: B4049	Section Number (if applicable):

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name			Title	
Jessica Alderton			Staff Environmental Engineer	
Company Name & Mailing address (☐ check if same as source address)				
General Motors, LLC - 29755 Louis Chevrolet Road				
City	State	ZIP Code	County	Country
Warren	MI	48093	Macomb	United States
Phone number		E-mail address		
586-863-8490		Jessica.alderton@gm.com		

Contact 2 Name (optional)			Title	
Matthew Perko			Environmental Engineer	
Company Name & Mailing address (☐ check if same as source address)				
General Motors – Warren Technical Center, 31295 Charles Kettering Road				
City	State	ZIP Code	County	Country
Warren	MI	48092	Macomb	United States
Phone number		E-mail address		
586-242-6763		Matthew.perko@gm.com		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name			Title	
Amanda Allen			Sr. Mgr, Facilities, Non-Manufacturing and CCA	
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
248-303-3480		Amanda.allen@gm.com		

Responsible Official 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

☐ Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

SRN: B4049	Section Number (if applicable):

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.	
☒ Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP using official version from the AQD website (required)	☐ Stack information
☒ Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☒ Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	☐ Cross-State Air Pollution Rule (CSAPR) Information
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	☒ Paper copy of all documentation provided (required)
☐ Compliance Assurance Monitoring (CAM) Plan	☒ Electronic documents provided (optional)
☐ Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	☐ Other, explain:

Compliance Statement

This source is in compliance with **all** of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. ☒ Yes ☐ No

This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP. ☒ Yes ☐ No

This source will meet in a timely manner applicable requirements that become effective during the permit term. ☒ Yes ☐ No

The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.

If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.

Name and Title of the Responsible Official (Print or Type)

Amanda Allen, Sr. Mgr, Facilities, Non-Manufacturing and CCA

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

Signature of Responsible Official **Date** 2/8/24

SRN: B4049	Section Number (if applicable):

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from **all** emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes, identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☒ Yes ☐ No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68)	☐ Yes ☒ No
	If Yes, a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	☐ Yes ☐ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☒ Yes ☐ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☒ Yes ☐ No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes, identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	☐ Yes ☒ No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes, identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form.	☐ Yes ☒ No
	Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☒ No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes, identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy.	☐ Yes ☒ No
	Is a CAM plan included with this application?	☐ Yes ☒ No
	If a CAM Plan is included, check the type of proposed monitoring included in the Plan:	
	1. Monitoring proposed by the source based on performance of the control device, or	☐
	2. Presumptively Acceptable Monitoring, if eligible	☐
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement?	☐ Yes ☒ No
	If Yes, then a copy must be submitted as part of the ROP renewal application.	
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable?	☐ Yes ☒ No
	If Yes, then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	

☒ Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI-**PARTC

SRN: B4049	Section Number (if applicable):

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION

Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If Yes, identify the emission units in the table below. ☒ Yes ☐ No

If No, go to Part E.

Note: Emission units that are subject to process specific emission limitations or standards, even if identified in Rule 212, must be captured in either Part G or H of this application form. Identical emission units may be grouped (e.g. PTI exempt Storage Tanks).

Emission Unit ID	**Emission Unit Description**	**Rule 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]
See below			

Comments:

See attached Form AI-Part D:

SUPPLEMENTAL TABLE FOR ROP RENEWAL - General Motors Warren Technical Center

☒ Check here if an AI-001 Form is attached to provide more information for Part D. Enter AI-001 Form ID: **AI-**PART D

SRN: B4049	Section Number (if applicable):

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the existing ROP and answer the questions below as they pertain to **all** emission units and **all** applicable requirements in the existing ROP.

E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? If Yes, identify changes and additions on Part F, Part G and/or Part H.	☒ Yes ☐ No
E2. For each emission unit(s) identified in the existing ROP, all stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If Yes, complete Part F with the appropriate information.	☐ Yes ☒ No
E4. Have any emission units identified in the existing ROP been dismantled? If Yes, identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	☒ Yes ☐ No

Comments:

Removed FGBOILERSCL (Climactic Wind Tunnel Boilers) and emission units EUBOILER1CL and EUBOILER2CL, Decommissioned and demolished October 2022

Removed Underground Storage Tanks – EU-GTCL3, EU-GTCL4, and EU-GTCL5, Decommissioned and removed from ground April 2020

Remove EU-R287-BLDG106 (Research Metallurgy Lab Foundry spray booth, removed 2016)
Remove EU-R287-BLDG207 (Stress Coat Booth, removed 2009; Engine Cutaway Booth, removed 2017)

Remove EU-EMGEN102 (old Research Engineering Lab; out of service November 2018; building demolished and generator removed December 2021)

Remove EU-EMGEN202.5 (7000 Building; out of service and fuel tank physically removed November 2018)

☐ Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: **AI-**

SRN: B4049	Section Number (if applicable):

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with PTIs. Any PTI(s) identified below must be attached to the application.

F1. Has the source obtained any PTIs where the applicable requirements from the PTI have not been incorporated into the existing ROP? If Yes, complete the following table. If No, go to Part G. ☒ Yes ☐ No

Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (*Include Process Equipment, Control Devices and Monitoring Devices*)	Date Emission Unit was Installed/ Modified/ Reconstructed
46-20	FGBATTERY: EUHIGHBAY EULOWBAY	Battery thermal testing areas	9/15/2020
4-23	FG-DRUPS7&8: EUDRUPS7 EUDRUPS8	Two (2) 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engines.	DRUPS7: January 2, 2024 DRUPS8: TBD

F2. Do any of the PTIs listed above change, add, or delete terms/conditions to **established emission units** in the existing ROP? If Yes, identify the emission unit(s) or flexible group(s) affected in the comments area below or on an AI-001 Form and identify all changes, additions, and deletions in a mark-up of the existing ROP. ☐ Yes ☒ No

F3. Do any of the PTIs listed above identify **new emission units** that need to be incorporated into the ROP? If Yes, submit the PTIs as part of the ROP renewal application on an AI-001 Form, and include the new emission unit(s) or flexible group(s) in the mark-up of the existing ROP. ☒ Yes ☐ No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identity the stack(s) that were not reported on the applicable MAERS form(s). ☒ Yes ☐ No

F5. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs listed above for any emission units not already incorporated into the ROP? If Yes, describe the changes on an AI-001 Form. ☐ Yes ☒ No

Comments:
See Form AI-Part F, PTI to Roll In to ROP

☒ Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: **AI-**PARTF

SRN: B4049	Section Number (if applicable):

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.

If Yes, identify the emission units in the table below. If No, go to Part H. ☒ Yes ☐ No

Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	**Emission Unit Description – *Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices***	**Date Emission Unit was Installed/ Modified/ Reconstructed**
☐ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
☒ Rule 287(2)(c) surface coating line	See attached AI-PART G Supplemental Table	
☐ Rule 290 process with limited emissions		

Comments:

☒ Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: **AI-**PARTG

SRN: B4049	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If Yes, answer the questions below.	☒ Yes	☐ No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If Yes, describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	☐ Yes	☒ No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If Yes, identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	☒ Yes	☐ No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If Yes, on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify each state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	☐ Yes	☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If Yes, list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	☐ Yes	☒ No
H6. Does the source propose to add, change and/or delete **source-wide** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	☒ No
H7. Are you proposing to **streamline** any requirements? If Yes, identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	☐ Yes	☒ No

SRN: B4049	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete **emission limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H9. Does the source propose to add, change and/or delete **material limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

See PTI 46-20 for material limits related to FGBATTERY.

H10. Does the source propose to add, change and/or delete **process/operational restriction** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H11. Does the source propose to add, change and/or delete **design/equipment parameter** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H12. Does the source propose to add, change and/or delete **testing/sampling** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H13. Does the source propose to add, change and/or delete **monitoring/recordkeeping** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Remove M/R requirements for decommissioned units of EU-BOILER1CL and BOILER2CL (FG-BOILERSCL).

H14. Does the source propose to add, change and/or delete **reporting** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Remove reporting requirements for decommissioned units of EU-BOILER1CL and BOILER2CL (FG-BOILERSCL).

See PTI 2-23 VII.2 for reporting requirements.

SRN: B4049	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15. Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☒ No

See PTI 46-20 and PTI 2-23 for stack information.

H16. Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Roll in PTI requirements from PTI 46-20 and 2-23 as noted in Part F.

H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**

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RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: B4049	Section Number (if applicable):

1. Additional Information ID
AI-PARTC

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Part C Section C4 and C5 - Potential to Emit:

See attached Sitewide Potential to Emit (PTE) Summary Table for Criteria Pollutants

Based on the changes to emergency engines, boilers and the added PTIs, the potential to emit for hazardous air pollutants (HAPs) remains more than the major source threshold of 10 tons per year for a single HAP and 25 tons per year for aggregate HAPs.

Warren Technical Center
2024 ROP RENEWAL PTE CALCULATION
REVISION DATE: 01-31-2024
REVISED BY: M. Perko, WTC Enviro. Engineer

General Motors LLC

Warren Technical Center Potential to Emit (PTE) Rollup Table

Line Number	Emission Source	Total Fuel Consumption for Source Group	Units of Fuel Consumption	Total Annual Potential Emissions (tons)					
				SO2	NOx	CO	PM10	PM2.5	VOC
1	Boilers	411.24	MMBTU/Hr	1.08	71.45	148.42	13.51	13.51	9.01
2	Water Heating Boilers (Non-Boiler MACT)	47.9	MMBTU/Hr	0.13	20.56	17.29	1.57	1.57	1.05
3	Roof Top Units (RTU)	25.9	MMBTU/Hr	0.07	11.11	9.34	0.85	0.85	0.57
4	Heating Units (HUs)	35.6	MMBTU/Hr	0.09	15.28	12.85	1.17	1.17	0.78
5	Air Handling Units (AHUs)	57.2	MMBTU/Hr	0.15	24.55	20.64	1.88	1.88	1.25
6	Make-Up Air Units	2.8	MMBTU/Hr	0.01	1.20	1.01	0.09	0.09	0.06
7	Gas Water Heaters	3.6	MMBTU/Hr	0.01	1.55	1.30	0.12	0.12	0.08
8	Misc. Unit (Snow Melter)	9.3	MMBTU/Hr	0.02	3.99	3.36	0.31	0.31	0.20
9	Natural Gas RICE Engines (Emergency Gen)	24.6	MMBTU/Hr	0.00	3.87	7.74	0.12	0.12	1.93
10	Diesel RICE Engines (Emergency Gen/Fire Pump)	487.0	MMBTU/Hr	35.65	114.93	99.60	5.75	5.75	43.66
11	FG-WoodMetal	N/A	N/A				167.54	167.54	
12	FG-Rule 287(c) Coating Operations	N/A	N/A				0.83	0.83	121.19
13	EU-VVO-PPO	N/A	N/A						36.00
14	FG-BATTERY Estes Battery Lab - PTI 46-20	N/A	N/A	1.32	0.98	5.24	2.86	2.86	3.41
15	Rule 290 Sources Gasoline Tank Purge Systems	N/A	N/A						0.24
16	FG-GASTANKSGasoline Storage ASTs	N/A	N/A						0.002
17	Wallace Battery Lab (Building 130)	N/A	N/A						10.43
				SO2	NOx	CO	PM10	PM2.5	VOC
			Total Emissions (tons)	38.54	269.47	326.79	196.59	196.59	229.86

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RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: B4049	Section Number (if applicable):

1. Additional Information ID
AI-PART D

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Supplemental table for Part D: Permit to Install (PTI) Exempt Emission Unit Information is found on the following pages.

FORM AI-PART D

SUPPLEMENTAL TABLE FOR ROP RENEWAL - General Motors Warren Technical Center

Emission Unit ID	**Emission Unit Description**	**Rule 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]
BOILERS			
EU-BOILER-3CL, -4 CL, and -5CL	Three natural gas-fired boilers each with a rated heat input capacity of 5.278 MMBTU/Hr, located at Building 105 and started up in February 2023	212(4)(c)	282(2)(b)(i)
EU-MISCBOILER108 (1-2)	Two natural gas-fired boilers each with a rated heat input capacity of 3.5 MMBTU/Hr. located at Building 108. BOILER108-1 started up in January 2023 and BOILER108-2 started up in August 2023.	212(4)(c)	282(2)(b)(i)
EU-MISCBOILER DESIGN(1-3)	Three Natural Gas Boilers, startup Aug. 2022; 2.78 MMBTU/Hr each	212(4)(c)	282(2)(b)(i)
EU-MISCBOILER BLDG130(1-6)	Six Natural Gas Boilers, startup May 2022; 4.99 MMBTU/Hr each	212(4)(c)	282(2)(b)(i)
BULK GASES			
EU-BULKGAS-111-ARGON	Approx. 2500 gallon liquid volume bulk argon storage tank at Building 111	212(4)(d)	282(4)(j)
EU-BULKGAS-111-NITROGEN	Approx. 3000 gallon liquid volume bulk nitrogen storage tank at Building 111	212(4)(d)	282(4)(j)
EU-BULKGAS-109-NITROGEN	Approx. 1500 gallon liquid volume bulk nitrogen storage tank at Building 109	212(4)(d)	282(4)(j)
EU-BULKGAS-301-OXYGEN	Approx. 1500 gallon liquid volume bulk oxygen storage tank at Building 109	212(4)(d)	282(4)(j)
EU-BULKGAS-106-NITROGEN	Approx. 11000 gallon liquid volume bulk nitrogen storage tank at Building 106	212(4)(d)	282(4)(j)
ENGINES – COMPRESSION IGNITION			
EU-EMGEN106.3	One 402 HP diesel fueled emergency generator engine, installed August 2022, located at Building 106	212(4)(e)	285(2)(g)
EU-EMGEN111	One 173 HP diesel fueled emergency generator engine, installed in February 2020 and located at Building 111	212(4)(e)	285(2)(g)
EU-EMGEN130-FIREPUMP	One 237 HP diesel fueled fire pump engine, installed July 2022, at Building 130	212(4)(e)	285(2)(g)
EU-EMGEN130-EMER	One 729 HP diesel fueled emergency generator engine, installed July 2022, at Building 130	212(4)(e)	285(2)(g)

EU-207FIREPUMP1 and EU-207FIREPUMP2	Two 242 HP diesel fueled emergency fire pump engines, installed November 2022, at Building 207	212(4)(e)	285(2)(g)
ENGINES – SPARK IGNITION			
EU-EMGEN113-NORTHROOF and EU-EMGEN113-SOUTHROOF	Two 205 HP natural gas fueled emergency generator engines, installed April 2022, at Building 113.	212(4)(e)	285(2)(g)
FUEL TANKS			
EU-BLDG105-AST1 and AST-2	Two 4000-gallon gasoline AST, installed April 2020, at Building 105	212(4)(d)	282(4)(g)
287(2)(c) EXEMPT SURFACE COATING OPERATIONS			
EU-R287-BLDG205BODY	One body shop sealant operation located in Building 205. Commenced operation in January 2022.	212(3)(h)	287(2)(c)
EU-R287-BLDG301WINDOW	One window glass sealant operation located in Building 301. Commenced operation in January 2022.	212(3)(h)	287(2)(c)
EU-R287-BLDG301DEADENER	One body foam deadener installation operation located in Building 301. Commenced operation in January 2022.	212(3)(h)	287(2)(c)

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: B4049	Section Number (if applicable):

1. Additional Information ID
AI-PART F

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Two PTI are to be rolled in to the ROP. The following PTI numbers are attached on the following pages:

PTI 46-20: Adds emission units EUHIGHBAY and EULOWBAY and flexible group FGBATTERY
PTI 2-23: Adds emission units EU-DRUPS7 and EU-DRUPS8 and flexible group FG-DRUPS7&8

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

June 17, 2020

PERMIT TO INSTALL
46-20

ISSUED TO
General Motors, LLC – Global Technical Center

LOCATED AT
31295 Charles Kettering Road

IN THE COUNTY OF
Macomb

STATE REGISTRATION NUMBER
B4049

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **April 16, 2020**	
DATE PERMIT TO INSTALL APPROVED: **June 17, 2020**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_2S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO_x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO_2	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUHIGHBAY	Large area for thermal testing of battery cells, modules or packs. Controlled by baghouse in series with a HEPA filter	TBD	FGBATTERY
EULOWBAY	Small area for thermal testing of battery cells, modules or packs. Controlled by baghouse in series with a HEPA filter	TBD	FGBATTERY

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGBATTERY	Battery Thermal testing areas	EUHIGHBAY, EULOWBAY

FGBATTERY
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Battery Thermal Testing Areas

Emission Unit: EUHIGHBAY, EULOWBAY

POLLUTION CONTROL EQUIPMENT

Baghouse followed in series by HEPA filter that controls one bay at a time

I. EMISSION LIMIT(S)

1. Visible emissions from FGBATTERY shall not exceed a six-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27% opacity during a thermal test. **(R 336.1301)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Cells Tested	1,833	Monthly as determined at the end of a calendar month	EUHIGHBAY	SC VI.1	R 336.1205(1)(a), R 336.1225
2. Cells Tested	22,000	12-month rolling average, as determined at the end of each calendar month	EUHIGHBAY	SC VI.1	R 336.1205(1)(a), R 336.1225
3. Cells Tested	125	Monthly, as determined at the end of a calendar month	EULOWBAY	SC VI.1	R 336.1205(1)(a), R 336.1225
4. Cells Tested	1,500	12-month rolling average, as determined at the end of each calendar month	EULOWBAY	SC VI.1	R 336.1205(1)(a), R 336.1225

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall, only operate one bay at a time during thermal testing. The permittee shall not operate EUHIGHBAY and EULOWBAY within FGBATTERY simultaneously during thermal testing. **(R 336.1205)**

2. Until the baghouse followed in series with HEPA filter is installed, the permittee may test up to two cells at a time as long as the facility complies with SC I.1, The total cells tested over this interim timeframe shall not exceed 20 cells. The permittee shall perform visual observations during each thermal test. **(R 336.1205)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Once the baghouse followed in series with HEPA filter is installed, the permittee shall not perform thermal testing in any testing bay within FGBATTERY unless the baghouse followed in series with HEPA filter is maintained and operated in a satisfactory manner. **(R 336.1205(1)(a), R 336.1910)**

2. The permittee shall have a method to monitor a test when conducting a thermal test until the fire is completely extinguished. **(R 336.1205, R 336.1224, R 336.1225)**

3. The permittee shall have a method to record the number of cells tested in each testing bay within FGBATTERY on a monthly basis. **(R 336.1205(1)(a))**

V. TESTING/SAMPLING

1. The permittee shall perform visible emission observations during a thermal test at least once a month for each testing bay while thermal testing in being conducted within FGBATTERY. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall immediately inspect the baghouse and perform any required maintenance. Visible observations are not required for a testing area if thermal testing is not performed in that respective area during the month. **(R 336.1301, R 336.1303)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, records of number of cells, modules and packs used during thermal testing on a monthly and 12-month rolling time period per emission unit as determined by the last day of the calendar month, for the previous calendar month. The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a))**

2. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for FGBATTERY. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1303)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVHIGHBAY	44	62	R 336.1225

IX. OTHER REQUIREMENT(S)

1. Within 60 days of issuance of this permit, the permittee shall label the EUHIGHBAY and EULOWBAY according to a method acceptable to the AQD District Supervisor. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed. **(R 336.1201)**

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

January 11, 2023

PERMIT TO INSTALL
2-23

ISSUED TO
General Motors Warren Technical Center

LOCATED AT
31295 Charles Kettering Road
Warren, Michigan 48092

IN THE COUNTY OF
Macomb

STATE REGISTRATION NUMBER
B4049

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **December 9, 2022**	
DATE PERMIT TO INSTALL APPROVED: **January 11, 2023**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS

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COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
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FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_2S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO_x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO_2	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EU-DRUPS7	A 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 10 liters/cylinder.	FG-DRUPS7&8
EU-DRUPS8	A 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 10 liters/cylinder.	FG-DRUPS7&8

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-DRUPS7&8	Two (2) 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engines.	EU-DRUPS7, EU-DRUPS8

FG-DRUPS7&8
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two (2) 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engines.

Emission Unit ID: EU-DRUPS7, EU-DRUPS8

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr	Hourly[A]	Each engine in FG-DRUPS7&8	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202, Table 2 of Appendix I of 40 CFR 1039
2. CO	3.5 g/kW-hr	Hourly[A]	Each engine in FG-DRUPS7&8	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202, Table 2 of Appendix I of 40 CFR 1039
3. PM	0.20 g/kW-hr	Hourly[A]	Each engine in FG-DRUPS7&8	SC V.1 SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202, Table 2 of Appendix I of 40 CFR 1039

g/kW-hr = grams per kilowatt-hour

[A]These emission limits are for certified engines; if testing becomes required to demonstrate compliance, then the tested values must be compared to the Not to Exceed (NTE) requirements determined through 40 CFR 60.4212(c).

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine in FG-DRUPS7&8 with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(R 336.1205(1)(a) and (3), 40 CFR 60.4207, 40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each engine in FG-DRUPS7&8 for more than 8 hours per day, except during emergency conditions, or the required stack testing in SC V.1. The permittee shall not operate each engine in FG-DURPS7&8 more than 141 hours per year based on a 12-month rolling time period as determined at the end of each calendar month. The 141 hours includes the hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2. **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804)**

2. The permittee may operate each engine in FG-DRUPS7&8 for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator

maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2))**

3. The permittee may operate each engine in FG-DRUPS7&8 up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted as part of the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 60.4211(f)(3))**

4. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for each engine in FG-DRUPS7&8:

   a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,

   b) Change only those emission-related settings that are permitted by the manufacturer, and

   c) Meet the requirements as specified in 40 CFR 1068, as they apply to the engine.

   If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine. **(40 CFR 60.4211(a) & (c))**

5. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for each engine in FG-DRUPS7&8 and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4211(g)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG-DRUPS7&8 with non-resettable hours meter to track the operating hours. **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 60.4209)**

2. The maximum rated power output of each engine in FG-DRUPS7&8 shall not exceed 4,680 HP (3,490 kilowatts (kW)), as certified by the equipment manufacturer. **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 60.4202, 40 CFR 60.4205, 40 CFR 1039)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. If any engine in FG-DRUPS7&8 is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:

   a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

   b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212.

   c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years thereafter, whichever comes first, to demonstrate compliance with the applicable emission standards.

   No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(40 CFR 60.4211(g)(3), 40 CFR 60.4212)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a)&(3), R 336.1225, 40 CFR Part 60, Subpart IIII)**

2. The permittee shall keep, in a satisfactory manner, the following records for each engine in FG-DRUPS7&8:

   a) For each certified engine: The permittee shall keep records of the manufacturer certification documentation.

   b) For each uncertified engine: The permittee shall keep records of testing required in SC V.1.

   The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

3. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine in FG-DRUPS7&8:

   a) For each certified engine: The permittee shall keep records of the manufacturer's emission-related written instructions, and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.4.

   b) For each uncertified engine: The permittee shall keep records of a maintenance plan, as required by SC III.5, and maintenance activities.

   The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

4. The permittee shall monitor and record, the total hours of operation for each engine in FG-DRUPS7&8 on a daily, monthly and 12-month rolling time period basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FG-DRUPS7&8, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of each engine in FG-DRUPS7&8, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(R 336.1205(1)(a) & (3), 40 CFR 60.4211, 40 CFR 60.4214)**

5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for diesel fuel oil used in FG-DRUPS7&8, demonstrating that the fuel meets the requirement of 40 CFR 1090.305. The certification or test data shall include the name of the fuel supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. **(R 336.1205(1)(a) & (3), 40 CFR 60.4207(b), 40 CFR 1090.305)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of each engine of FG-DRUPS7&8. **(R 336.1201(7)(a))**

2. The permittee shall submit a notification specifying whether each engine of FG-DRUPS7&8 will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(40 CFR Part 60, Subpart IIII)**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-DRUPS7	156	36	R 336.1225, R 336.2803, R 336.2804
2. SV-DRUPS8	156	36	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to each engine of FG-DRUPS7&8. **(40 CFR Part 60, Subparts A & IIII, 40 CFR 63.6590(c))**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to each engine of FG-DRUPS7&8. **(40 CFR Part 63, Subparts A & ZZZZ, 40 CFR 63.6585)**

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: B4049	Section Number (if applicable):

1. Additional Information ID
AI-PART G

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

See the attached table for information on new 287(2)(c) surface coating operations

FORM AI-PART G

SUPPLEMENTAL TABLE FOR NEW 287(2)(c) EXEMPT SURFACE COATING OPERATIONS

Emission Unit ID	**Emission Unit Description**	**Rule 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]
287(2)(c) EXEMPT SURFACE COATING OPERATIONS			
EU-R287-BLDG205BODY	One body shop sealant operation located in Building 205. Commenced operation in January 2022.	212(3)(h)	287(2)(c)
EU-R287-BLDG301WINDOW	One window glass sealant operation located in Building 301. Commenced operation in January 2022.	212(3)(h)	287(2)(c)
EU-R287-BLDG301DEADENER	One body foam deadener installation operation located in Building 301. Commenced operation in January 2022.	212(3)(h)	287(2)(c)

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

EFFECTIVE DATE: October 16, 2019
REVISION DATE: February 24, 2022

ISSUED TO

General Motors LLC – Warren Technical Center

State Registration Number (SRN): B4049

LOCATED AT

31295 Charles Kettering, Warren, Michigan 48092

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B4049-2019a

Expiration Date: October 16, 2024

Administratively Complete ROP Renewal Application
Due Between April 16, 2023 and April 16, 2024

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B4049-2019a

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

_____
Joyce Zhu, Warren District Supervisor

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AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined, subsumed and/or is state-only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).[2] **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"[2] **(R 336.1301(1))**
    a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).[2] **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than five years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604/3507. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.[2] **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
    d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

37. If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.[2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.[2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.[2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

At the time of the ROP issuance, the AQD has determined that there are no additional specific source-wide applicable requirements which apply to all emissions unit/process groups at this stationary source. Therefore, the permittee is subject to the General Requirements in Part A and any other terms and conditions contained in this ROP.

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-VVO	Vehicle Validation operation located at Building 205. Validates both the equipment that will be used in actual assembly line and the operating parameters of the equipment. Miscellaneous solvents are used for wiping, purging, and associated cleaning activities. The process includes conventional cleaning, coating, curing, and assembly. One paint spray booth installed.	07-11-2005	NA
EU-COLDCLNR	New cold solvent cleaners exempt from Rule 201 pursuant to Rule 278 and Rule 281(2)(h) or Rule 285(2)(r)(iv).	After 07-01-1979	FG-COLDCLNRS
~~EU-GTCL3~~	~~2,500 gallon gasoline UST 3, dispensing to chassis dynamometers; Building 105.~~	~~01-01-1998~~	~~FG-GASTANKS~~
~~EU-GTCL4~~	~~2,500 gallon gasoline UST 4, dispensing to chassis dynamometers; Building 105.~~	~~01-01-1998~~	~~FG-GASTANKS~~
~~EU-GTCL5~~	~~5,000 gallon salvage fuel UST 5; located at Building 105.~~	~~01-01-1998~~	~~FG-GASTANKS~~
EU-BLDG105-AST(1-2)	Two 4000-gallon gasoline AST, installed April 2020, at Building 105	04-2020	FG-GASTANKS
EU-WOODSHOP	Wood machining units.	After 08-15-1967	FG-WOODMETAL
EU-GRINDER	Machining/grinding/ sanding operations.	After 08/15/1967	FG-WOODMETAL
EU-BLASTER	Sandblasters/shotblasters.	After 08-15-1967	FG-WOODMETAL
EU-R287-BLDG101	One coating line (Maintenance/Site Operations) located in Building 101. Subject to Part 6 and 7 Rules.	01-01-1970/ 01-01-2000	FG-RULE287C

Commented [MP1]: UST EU-GTCL3, -CL4, and -CL5 were removed in April 2020 and replaced with ASTs noted below.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-R287-BLDG108	One coating line (Coatings Lab) located in Building 108. Emissions from the Coatings Lab are controlled by downdraft water wash system.	01-01-1970/ 01-01-2000	FG-RULE287C
EU-R287-BLDG113	Nine (9) coating/paint spray booths (Nos. 36, 37, 41, 42, 43, 44, 45, Plaster 12/Parting, and Plaster12/Paint) located in Building 113. Particulate emissions are controlled using dry filters.	01-01-1970/ 01-01-2000	FG-RULE287C
EU-R287-BLDG105	One coating/paint spray booth (Garage) located in Building 105.	01-01-1970/ 01-01-2000	FG-RULE287C
EU-R287-BLDG109	Two (2) coating/paint spray booths (DQ&V/IAH13 and GAC Lab Weld) located in Building 109.	01-01-1970/ 01-01-2000	FG-RULE287C
EU-R287-BLDG 111	One coating/paint spray booth (West Shop) located in Building 111.	01-01-1970/ 01-01-2000	FG-RULE287C
EU-R287-BLDG114	One coating/paint spray booth (Refinish L3 Body) located in Building 114.	01-01-1970/ 01/-01-2000	FG-RULE287C
EU-R287-BLDG204	One coating/paint spray booth (Refinish L3 Body) located in Building 204. Subject to Part 6 and 7 Rules.	01-01-1970/ 01-01-2000	FG-RULE287C
EU-R287-BLDG205BODY	One body shop sealant operation located in Building 205.	01-2022	FG-RULE287C
EU-R287-BLDG301WINDOW	One window glass sealant operation located in Building 301.	01-2022	FG-RULE287C
EU-R287-BLDG301DEADENER	One body foam deadener installation operation located in Building 301.	01-2022	FG-RULE287C
~~EU-R287-BLDG207~~	~~Two coating/paint spray booths (Engine Cut Away and Stress Coat/L502) located in Building 207.~~	~~01-01-1970/ 01-01-2000~~	~~FG-RULE287C~~
EU-R287-BLDG208	One coating/paint spray booth (Performance Garage) located in Building 208.	01-01-1970/ 01-01-2000	FG-RULE287C
EU-R287-BLDG210	One coating/paint spray booth (West/Truck Mockup) located in Building 210 (West).	01-01-1970/ 01-01-2000	FG-RULE287C
EU-R287-BLDG301	One coating/paint spray booth (Spray Booth and Floor) located in Building 301. Coatings are applied using aerosol cans.	01-01-1970/ 01-01-2000	FG-RULE287C
~~EU-R287-BLDG106~~	~~One coating/paint sprays booth (RML Foundry) located in Building 106.~~	~~01-01-1970/ 01-01-2000~~	~~FG-RULE287C~~

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Commented [MP2]: Removed - Engine Cutaway – Last used in 2017
Removed - Stress Coat – Last used 2009

Commented [MP3]: Removed – RML Foundry - Last used in 2016

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-PS302	Gas tank purge system located at Building 302.	12-31-1999	FG-RULE290
EU-PS111	Gas tank purge system located at Building 111.	01-01-1990	FG-RULE290
EU-EMGEN101	One natural gas-fueled, 530 HP emergency generator engine manufactured by Cummins and located at Building 101.	04-2017	FG-SUBPARTJJJJ
~~EU-EMGEN102~~	~~One gasoline-fueled, 114 HP emergency generator engine manufactured by Onan and located at Building 102.~~	~~Estimated 1977~~	~~FG-RICEMACT~~
EU-EMGEN106.1	One diesel-fueled, 685 HP, 511 kW, <10 L/cylinder displacement emergency generator engine manufactured by Detroit Diesel and located at Building 106.	06-2007	FG-SUBPARTIIII
EU-EMGEN106.2	One diesel-fueled, 600 HP,448 kW, <10 L/cylinder displacement emergency generator engine manufactured by MTU and located at Building 106.	02-2016	FG-SUBPARTIIII
EU-EMGEN107	60kW (80.5 HP) natural gas-fired spark ignited emergency generator and located at Building 107.	03-2017	NA
EU-EMGEN108	One natural gas-fueled, 691 HP, 515 kW emergency generator engine manufactured by Caterpillar and located at Building 108.	Mfg. Date: 10-2008	FG-SUBPARTJJJJ
EU-EMGEN111	One diesel-fueled, 173 HP emergency generator manufactured by Cummins and located at Building 111	Mfg. Date: 09-2019 Install Date: 02-2020	FG-SUBPARTIIII
EU-EMGEN115	One diesel-fueled, 130 HP emergency generator engine manufactured by Detroit Diesel and located at Building 115.	1997	FG-RICEMACT
EU-ENGINE7000BLDG202	One 1,099 kW, 1,474 bhp, diesel-fueled emergency engine manufactured in 2012 and located at Building 202.	05-16-2013	NA
EU-EMGEN202.2	One diesel-fueled, 1495 HP, 1115 kW, <10 L/cylinder displacement emergency generator engine manufactured by MTU Detroit Diesel and located at Building 202.	Install Date: 2008	FG-SUBPARTIIII
EU-EMGEN202.3	One diesel-fueled, 1495 HP, 1115 kW, <10 L/cylinder displacement emergency generator engine manufactured by Detroit Diesel and located at Building 202.	Mfg. Date: 2000	FG-RICEMACT

Commented [MP4]: Removed – Fuel removed 11/21/2018; demolished to clear for new construction, December 2021

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-EMGEN202.4	One natural gas-fueled, 671 HP, 500 kW emergency generator engine manufactured by Onan-Cummins and located at Building 202.	Mfg. Date: 03-2004	FG-RICEMACT
~~EU-EMGEN202.5~~	~~One diesel-fueled, 630 HP, 1115 kW, <10 L/cylinder displacement emergency generator engine manufactured by Detroit Diesel and located at Building 202.~~	~~Estimated: 1986~~	~~FG-RICEMACT~~
EU-GENERATOR1	Diesel-fueled emergency generator engine, Model year 2012, 2710 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR). No add-on control. Located at Building 206.	Mfg. Date: 2011 Install Date: 11-2012	FG-BACKUPGENSBLD206
EU-GENERATOR2	Diesel-fueled emergency generator engine, Model year 2012, 2710 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR). No add-on control. Located at Building 206.	Mfg. Date: 2011 Install Date: 11-2012	FG-BACKUPGENSBLD206
EU-GENERATOR3	Diesel-fueled emergency generator engine, Model year 2014 and greater, 2710 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR). No add-on control. Located at Building 206.	Mfg. Date: 2015 Install Date: 02-2016	FG-BACKUPGENSBLD206
EU-GENERATOR4	Diesel-fueled emergency generator engine, Model year 2014 and greater, 2710 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR). No add-on control. Located at Building 206.	Mfg. Date: 2015 Install Date: 02-2016	FG-BACKUPGENSBLD206
EU-DRUPS1	Diesel-fueled emergency generator engine, Model year 2011, 3490 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR), part of a DRUPs system. No add-on control. Located at Building 206.	Mfg. Date: 12-2011 Install Date: 11-2012	FG-BACKUPGENSBLD206
EU-DRUPS2	Diesel-fueled emergency generator engine, Model year 2011, 3490 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR), part of a DRUPs system. No add-on control. Located at Building 206.	Mfg. Date: 08-2012 Install Date: 05-2013	FG-BACKUPGENSBLD206

Commented [MP5]: Taken out of service in 2018. Fuel tank is physically removed.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-DRUPS3	Diesel-fueled emergency generator engine, Model year 2012, 3490 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR), part of a DRUPs system. No add-on control. Located at Building 206.	Mfg. Date: 03-2015 Install Date: 02-2016	FG-BACKUPGENSBLD206
EU-DRUPS4	Diesel-fueled emergency generator engine, Model year 2012, 3490 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR), part of a DRUPs system. No add-on control. Located at Building 206.	Mfg. Date: 12-2011 Install Date: 11-2012	FG-BACKUPGENSBLD206
EU-DRUPS5	Diesel-fueled emergency generator engine, Model year 2014 and greater, 3490 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR), part of a DRUPs system. No add-on control. Located at Building 206.	Mfg. Date: 08-2012 Install Date: 05-2013	FG-BACKUPGENSBLD206
EU-DRUPS6	Diesel-fueled emergency generator engine, Model year 2014 and greater, 3490 kW and displacement <10 liters per cylinder, designed with injection timing retardation (ITR), part of a DRUPs system. No add-on control. Located at Building 206.	Mfg. Date: 03-2015 Install Date: 02-2016	FG-BACKUPGENSBLD206
EU-DRUPS7	A 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 10 liters/cylinder.	Install Date: 01-2024	FG-DRUPS7&8
EU-DRUPS8	A 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engine with a model year of 2011 or later, and a displacement of less than 10 liters/cylinder.	Install Date: TBD – 2024	FG-DRUPS7&8
EU-EMGEN207	One natural gas-fired, 132 HP emergency generator engine manufactured by Cummins and located at Building 207.	05-2019	FG-SUBPARTJJJJ
EU-EMGEN210.1	A 2000 kW, 2682 HP, diesel-fueled emergency engine manufactured in 2001. Located at Building 210. (This engine is an "affected source" under NESHAP ZZZZ but has no requirements if it is operated as an emergency engine per 40 CFR 63.6590(b)(3)(iii)).	2001	FG-GENERATORSBLDG210

Commented [MP6]: Update this date after pending install in Q1 2024

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-EMGEN210.2	A 2000 kW, 2682 HP, diesel-fueled emergency engine manufactured in 2001. Located at Building 210. (This engine is an "affected source" under NESHAP ZZZZ but has no requirements if it is operated as an emergency engine per 40 CFR 63.6590(b)(3)(iii)).	2001	FG-GENERATORSBLDG210
EU-EMGEN207	One diesel-fueled, 268 HP emergency generator engine manufactured by Detroit Diesel and located at Building 207.	Estimated: 1999	FG-RICEMACT
EU-EMGEN210.3	One diesel-fueled, 1502 HP emergency generator engine manufactured by Detroit Diesel and located at Building 210.	Mfg. Date: 06-2002 Install Date: 2002	FG-RICEMACT
EU-EMGEN219	One diesel-fueled, 69 HP, 51 kW, <10 L/cylinder displacement emergency generator engine manufactured by Cummins and located at Building 219. (This engine is an "affected source" under NESHAP ZZZZ but has no requirements per 40 CFR 63.6590(c)(7)).	Install Date: 08-2017	FG-SUBPARTIIII
EU-EMGEN501.2	One diesel-fueled,680 HP, 507 kW emergency engine with <10 L/cylinder displacement, manufactured by Cummins and located at Building 501.	Mfg. Date: 07-2015 Install Date: 05-2015	FG-SUBPARTIIII
EU-EMGEN501.3	One diesel-fueled, 755 HP emergency generator engine with <10 L/cylinder displacement, manufactured by Cummins and located at Building 501.	02-16-2019	FG-SUBPARTIIII
EU-EMGEN129	One natural gas-fueled, 125 kW emergency generator engine manufactured by Cummins.	Mfg. Date: 02-2018 Install Date: 07-2018	FG-SUBPARTJJJJ
EU-EMGEN221	One natural gas-fueled, 150 kW emergency generator engine manufactured by Cummins.	Mfg. Date: 09-2017 Install Date: 07-2018	FG-SUBPARTJJJJ
EU-EMGEN106.3	One 402 HP diesel fueled emergency generator engine manufactured by Caterpillar, located at Building 106	Install Date: 08-2022	FG-SUBPARTIIII
EU-EMGEN130-FIREPUMP	One 237 HP diesel fueled fire pump engine manufactured by John Deere, located at Building 130	Mfg. Date: 2021 Install Date 07-2022	FG-SUBPARTIIII

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-EMGEN130-EMER	One 755 HP diesel fueled emergency generator engine manufactured by Cummins at Building 130	Mfg. Date: 05-2022 Install Date: 07-2022	FG-SUBPARTIIII
EU-EU-207FIREPUMP1 and EU-207FIREPUMP2	Two 242 HP diesel fueled emergency fire pump engines manufactured by Clarke at Building 207	Mfg. Date: 06-2022 Install Date: 11-2022	FG-SUBPARTIIII
EU-EMGEN113-NORTHROOF and -SOUTHROOF	Two 205 HP natural gas fueled emergency generator engines at Building 113	Mfg. Date: 2019 Install Date: 05-2022	FG-SUBPARTJJJJ
~~EU-BOILER1CL~~	~~Climatic Boiler 1 is an existing natural gas-fired with rated capacity of 12.5 MMBtu/hour.~~	~~09-14-1998~~	~~FG-BOILERSCL FG-BOILERMACT~~
~~EU-BOILER2CL~~	~~Climatic Boiler 2 is anexisting natural gas-fired with rated capacity of 12.5 MMBtu/hour.~~	~~09-15-1998~~	~~FG-BOILERSCL FG-BOILERMACT~~
EU-Boiler1-107	Natural gas-fired boiler with a maximum nameplate heat input capacity of 108 MMBtu/hour, low NOx burner, and flue gas recirculation.	11-07-2017	FG-BOILERSBLDG107
EU-Boiler2-107	Natural gas-fired boiler with a maximum nameplate heat input capacity of 108 MMBtu/hour, low NOx burner, and flue gas recirculation.	10-20-2017	FG-BOILERSBLDG107
EU-Boiler3-107	Natural gas-fired boiler with a maximum nameplate heat input capacity of 108 MMBtu/hour low NOx burner, and flue gas recirculation.	09-27-2017	FG-BOILERSBLDG107
EU-MISCBOIL7000(1-3)	Three natural gas-fired boilers each with a rated heat input capacity of 3.3 MMBtu/hour and located in building 202.	10-01-2018	FG-BOILERMACT
EU-MISCBOILGAE(1-2)	Two natural gas-fired boilers each with a rated heat input capacity of 2.36 MMBtu/hour and located in building 203.	10-18-2017	FG-BOILERMACT
EU-MISCBOILMTS(1-2)	Two natural gas-fired boilers each with a rated heat input capacity of 6 MMBtu/hour and located in building 301.	2012	FG-BOILERMACT
EU-BOILER-3CL	A natural gas-fired boiler with a rated heat input capacity of 5.278 MMBTU/Hr, located at Building 105.	02-2023	FG-BOILERMACT
EU-BOILER-4CL	A natural gas-fired boiler with a rated heat input capacity of 5.278 MMBTU/Hr, located at Building 105.	02-2023	FG-BOILERMACT

Commented [MP7]: Remove Boiler1CL and Boiler2CL. Last used 10/2020 and replaced with smaller units noted below.

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-BOILER-5CL	A natural gas-fired boiler with a rated heat input capacity of 5.278 MMBTU/Hr, located at Building 105.	02-2023	FG-BOILERMACT
EU-MISCBOILER108 (1)	A natural gas-fired boiler with a rated heat input capacity of 3.5 MMBTU/Hr. located at Building 108.	01-2023	FG-BOILERMACT
EU-MISCBOILER108 (2)	A natural gas-fired boiler with a rated heat input capacity of 3.5 MMBTU/Hr. located at Building 108.	08-2023	FG-BOILERMACT
EU-MISCBOILER DESIGN(1-3)	Three natural gas-fired boilers, with a rated heat input capacity of 2.78 MMBTU/Hr each located at Building 113.	02-2023	FG-BOILERMACT
EU-MISCBOILER BLDG130(1-6)	Six natural gas-fired boilers , with a rated heat input capacity of 4.99 MMBTU/Hr. each located at Building 130.	05-2022	FG-BOILERMACT
EUHIGHBAY	Large area for thermal testing of battery cells, modules or packs. Controlled by baghouse in series with a HEPA filter	9-15-2020	FGBATTERY
EULOWBAY	Small area for thermal testing of battery cells, modules or packs. Controlled by baghouse in series with a HEPA filter	9-15-2020	FGBATTERY

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EU-VVO
EMISSION UNIT CONDITIONS

DESCRIPTION

Vehicle Validation operation located at Building 205. Validates both the equipment that will be used in actual assembly line and the operating parameters of the equipment. Miscellaneous solvents are used for wiping, purging, and associated cleaning activities. The process includes conventional cleaning, coating, curing, and assembly. One paint spray booth installed.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Dry filters

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	400 pounds/day[2]	Calendar day	EU-VVO	SC V.1 SC VI.3	**R 336.1225** **R 336.1205**
2. VOC	36.0 tons/year[2]	12-month rolling time period as determined at the end of each calendar month	EU-VVO	SC V.1 SC VI.3	**R 336.1702(a)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. All waste materials shall be captured and stored in closed containers and shall be disposed of in an acceptable manner in compliance with applicable rules and regulations.[2] **(R 336.1224, R 336.1702(a))**

2. The disposal of spent filters shall be performed in a manner which minimizes the introduction of air contaminants to the outer air.[2] **(R 336.1224, R 336.1370)**

3. Vehicles produced at this facility are not to be sold; some additional R&D activities may occur prior to the vehicle being scrapped.[2] **(R 336.1702(a), 40 CFR 60, Subpart MM)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-VVO unless all respective exhaust filters are installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1224, R 336.1301, R 336.1331, R 336.1901, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The VOC content, water content, and density of any material, as applied and as received, shall be determined using federal Reference Test Method 24 at representative time(s) and temperature(s) used to cure the related coating or material in practice as provided by ASTM D2369-04, 1.7 and Note 3. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the Method 24 results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content of any material shall be verified by testing at owner's expense.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1299, R 336.1702, R 336.1901)**

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request.[2] **(R 336.1224, R 336.1225, R 336.1299, R 336.1702, R 336.1901)**

3. The permittee shall keep the following information on a monthly basis for EU-VVO:

   a. Gallons of each material used.
   b. VOC content of each material as applied.
   c. The daily mass VOC emission rate, in pounds per day, prorated monthly.
   d. The monthly and annual mass VOC emission rates in tons per month and tons per 12-month rolling time period, as determined at the end of each calendar month.
   e. Records of the number of days of operation per calendar month.

   The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the department upon request.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1299, R 336.1702, R 3336.1901)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-4	51.0[2]	65[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**
2. SV-4a	51.0[2]	65[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**
3. SV-5	51.0[2]	65[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**
4. SV-5a	51.0[2]	65[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**
5. SV-6	13.0[2]	65[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-ENGINE7000BLDG202
EMISSION UNIT CONDITIONS

DESCRIPTION

One 1,099 kW, 1,474 bhp, diesel-fueled emergency engine manufactured in 2012 and located at Building 202.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr[2]	Hourly	EU-ENGINE7000BLDG202	SC V.1 SC VI.2 SC VI. 5	**40 CFR 60.4205**
2. CO	3.5 g/kW-hr[2]	Hourly	EU-ENGINE7000BLDG202	SC V.1 SC VI.2 SC VI. 5	**40 CFR 60.4205**
3. PM	0.20 g/kW-hr[2]	Hourly	EU-ENGINE7000BLDG202	SC V.1 SC VI.2 SC VI. 5	**40 CFR 60.4205**

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel, in EU-ENGINE7000BLDG202 with the maximum sulfur content of 15 ppm (0.0015 percent) by weight.[2] **(R 336.1205(1)(a) & (3), R 336.1402(1), 40 CFR 60.4207, 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-ENGINE7000BLDG202 for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month, including the hours as specified in SC III.2.[2] **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. The permittee may operate EU-ENGINE7000BLDG202 for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. EU-ENGINE7000BLDG202 may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity.[2] **(40 CFR 60.4211)(f))**

3. If the permittee purchased a certified engine, according to procedures specified in 40 CFR, Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for EU-ENGINE7000BLDG202:

a. Operate and maintain EU-ENGINE7000BLDG202 and control device according to the manufacturer's emission-related written instructions.
b. The permittee may only change those settings that are permitted by the manufacturer. If you do not operate and maintain the engine and control device according to the manufacturer's emission-related written instructions, the engine must demonstrate compliance as specified in SC III.4.
c. Meet the requirements as specified in 40 CFR 89, as it applies to you.[2] **(40 CFR 60.4211(a))**

4. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for EU-ENGINE7000BLDG202 and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions.[2] **(40 CFR 60.4211(g)(3))**

5. The permittee shall operate and maintain EU-ENGINE7000BLDG202 to meet the emission standards as required in 40 CFR 60.4204 and 60.4205 over the entire life of the engine. **(40 CFR 60.4206)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EU-ENGINE7000BLDG202 with non-resettable hours meters to track the operating hours.[2] **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 60.4209)**

2. The nameplate capacity of EU-ENGINE7000BLDG202 shall not exceed 1,099 kW, as certified by the equipment manufacturer.[2] **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 60.4202, 40 CFR 89.112(a))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct an initial performance test for EU-ENGINE7000BLDG202 within one year after startup of the engine to demonstrate compliance with the emission limits in 40 CFR 60.4205 unless the engines have been certified by the manufacturer and the permittee maintains the engine as required by 40 CFR, Part 60, Subpart IIII. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(40 CFR 60.4211, 40 CFR 60.4212, 40 CFR Part 60 Subpart IIII)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(1)(a) & (3), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. The permittee shall keep, in a satisfactory manner, records of testing required in SC V.1 or manufacturer's certification documentation indicating that EU-ENGINE7000BLDG202 meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR, Part 60, Subpart IIII. If EU-ENGINE7000BLDG202 becomes uncertified then the permittee must also keep records of a maintenance plan and maintenance activities. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(40 CFR 60.4211)**

3. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for EU-ENGINE7000BLDG202, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document how many hours are spent for emergency operation of EU-ENGINE7000BLDG202, including what classified the operation as emergency and how many hours are spent for non-emergency operation.[2] **(R 336.1205(1)(a) & (3), 40 CFR 60.4211)**

4. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in EU-ENGINE7000BLDG202, demonstrating that the fuel sulfur content meets the requirement of 40 CFR 80.510(b). The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil.[2] **(R 336.1205(1)(a) & (3), R 336.1402(1), 40 CFR 80.510(b))**

5. The permittee shall keep the manufacturer's emission-related written instructions and records demonstrating that EU-ENGINE7000BLDG202 has been maintained according to the manufacturer's emission-related written instructions, as specified in SC III.3. **(R 336.1213(3)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R336.1213(4)(c))**

4. The permittee shall submit all applicable notifications specified in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4), and (f)(6), and 40 CFR 63.9(b) through (e), (g), and (h) by the dates specified.[2] **(40 CFR 63.6645(a)(3) and (f))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-ENGINE7000BLDG	7.9[2]	11.7[2]	**R 336.1225, R 336.2803, R 336.2804, 40 CFR 60 52.21(c) & (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR, Part 60, Subpart A and Subpart IIII, as they apply to EU-ENGINE7000BLDG202.[2] **(40 CFR, Part 60, Subparts A & IIII)**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR 63, Subpart A and Subpart ZZZZ, as they apply to EU-ENGINE7000BLDG202, by initial startup.[2] **(40 CFR 63, Subparts A and ZZZZ, 40 CFR 63.6595)**

Footnotes:
[1]This condition is state/only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-EMGEN107
EMISSION UNIT CONDITIONS

DESCRIPTION

60kW (80.5 HP) natural gas-fired spark ignited emergency generator and located at Building 107.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO_x + HC	10 g/HP-hr[2]	Hourly	EU-EMGEN107	SC V.1 SC VI.3 SC VI.4	**40 CFR 60.4233(d) (Table 1)**
2. CO	387 g/HP-hr[2]	Hourly	EU-EMGEN107	SC V.1 SC VI.3 SC VI.4	**40 CFR 60.4233(d) (Table 1)**

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in EU-EMGEN107 except as allowed in 40 CFR 60.4243(e). Owners and operators of stationary SI natural gas-fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233.[2] **(40 CFR 60.4243(e))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall comply with the emission standards specified in 40 CFR 40 CFR 60.4233(d), (SC I.1 and I.2) by purchasing an engine certified to the emission standards in 40 CFR 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power.[2] **(40 CFR 60.4243(a))**

2. At all times, the permittee must operate and maintain any emergency stationary reciprocating internal combustion engine (RICE), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.[2] **(40 CFR 63.6605(b))**

3. There is no time limit on the use of emergency stationary RICE in emergency situations.[2] **(40 CFR 63.6640(f)(1))**

4. The permittee may operate EU-EMGEN107 for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year.[2] **(40 CFR 63.6640(f)(2))**

5. Each engine in EU-EMGEN107 may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 63.6640(f)(2). The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity.[2] **(40 CFR 63.6640(f)(3))**

6. For existing and new/reconstructed emergency engines ≤ 500 HP, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times (other than startup) in Table 2c to Subpart ZZZZ of Part 63 apply.[2] **(40 CFR 63.6625(h))**

7. The permittee shall operate and maintain EU-EMGEN107 such that it meets the emission limits in 40 CFR 60.4233(d) over the entire life of the engine.[2] **(40 CFR 60.4234, 40 CFR 60.4243(b))**

8. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for EU-EMGEN107:
   a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions
   b. Keep a maintenance plan and the permittee may only change those engine settings that are permitted by the manufacturer. If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and
   c. Meet the requirements as specified in 40 CFR 1068 Subparts A through D

   If the permittee does not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and be subject to testing to determine compliance with the emission limits.[2] **(40 CFR 60.4243(b)(1) & (2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EU-EMGEN107 with a non-resettable hour's meter to track the operating hours.[2] **(40 CFR 60.4237(c))**

2. The nameplate capacity of EU-EMGEN107 shall not be less than 19 kW (25 HP) nor shall the capacity exceed 75 kW (100 HP), as certified by the equipment manufacturer.[2] **(40 CFR 60.4233(d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. If EU-EMGEN107 is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
   a. Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(d), within 60 days after achieving the maximum production rate at which EU-EMGEN107 will be operated, but not later than 180 days after initial startup of EU-EMGEN107, or within one year after EU-EMGEN107 is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after changing emission-related settings in a way that is not permitted by the manufacturer.
   b. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.
   c. Conduct subsequent performance testing every 8,760 hours of engine operation or every three years, whichever comes first, thereafter, to demonstrate compliance with the applicable emission standards.

   If a performance test is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical

Programs Unit and District Office within 60 days following the last date of the test.[2] **(40 CFR 60.8, 40 CFR 60.4243, 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60 Subpart JJJJ)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor and record the total hours of operation for EU-EMGEN107 per calendar year, recorded through the non-resettable hours meter, in a manner acceptable to the District Supervisor, Air Quality Division. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.[2] **(40 CFR 60.4245(b))**

2. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d)), 40 CFR 60.4243, 40 CFR 60.4245)**

3. The permittee shall keep, in a satisfactory manner, the following records for EU-EMGEN107:
   a. If certified: The permittee shall keep records of the documentation from the manufacturer that the EU-EMGEN107 is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
   b. If non-certified: The permittee shall keep records of testing required in SC V.1.

   The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1205(1)(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4233(e), 40 CFR 60.4243, 40 CFR 60.4245(a))**

4. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for EU-EMGEN107:
   a. If certified: The permittee shall keep the manufacturer's emission-related written instructions and records demonstrating that EU-EMGEN107 has been maintained according to them, as specified in SC III.8.
   b. If non-certified: The permittee shall keep records of a maintenance plan, as required by 40 CFR 60.4243 and maintenance activities.

   The permittee shall keep all records on file and make them available to the Department upon request.[2] **(40 CFR 60.4243, 40 CFR 60.4245(a), 40 CFR Part 60 Subpart JJJJ)**

5. The permittee shall keep, in a satisfactory manner, either vendor emissions guarantees, or the testing required by this ROP, for EU-EMGEN107. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1205(1)(a), 40 CFR 52.21(c) & (d))**

6. If EU-EMGEN107 does not meet the standards applicable to non-emergency engines for the applicable size and model year then the permittee shall monitor and record the operation of EU-EMGEN107 in emergency and non-emergency service that are recorded through the non-resettable hours meter, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document the time of operation of the engine and the reason the engine was in operation during that time.[2] **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4243, 40 CFR 60.4245(b))**

7. The permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ, as required by this PTI, and all documentation supporting any notification.[2] **(40 CFR 60.4245(a))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

5. The permittee shall submit a notification specifying whether EU-EMGEN107 will be operated in a certified or a non-certified manner to the AQD District Supervisor, within 30 days of switching the manner of operation.[2] **(40 CFR Part 60 Subpart JJJJ, 40 CFR 60.4245(a)(4), 40 CFR 60.4243(a)(2))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. For new/reconstructed emergency spark ignition engines ≤ 500 HP, the permittee shall comply with the applicable provisions of 40 CFR 60, Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines).[2] **(40 CFR 63.6590(c))**

2. The permittee shall comply with the applicable provisions of the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63, Subpart A and Subpart ZZZZ, by the dates specified in 40 CFR 63.6595.[2] **(40 CFR 63 Subparts A and ZZZZ)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-COLDCLNRS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EU-COLDCLNR
FG-GASTANKS	Gasoline storage tanks dispensing to either engine dynamometers, chassis dynamometers, or motor vehicles which are exempt from the requirements of R 336.1201 pursuant to R 336.1284(2)(g), but subject to the requirements of R 336.16061703	~~EU-GTCL3, EU-GTCL4, EU-GTCL5~~ EU-BLDG105-AST1 EU-BLDG105-AST2
FG-WOODMETAL	Wood and metal machining operations exempt from the requirements of R 336.1201 pursuant to R 336.1285(2)(l)(vi), but subject to the requirements of R 336.1331. The number of wood and metal machining units constantly varies depending on project needs.	EU-WOODSHOP, EU-GRINDER, EU-BLASTER
FG-RULE287C	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 in effect at the time of installation/modification.	EU-R287-BLDG101, EU-R287-BLDG108, EU-R287-BLDG113, EU-R287-BLDG105, EU-R287-BLDG109, EU-R287-BLDG111, EU-R287-BLDG114, EU-R287-BLDG204, ~~EU-R287-BLDG207,~~ EU-R287-BLDG208, EU-R287-BLDG210, EU-R287-BLDG301, ~~EU-R287-BLDG106~~ EU-R287-BLDG205BODY, EU-R287-BLDG301DEADENER, EU-R287-BLDG301WINDOW

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-RULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.	EU-PS302, EU-PS111
FG-GENERATORSBLDG210	Two 2,000 kW diesel-fueled emergency generators manufactured in 2001.	EU-EMGEN210.1, EU-EMGEN210.2
FG-BACKUPGENSBLD206	Ten (10) diesel-fueled emergency generator engines. All engines are designed to operate with injection timing retardation (ITR) for the purpose of exhaust emissions optimization. All engines are subject to NSPS IIII and NESHAP ZZZZ.	EU-DRUPS1, EU-DRUPS2, EU-DRUPS3, EU-DRUPS4, EU-DRUPS5, EU-DRUPS6, EU-GENERATOR1, EU-GENERATOR2, EU-GENERATOR3, EU-GENERATOR4
FG-DRUPS7&8	Two (2) 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engines.	EU-DRUPS7, EU-DRUPS8
FG-RICEMACT	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) applicable to existing RICE less than 500 HP, existing RICE greater than 500 HP, and new RICE greater than 500 HP that commenced construction on or before July 11, 2005.	~~EU-EMGEN102,~~ EU-EMGEN115, EU-EMGEN202.2, EU- EMGEN202.3, EU-EMGEN202.4, ~~EU-EMGEN202.5,~~ EU-EMGEN207, EU-EMGEN210.3,
FG-SUBPARTIIII	New Source Performance Standards for Compression Ignition Internal Combustion Engines (CI ICE) applicable to emergency CI engines with <10 L/cylinder displacement that were constructed (ordered) after July 11, 2005 and manufactured after April 1, 2006.	EU-EMGEN106.1, EU-EMGEN106.2, EU-EMGEN202.2, EU-EMGEN219 EU-EMGEN501.2, EU-EMGEN501.3, EU-EMGEN106.3, EU-EMGEN111, EU-EMGEN130-EMER, EU-EMGEN130-FIREPUMP, EU-EMGEN207-FIREPUMP1, EU-EMGEN207-FIREPUMP2
FG-SUBPARTJJJJ	New Source Performance Standards for Spark Ignition Internal Combustion Engines (SI ICE) applicable to emergency SI engines greater than or equal to 100 horsepower (except gasoline or rich burn LPG) that were constructed (ordered) after June 12, 2006 and manufactured on or after January 1, 2009.	EU-EMGEN101, EU-EMGEN108, EU-EMGEN129, EU-EMGEN207, EU-EMGEN221, EU-EMGEN113-NORTHROOF, EU-EMGEN113-SOUTHROOF
FG-BOILERSBLDG107	Three natural gas-fired boilers with a maximum nameplate heat input capacity of 108 MMBtu-hr (subject to NSPS Db and NESHAP DDDDD).	EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
~~FG-BOILERSCL~~	~~Natural gas-fired boilers used for creating climatic conditions to conduct physical analysis of vehicles and its components. Boilers are also used to provide comfort heating.~~	~~EUBOILER1CL, EUBOILER2CL~~
FG-BOILERMACT	Natural gas-fired and dual fuel boilers and process heaters subject to 40 CFR 63, Subpart DDDDD. Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.	EUBOILER1CL, EUBOILER2CL, EU-MISCBOIL7000(1-3), EU-MISCBOILGAE(1-2), EU-MISCBOILMTS(1-2), EU-BOILER-3CL, EU-BOILER-4CL, EU-BOILER-5CL, EU-MISCBOILER108(1-2), EU-MISCBOILERDESIGN(1-3), EU-MISCBOILERBLDG130(1-6)
FGBATTERY	Battery thermal testing areas	EUHIGHBAY EULOWBAY

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FG-COLDCLNRS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Units: EU-COLDCLNR

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**

2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:

   a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**
   b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**

2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**

3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**

4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

   a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**

   b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**

c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**

2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**

   a. A serial number, model number, or other unique identifier for each cold cleaner.
   b. The date the unit was installed, manufactured or that it commenced operation.
   c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).
   d. The applicable Rule 201 exemption.
   e. The Reid vapor pressure of each solvent used.
   f. If applicable, the option chosen to comply with Rule 707(2).

3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**

4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FG-GASTANKS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Gasoline storage tanks dispensing to either engine dynamometers, chassis dynamometers, or motor vehicles which are exempt from the requirements of R 336.1201 pursuant to R 336.1284(2)(g), but subject to the requirements of R 336.~~1703.~~1606.

Emission Units: ~~EU-GTCL3, EU-GTCL4, EU-GTCL5~~EU-BLDG105-AST1, EU-BLDG105AST2

POLLUTION CONTROL EQUIPMENT

Vapor balance system

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each stationary vessel under FG-GASTANKS with a permanent submerged fill pipe. **(R 336.~~1703~~1606(1))**

2. A vapor balance system or an equivalent control system approved by the AQD shall be installed for each stationary vessel under FG-GASTANKS. The vapor balance system shall capture displaced gasoline vapor and air via a vapor tight collection line and shall be designed to return not less than 90% by weight of the displaced gasoline vapor from the stationary vessel to the delivery vessel. **(R 336.~~1703~~1606(~~2~~3))**

3. The permittee shall equip, maintain, or control each stationary vessel under FGGASTANKS with both of the following:

   a. An interlocking system or procedure to ensure that the vapor-tight collection line is connected before any gasoline can be loaded. **(R 336.~~1703~~1606(~~3~~4)(a))**
   b. A device to ensure that the vapor-tight collection line shall close upon disconnection so as to prevent release of gasoline vapor. **(R 336.~~1703~~1606(~~3~~4)(b))**

4. Any new stationary vessel at a gasoline dispensing facility that is not subject to the provisions of Rule ~~703~~606, Subrules (2) ~~and (3)~~ shall be constructed in a manner that will allow the vessel to be retrofitted according to such provisions. **(R 336.~~1703~~1606(~~5~~6))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain a record of the capacity and date of installation for each gasoline storage vessel contained under FGGASTANKS. **(R 336.1213(3))**

2. At least once per quarter, the permittee shall inspect the interlock system and the device to ensure the vapor tight collection line. **(R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of R 336.1703. **(R 336.1213(3))**

FG-WOODMETAL
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Wood and metal machining operations exempt from the requirements of R 336.1201 pursuant to R 336.1285(2)(l)(vi), but subject to the requirements of R 336.1331. The number of wood and metal machining units constantly varies depending on project needs.

Emission Units: EU-WOODSHOP, EU-GRINDER, EU-BLASTER

POLLUTION CONTROL EQUIPMENT

Dust collector, for some units

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate matter	0.1 pounds per 1,000 pounds of exhaust gases, on a dry gas basis	Instantaneous	FG-WOODMETAL	SC VI.1 - VI.3	**R 336.1331**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the machining operations with associated particulate control devices unless the control equipment is installed and operating properly. **(R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. At least once per quarter the permittee shall conduct routine and scheduled preventative maintenance on the particulate control equipment and keep a record of these activities including dates of filter replacements. For seldom used wood and machining units, routine and scheduled preventative maintenance on the particulate control equipment can be done annually. **(R 336.1213(3))**

2. The permittee shall maintain on file a calculation which demonstrates that compliance with the particulate limit can be achieved. **(R 336.1213(3))**

3. During operation of FG-WOODMETAL, the permittee shall conduct visible emission observations at least once a month for six consecutive months. After six consecutive monthly visible emissions observations with no visible

emissions observed from FG-WOODMETAL, visible emission readings can be reduced to once every three calendar months. If opacity is observed, the permittee shall conduct preventative maintenance on the control equipment immediately and visible emissions must be taken once a month for a minimum of six consecutive observations. The permittee shall keep records of the visible emissions observations and the preventative maintenance conducted on the particulate control equipment. **(R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FG-RULE287C
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 in effect at the time of installation/modification.

Emission Units: EU-R287-BLDG101, EU-R287-BLDG108, EU-R287-BLDG113, EU-R287-BLDG105, EU-R287-BLDG109, EU-R287-BLDG111, EU-R287-BLDG114, EU-R287-BLDG204, ~~EU-R287-BLDG207,~~ EU-R287-BLDG208, EU-R287-BLDG210, EU-R287-BLDG301~~, EU-R287-BLDG106~~, EU-R287-BLDG205BODY, EU-R287BLD301DEADENER, EU-R287BLDG301WINDOW

POLLUTION CONTROL EQUIPMENT

Dry filters

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	2000 lbs/month	Calendar month	Each coating line, purge and clean-up operations in EU-R287-BLDG101 and EU-R287-BLDG204	SC VI.2	**R 336.1621(10) R 336.1632(15)**
2. VOC	10 tpy	12-month rolling time period as determined at the end of each calendar month	Each coating line, purge and clean-up operations in EU-R287-BLDG101 and EU-R287-BLDG204	SC VI.2	**R 336.1621(10) R 336.1632(15)**
3. VOC	30 tpy	12-month rolling time period as determined at the end of each calendar month	All coating lines combined in FG-RULE287C	SC VI.2	**R 336.1621(10) R 336.1632(15)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 Gallons/month (minus water as applied)	Calendar month	Each emission unit in FG-RULE287C	**R 336.1287(2)(c)(i)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Any exhaust system installed on or after December 20, 2016, that serves only coating spray equipment shall be equipped with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer's specifications, or the permittee develops a plan which provides to the extent practicable

for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions. All emission units installed before December 20, 2016, with an exhaust system that serves only coating spray equipment must have a properly installed and operated particulate control system. **(R 336.1213(2), R 336.1287(2)(c)(ii), R 336.1910)**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 287(c), Permit to Install Exemption Record form (EQP 3562) or an alternative format that is approved by the AQD District Supervisor. **(R 336.1213(3))**

   a. Volume of coating used, as applied, minus water, in gallons. **(R 336.1287(c)(iii))**

   b. Documentation of any filter replacements or maintenance of water wash control for exhaust systems serving coating spray equipment or other documentation included in a plan developed by the owner or operator of the equipment. **(R 336.1213(3))**

2. The permittee shall maintain records to document monthly and yearly VOC emissions from each Service Technology operations and maintenance paint spray booths (EU-R287-BLDG101 and EU-R287-BLDG204), and yearly VOC emissions from all paint spray booths combined. **(R 336.1213(3))**

See Appendix 4.A

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FG-RULE290
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.

Emission Units installed on or after December 20, 2016: NA

Emission Units installed prior to December 20, 2016: EU-PS302, EU-PS111

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**

2. Any emission unit for which CO2 equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**

    a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(A))**

    b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(B))**

    c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(2)(a)(ii)(C))**

    d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(D))**

    e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(E))**

3. Any emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all the following provisions are met: **(R 336.1290(2)(a)(iii))**

    a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than

or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**

c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(2)(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

2. The following requirements apply to emission units installed on or after December 20, 2016, utilizing control equipment:

   a. An air cleaning device for volatile organic compounds shall be installed, maintained, and operated in accordance with the manufacturer's specifications. Examples include the following: **(R 336.1290(2)(b)(i), R 336.1910)**
      i. Oxidizers and condensers equipped with a continuously displayed temperature indication device.
      ii. Wet scrubbers equipped with a liquid flow rate monitor.
      iii. Dual stage carbon absorption where the first canister is monitored for breakthrough and replaced if breakthrough is detected.

   b. An air cleaning device for particulate matter shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the permittee shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions. It shall also be equipped to monitor appropriate indicators of performance, for example, static pressure drop, water pressure, and water flow rate. **(R 336.1290(2)(b)(ii), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**

   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**

d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii). **(R 336.1213(3))**

e. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. Volatile organic compound emissions from units installed on or after December 20, 2016, shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the AQD District Supervisor. **(R 336.1213(3), R 336.1290(2)(d))**

f. Records are maintained on file for the most recent two-year period and are made available to the department upon request. **(R 336.1213(3), R 336.1290(2)(e))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(2)(c), R 336.1213(3))**

   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4.B.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

FG-GENERATORSBLDG210
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two 2,000 kW diesel-fueled emergency generators manufactured in 2001.

Emission Units: EU-EMGEN210.1, EU-EMGEN210.2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	15.5 tpy[A2]	12-month rolling time period as determined at the end of each calendar month	EU-EMGEN210.1	SC V.1 SC VI.2 SC VI.4	**R 336.1205(1)(a)**
2. NOx	15.5 tpy[A2]	12-month rolling time period as determined at the end of each calendar month	EU-EMGEN210.2	SC V.1 SC VI. 2 SC VI. 4	**R 336.1205(1)(a)**

[A]The NOx limit is based on an emission factor of 10.52 g NOx/HP-hr.

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in FG-GENERATORSBLDG210 with the maximum sulfur content of 15 ppm (0.0015 percent) by weight.[2] **(R 336.1205(1)(a), R 336.1402(1))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each engine in FG-GENERATORSBLDG210for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month.[2] **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. The permittee shall install, maintain, and operate each engine in FG-GENERATORSBLDG210 according to the manufacturer written instructions, or procedures developed by the owner/operator and approved by the engine manufacturer, over the entire life of the engine.[2] **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

3. In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), and listed below, is prohibited. If you do not operate the engine according to the requirements in paragraphs 40 CFR 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and will need to meet all requirements for non-emergency engines.

   a. There is no time limit on the use of emergency stationary RICE in emergency situations. **(40 CFR 63.6640(f)(1))**
   b. You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs 40 CFR 63.6640(f)(2)(i) through (iii), listed below, for a maximum of 100 hours per calendar year.

Any operation for non-emergency situations as allowed by paragraphs 40 CFR 63.6640(f) counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2). **40 CFR 63.6640(f)(2)**

i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

ii. Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

iii. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency.

c. Emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours of operation are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response. **(40 CFR 63.6640(f)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG-GENERATORSBLDG210with a non-resettable hours meter to track the operating hours.[2] **(R 336.1205(1)(a) & (3))**

2. The nameplate capacity of each engine in FG-GENERATORSBLDG210 shall not exceed 2000 kW, as certified by the equipment manufacturer.[2] **(R 336.1205(1)(a) & (3))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Upon request, the permittee shall verify NO_x emission rates from the engines in FG-GENERATORSBLDG210 by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee must submit a complete stack-testing plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(1)(a) & (3), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. The permittee shall monitor and record, the hours of operation of each engine in FG-GENERATORSBLDG210, on a monthly and 12-month rolling time period basis, in a manner that is acceptable to the District Supervisor, Air Quality Division.[2] **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)**

3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FG-GENERATORSBLDG210, demonstrating that the fuel sulfur content meets the requirement of 40 CFR 80.510. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil.[2] **(R 336.1205(1)(a) & (3), 40 CFR 80.510)**

4. The permittee shall calculate NOx emissions from each engine in FG-GENERATORSBLDG210 on a monthly and 12-month rolling time period, as determined at the end of each calendar month. **(R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-EMGEN210.1	8.0[2]	17.3[2]	**R 336.1225 R 336.2803 R 336.2804 40 CFR 52.21 (c) & (d)**
2. SV-EMGEN210.2	8.0[2]	17.3[2]	**R 336.1225 R 336.2803 R 336.2804 40 CFR 52.21 (c) & (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines, as they apply to each engine in FG-GENERATORSBLDG210.[2] **(40 CFR Part 63 Subpart ZZZZ)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-BACKUPGENSBLDG206
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Ten (10) diesel-fueled emergency generator engines. All engines are designed to operate with injection timing retardation (ITR) for the purpose of exhaust emissions optimization. All engines are subject to NSPS IIII and NESHAP ZZZZ.

Emission Units: EU-DRUPS1, EU-DRUPS2, EU-DRUPS3, EU-DRUPS4, EU-DRUPS5, EU-DRUPS6, EU-GENERATOR1, EU-GENERATOR2, EU-GENERATOR3, EU-GENERATOR4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	8 g/kW-hr[2]	Hourly	Each DRUP engine: EU-DRUP1-EU-DRUP6	SC V.1	**R 336.2803 R 336.2804 R 336.2810**
2. NOx	7.13 g/kW-hr[2]	Hourly	Each mechanical engine: EU-GENERATOR1-EU-GENERATOR4	SC V.1	**R 336.2803 R 336.2804 R 336.2810**
3. NMHC + NOx FEL*	10.5 g/kW-hr[2]	Hourly	Each engine of FG-BACKUPGENSBLDG206	SC V.1 SC V.2 SC VI.2	**40 CFR 60.4205 40 CFR 60.4202 40 CFR 89.112 Table 2**
4. CO	3.5 g/kW-hr[2]	Hourly	Each engine of FG-BACKUPGENSBLDG206	SC V.1 SC V.2 SC VI.2	**40 CFR 60.4205 40 CFR 60.4202 40 CFR 89.203(c) 40 CFR 89.112 Table 1**
5. PM FEL*	0.54 g/kW-hr[2]	Hourly	Each engine of FG-BACKUPGENSBLDG206	SC V.1 SC V.2 SC VI.2	**40 CFR 60.4205 40 CFR 60.4202 40 CFR 89.112 Table 2**

*FEL means Family Emission Limit

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel, in each engine in FG-BACKUPGENSBLDG206 with the maximum sulfur content of 15 ppm (0.0015 percent) by weight, and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.[2] **(R 336.1205(1)(a) & (b), R 336.1402(1), 40 CFR 60.4207, 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each engine of FG-BACKUPGENSBLDG206 for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. The 500 hours includes the hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2.[2] **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c) & (d))**

2. The permittee may operate each engine of FG-BACKUPGENSBLDG206 for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. Each engine of FG-BACKUPGENSBLDG206 may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity.[2] **(40 CFR 60.4211)**

3. Except as allowed by 40 CFR 60.4211(g), as described in SC III.4, the permittee shall purchase a certified engine for the same model year and maximum engine power as the applicable emission standards. The permittee shall meet the following requirements for each engine, over the entire life of each engine:
   a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
   b. The certified engine must be installed and configured according to the manufacturer's emission-related specifications, where only those emission-related settings that are permitted by the manufacturer may be changed, and
   c. Meet the requirements as specified in 40 CFR 89, as it applies to you.

   If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and must demonstrate compliance as specified in SC III.4.[2] **(40 CFR 60.4206, 40 CFR 60.4211(a) & (c))**

4. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for each engine and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions.[2] **(40 CFR 60.4211(g)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine of FG-BACKUPGENSBLDG206 with non-resettable hours meters to track the operating hours.[2] **(R 336.1205(1)(a) & (b), R 336.1225, 40 CFR 60.4209)**

2. The nameplate capacity of each engine, EU-DRUPS1 through EU-DRUPS6, shall not exceed 3490 kW, and the nameplate capacity of each engine, EU-GENERATOR1 through EU-GENERATOR4, shall not exceed 2710 kW, as certified by the equipment manufacturer.[2] **(R 336.1205(1)(a) & (b), R 336.1225, 40 CFR 60.4202, 40 CFR 89.112)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Upon request of the AQD District Supervisor, the permittee shall verify NOx, NMHC + NOx, CO and PM emission rates from one of more engines in FG-BACKUPGENSBLDG206, by testing at owner's expense, in accordance with Department requirements. If testing is to be performed, the permittee must submit a complete stack-testing plan to the AQD no less than 30 days prior to testing. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810, 40 CFR 60.4211)**

2. Unless the engines have been certified by the manufacturer as required by 40 CFR Part 60 Subpart IIII and the permittee maintains each engine as required by 40 CFR 60.4211, the permittee shall conduct an initial performance test for each engine in FG-BACKUPGENSBLDG206, within one year after startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes

emission-related settings in a way that is not permitted by the manufacturer, to demonstrate compliance with the emission limits in 40 CFR 60.4205(b). If a performance test is required, the performance test shall be conducted according to 40 CFR 60.4212. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. After conducting the initial performance test, the permittee shall conduct subsequent performance testing, for non-certified engines, every 8,760 hours or three years, whichever comes first. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.4211(g), 40 CFR 60.4212)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(1)(a) & (b), R 336.2803, R 336.2804)**

2. For each engine of FG-BACKUPGENSBLDG206, the permittee shall keep, in a satisfactory manner, records of testing required in SC V.1 or manufacturer certification documentation indicating that the engine meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart IIII. If any engine becomes uncertified then the permittee must also keep records of a maintenance plan and maintenance activities for that engine. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(40 CFR 60.4211)**

3. Starting with the model years in Table 5 to 40 CFR Part 60, Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall keep records of the operation of each engine of FG-BACKUPGENSBLDG206 in emergency and non-emergency service that are recorded through the non-resettable hour meter, on a calendar year basis. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.[2] **(40 CFR 60.4211, 40 CFR 60.4214(b))**

4. The permittee shall monitor and record the total hours of operation for each engine of FG-BACKUPGENSBLDG206, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division.[2] **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, R 336.2810)**

5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in each engine of FG-BACKUPGENSBLDG206, demonstrating that the fuel meets the requirement of 40 CFR 80.510(b), as stated in SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil and either the cetane index or aromatic content of the fuel oil.[2] **(R 336.1205(1)(a) & (b), R 336.1402(1), 40 CFR 80.510(b))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction,

reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of each engine of FG-BACKUPGENSBLDG206.[2] **(R 336.1201(7)(a))**

5. The permittee shall submit a notification specifying whether each engine of FG-BACKUPGENSBLDG206 will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following a switching of the manner of operation.[2] **(40 CFR Part 60 Subpart IIII)**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVDRUPS1	22.0[2]	29.7[2]	**R 336.1225, R 336.2803, R 336.2804**
2. SVDRUPS2	22.0[2]	29.7[2]	**R 336.1225, R 336.2803, R 336.2804**
3. SVDRUPS3	22.0[2]	29.7[2]	**R 336.1225, R 336.2803, R 336.2804**
4. SVDRUPS4	22.0[2]	29.7[2]	**R 336.1225, R 336.2803, R 336.2804**
5. SVDRUPS5	22.0[2]	29.7[2]	**R 336.1225, R 336.2803, R 336.2804**
6. SVDRUPS6	22.0[2]	29.7[2]	**R 336.1225, R 336.2803, R 336.2804**
7. SVGENERATOR1	20.1[2]	24.0[2]	**R 336.1225, R 336.2803, R 336.2804**
8. SVGENERATOR2	20.1[2]	24.0[2]	**R 336.1225, R 336.2803, R 336.2804**
9. SVGENERATOR3	20.1[2]	24.0[2]	**R 336.1225, R 336.2803, R 336.2804**
10. SVGENERATOR4	20.1[2]	24.0[2]	**R 336.1225, R 336.2803, R 336.2804**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart IIII, as they apply to each engine of FG-BACKUPGENSBLDG206.[2] **(40 CFR Part 60 Subparts A & IIII)**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to each engine of FG-BACKUPGENSBLDG206, upon startup.[2] **(40 CFR Part 63 Subparts A and ZZZZ)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-RICEMACT
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) applicable to existing RICE less than 500 HP, existing RICE greater than 500 HP, and new RICE greater than 500 HP that commenced construction on or before July 11, 2005.

Emission Units:

Existing RICE (commenced construction before June 12, 2006) less than or equal to 500 HP
~~EU-EMGEN102,~~ EU-EMGEN115, EU-EMGEN207

Existing RICE (commenced construction before December 19, 2002) greater than 500 HP
EU-EMGEN202.3, ~~EU-EMGEN202.5,~~ EU-EMGEN210.3

New RICE (commenced construction on or after December 19, 2002) greater than 500 HP
EU-EMGEN202.4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. At all times, the permittee must operate and maintain any emergency stationary reciprocating internal combustion engine (RICE), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.6605(b))**

2. The permittee shall not operate emergency engines for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. **(R 336.2803, R 336.2804, R336.1213(3))**

3. In order for an engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (4), and listed below, is prohibited. If you do not operate the engine according to the requirements in paragraphs 40 CFR 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and will need to meet all requirements for non-emergency engines.
   a. There is no time limit on the use of emergency stationary RICE in emergency situations. **(40 CFR 63.6640(f)(1))**

   b. You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs 40 CFR 63.6640(f)(2)(i) through (iii), listed below, for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs 40 CFR 63.6640(f) counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
      i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the

insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

ii. Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

iii. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency. **(40 CFR 63.6640(f)(2)**

c. Emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours of operation are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response. **(40 CFR 63.6640(f)(3))**

3. For existing CI emergency RICE with a site rating of more than 500 brake HP and new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP, the permittee shall not operate or not be contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), as stated in SC III.3.b.ii. and iii. **(40 CFR 63.6590(b)(1)(i), 40 CFR 63.6590(b)(3)(iii))**

4. For existing emergency engines ≤ 500 HP, the permittee must conduct the following:

   a. Change oil and filter every 500 hours of operation or annually, whichever comes first.

   b. Inspect air cleaner (compression ignition units) or spark plugs (spark ignition units) every 1,000 hours of operation or annually whichever comes first and replace as necessary.

   c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. **(40 CFR 63.6602, Table 2c to Subpart ZZZZ of Part 63)**

5. For existing emergency engines ≤ 500 HP, the permittee must operate and maintain the stationary RICE and after treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6625(e))**

6. For existing emergency engines ≤ 500 HP, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times (other than startup) in Table 2c to Subpart ZZZZ of Part 63 apply. **(40 CFR 63.6625(h))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must install a non-resettable hour-meter. **(40 CFR 63.6625(f)**, **(R336.1213(3))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For existing emergency engines ≤ 500 HP, the permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the engine and after-treatment device (if any) was operated and maintained according to the maintenance plan. **(40 CFR 63.6655(e))**

2. The permittee must keep monthly and 12-month rolling records of the hours of operation of each engine in FG-RICEMACT that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency. **(40 CFR 63.6655(f), (R336.1213(3))**

3. For existing emergency engines ≤ 500 HP, the permittee must keep records of the occurrence and duration of each malfunction of operation of the engine, or air pollution control and monitoring equipment, if installed. **(40 CFR 63.6655(a)(2))**

4. For existing emergency engines ≤ 500 HP, the permittee shall keep in a satisfactory manner, records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment, if installed, to its normal or usual manner of operation. **(40 CFR 63.6655(a)(5))**

5. The permittee shall keep a list of all emergency engines subject to 40 CFR 63, Subpart ZZZZ, including the rating and date of installation of each emergency generator. **(R 336.1213(3))**

6. The permittee shall record the types of fuel used in each engine in FG-RICEMACT and calculate the amount of fuel used in each engine in FG-RICEMACT per calendar year. Fuel usage shall be calculated using the maximum hourly fuel consumption rate at 100 percent load and the hours of operation for each engine in FG-RICEMACT. **(R 336.202)**

7. The permittee shall monitor and record the hours of operation of each engine in FG-RICEMACT on a monthly and 12-month rolling time period. **(R 336.1213(3))**

8. The permittee shall keep records of the diesel fuel oil sulfur content used in the compression ignition engines in FG-RICEMACT. **(R 336.1402)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable provisions of the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63, Subpart A and Subpart ZZZZ, by the dates specified in 40 CFR 63.6595. **(40 CFR 63 Subparts A and ZZZZ)**

FG-SUBPARTIIII
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

New Source Performance Standards for Compression Ignition Internal Combustion Engines (CI ICE) applicable to emergency CI engines with <10 L/cylinder displacement that commenced construction (ordered) after July 11, 2005 and manufactured after April 1, 2006.

Emission Units:
CI internal combustion engine with maximum engine power less than 100 HP
EU-EMGEN219

CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP
~~NA~~ EU-EMGEN106.3, EU-EMGEN111, EU-EMGEN130-FIREPUMP, EU-EMGEN207-FIREPUMP1, EU-EMGEN207-FIREPUMP2

CI internal combustion engine greater than 500 HP
EU-EMGEN106.1, EU-EMGEN106.2, EU-EMGEN202.2, EU-EMGEN501.2, EU-EMGEN501.3, EU-EMGEN130-EMER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	5 g/kW-hr	Hourly	EU-EMGEN219, EU-EMGEN111	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(b)** **40 CFR 60.4202(a)(2)** **40 CFR 89.112(a)**
2. CO	3.5 g/kW-hr	Hourly	EU-EMGEN106.1 EU-EMGEN106.2 EU-EMGEN202.2, EU-EMGEN501.2, EU-EMGEN501.3, EU-EMGEN130-EMER, EU-EMGEN106.3	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(b)** **40 CFR 60.4202(a)(2)** **40 CFR 89.112(a)**
3. CO	5 g/kW-hr	Hourly	EU-207FIREPUMP1, EU-207FIREPUMP2	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(c)** **Table 4 of 40 CFR Part 60 Subpart IIII**
4. CO	3.5 g/kW-hr	Hourly	EU-EMGEN130-FIREPUMP	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(c)** **Table 4 of 40 CFR Part 60 Subpart IIII**

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
~~3.~~5. PM	0.4 g/kW-hr	Hourly	EU-EMGEN219	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(b)** **40 CFR 60.4202(a)(2)** **40 CFR 89.112(a)**
6. PM	0.3 g/kW-hr	Hourly	EU-EMGEN111	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(b)** **40 CFR 60.4202(a)(2)** **Table 3 of Appendix I to Part 1039**
~~4.~~7. PM	0.2 g/kW-hr	Hourly	EU-EMGEN106.1 EU-EMGEN106.2 EU-EMGEN202.2, EU-EMGEN501.2, EU-EMGEN501.3, EU-EMGEN130-EMER, EU-EMGEN106.3	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(b)** **40 CFR 60.4202(a)(2)** **40 CFR 89.112(a)**
8. PM	0.3 g/kW-hr	Hourly	EU-207FIREPUMP1, EU-207FIREPUMP2	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(c)** **Table 4 of 40 CFR Part 60 Subpart IIII**
9. PM	0.2 g/kW-hr	Hourly	EU-EMGEN130-FIREPUMP	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(c)** **Table 4 of 40 CFR Part 60 Subpart IIII**
~~5.~~10. NMHC + NOx	4.7 g/kW-hr	Hourly	EU-EMGEN219	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(b)** **40 CFR 60.4202(a)(2)** **40 CFR 89.112(a)**
~~6.~~11. NMHC + NOx	4 g/kW-hr	Hourly	EU-EMGEN106.1 EU-EMGEN106.2 EU-EMGEN501.2, EU-EMGEN106.3, EU-EMGEN111	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(b)** **40 CFR 60.4202(a)(2)** **40 CFR 89.112(a)** ~~**40 CFR 60.4205(c)**~~
~~7.~~12. NMHC + NOx	6.4 g/kW-hr	Hourly	EU-EMGEN202.2 EU-EMGEN501.3, EU-EMGEN130-EMER	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(b)** **40 CFR 60.4202(a)(2)** **40 CFR 89.112(a)**
13. NMHC + NOx	4 g/kW-hr	Hourly	EU-207FIREPUMP1, EU-207FIREPUMP2, EU-EMGEN130-FIREPUMP	SC V.1 SC VI.2 SC VI.3 SC VI.5	**40 CFR 60.4205(c)** **Table 4 of 40 CFR Part 60 Subpart IIII**

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II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(40 CFR 60.4207(b), 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate and maintain emergency engines and control device, if installed, according to the manufacturer's emission related written instructions. **(40 CFR 60.4211(a))**

2. The permittee may change only emission related settings that are permitted by the manufacturer. **(R 336.4211(a))**

3. The permittee must meet applicable requirements specified in 40 CFR 89. **(R 336.4211(a))**

4. If the permittee does not install, configure, operate, and maintain an engine and control device in FG-SUBPARTIIII according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
   a. The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
   b. The permittee shall conduct performance testing in accordance with 40 CFR 60.4211(g)(1) through (3), 40 CFR 60.4212, and 40 CFR 60.4213. **(40 CFR 60.4211(g)(1), 40 CFR 60.4211(g)(3))**

5. After December 31, 2008, the permittee may not install stationary compression ignition engines (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines. **(40 CFR 60.4208(a))**

6. The permittee may not operate any engine in FG-SUBPARTIIII for more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. Each engine in FG-SUBPARTIIII may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity. **(40 CFR 60.4211)(f))**

7. The permittee shall operate and maintain each engine in FG-SUBPARTIIII to meet the emission standards as required in 40 CFR 60.4204 and 60.4205 over the entire life of the engine. **(40 CFR 60.4206)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain emergency engines with a non-resettable hours meter to track operating hours. **(40 CFR 60.4209)(a))**

2. The engines in FG-SUBPARTIIII must be installed and configured according to the manufacturer's emission related specifications. **(40 CFR 60.4211(b) & (c))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. If the permittee does not install, configure, operate, and maintain an engine and control device in FG-SUBPARTIIII according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must conduct performance testing as follows: **(40 CFR 60.4211(g))**
   a. The permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year after startup of an uncertified engine or if the permittee does not install and configure an engine and control device in FG-SUBPARTIIII according to the manufacturer's emission-related written instructions. **(40 CFR 60.4211(g)(1), 40 CFR 60.4211(g)(3))**
   b. The permittee shall conduct a performance test within one year after changing emission-related settings on an engine or control device in FG-SUBPARTIIII in a way that is not permitted by the manufacturer. **(40 CFR 60.4211(g)(1), 40 CFR 60.4211(g)(3))**

c. The permittee shall conduct a performance test within one year after EU-EMGEN106.1, EU-EMGEN106.2, EU-EMGEN202.2 or EU-EMGEN501.2 is no longer operated and maintained in accordance with the manufacturer's emission-related written instructions. **(40 CFR 60.4211(g)(3))**

d. The permittee shall conduct subsequent performance testing on emergency compression ignition engine engines > 500 HP, every 8,760 hours of engine operation or three years, whichever comes first. **(40 CFR 60.4211(g)(3))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep fuel supplier certification records or fuel sample test data, including the maximum fuel sulfur content, for each delivery of diesel fuel oil used. **(40 CFR 80.510(b), R 336.1212(3))**

2. The permittee shall keep manufacturer's certification documentation indicating that emergency engines meet the applicable emission limitations contained in 40 CFR 60.4205(b). **(40 CFR 60.4211))**

3. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for each engine in FG-SUBPARTIIII, on a monthly and 12-month rolling time period basis. The permittee shall document how many hours are spent for emergency and non-emergency operation of each engine in FG-SUBPARTIIII, including what classified the operation as emergency or non-emergency. **(40 CFR 60.4211, 40 CFR 60.4214, R 336.1213(3))**

4. If the emergency engine is equipped with a diesel particulate filter, the permittee must keep records of any corrective action taken after the backpressure monitor has indicated that the high backpressure limit of the engine is approached. **(40 CFR 60.4214(c))**

5. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine in FG-SUBPARTIIII:
   a. If certified: The permittee shall keep the manufacturer's emission-related written instructions and records demonstrating that each engine in FG-SUBPARTIIII has been maintained according to the manufacturer's emission-related written instructions.
   b. If non-certified: The permittee shall keep records of a maintenance plan, as required by 40 CFR 60.4243 and maintenance activities. **(R 336.1213(3)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. For new emergency engines > 500 HP, the permittee shall submit initial notification requirements of 40 CFR 63.6645(f). **(40 CFR 63.6590(b)(1))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR 60 Subpart A and Subpart IIII. **(40 CFR 60 Subparts A and IIII)**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to each engine of FG-SUBPARTIIII, upon startup. **(40 CFR Part 63 Subparts A and ZZZZ)**

FG-SUBPARTJJJJ
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

New Source Performance Standards for Spark Ignition Internal Combustion Engines (ICE) applicable to emergency engines greater than or equal to 100 horsepower (except gasoline or rich burn LPG) that commenced construction (ordered) after June 12, 2006 and were manufactured after January 1, 2009.

Emission Units:

SI internal combustion engine with maximum engine power less than 100 HP
NA

SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP
EU-EMGEN129, EU-EMGEN207, EU-EMGEN221, EU-EMGEN113-NORTHROOF, EU-EMGEN113-SOUTHROOF

SI internal combustion engine greater than 500 HP
EU-EMGEN101, EU-EMGEN108

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	2.0 g/HP-hr	Hourly	EU-EMGEN101, EU-EMGEN129, EU-EMGEN207, EU-EMGEN221 EU-EMGEN108, EU-EMGEN113-NORTHROOF, EU-EMGEN113-SOUTHROOF	SC V.1, SC VI.1 SC VI.2 SC VI.3	**40 CFR 60.4233(e)**
2. CO	4.0 g/HP-hr	Hourly	EU-EMGEN101, EU-EMGEN129, EU-EMGEN207, EU-EMGEN221 EU-EMGEN108, EU-EMGEN113-NORTHROOF, EU-EMGEN113-SOUTHROOF	SC V.1 SC VI.1 SC VI.2 SC VI.3	**40 CFR 60.4233(e)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
3. VOC[A]	1.0 g/HP-hr	Hourly	EU-EMGEN101, EU-EMGEN129, EU-EMGEN207, EU-EMGEN221 EU-EMGEN108, EU-EMGEN113-NORTHROOF, EU-EMGEN113-SOUTHROOF	SC V.1 SC VI.1 SC VI.2 SC VI.3	**40 CFR 60.4233(e)**

[A]For purposes of 40 CFR 60 Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. If the emergency engine is not operated in a certified manner as required by 40 CFR 60, Subpart JJJJ, the permittee must demonstrate compliance as follows:
   a. The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
   b. The permittee shall conduct performance testing in accordance with 40 CFR 60.4243(a)(2)(i) through (iii) and 40 CFR 60.4244. **(40 CFR 60.4243(a)(2), 40 CFR 60.4244)**

2. The permittee must demonstrate compliance with the emission standards specified in 40 CFR 60.4233(e) by operating and maintaining the certified emergency engine, and control device, if any, according to the manufacturer's emission-related written instructions. **(40 CFR 60.4243(a))**

3. The permittee may only adjust engine settings according to and consistent with the manufacturer's instructions. **(40 CFR 60.4243(a))**

4. The permittee must comply with applicable requirements specified in 40 CFR Part 1068, Subparts A through D. **(40 CFR 60.4243(a))**

The permittee must operate each engine in FG-SUBPARTJJJJ according to the requirements in 40 CFR 60.4243 (d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4243 (d)(1) through (3), is prohibited. If the permittee does not operate an engine in FG-SUBPARTJJJJ according to the requirements in paragraphs 40 CFR 60.4243 (d)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60 Subpart JJJJ and must meet all requirements for non-emergency engines. **(40 CFR 60.4243(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG-SUBPARTJJJJ with a non-resettable hours meter to track the operating hours. (**40 CFR 60.4237)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. If an engine in FG-SUBPARTJJJJ is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
   a. Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(e), within 60 days after achieving the maximum production rate at which the engine will be operated, but not later than 180 days after initial startup of an engine in FG-SUBPARTJJJJ, or within one year after the engine is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after changing emission-related settings in a way that is not permitted by the manufacturer.
   b. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.
   c. Conduct subsequent performance testing on engines greater than 500 HP every 8,760 hours of engine operation or every three years, whichever comes first, thereafter, to demonstrate compliance with the applicable emission standards.

   If a performance test is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(40 CFR 60.8, 40 CFR 60.4243(a), 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60 Subpart JJJJ)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep, in a satisfactory manner, records the manufacturer's emission-related written instructions and records demonstrating that each engine in FG-SUBPARTIIII has been maintained according to the manufacturer's emission-related written instructions. **(40 CFR 60.4243(a))**

2. The permittee shall keep manufacturer certification documentation indicating that emergency engines meet the applicable emission limitations contained in 40 CFR 60.4233(e). **(40 CFR 60.4245(a)(3))**

3. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for each engine in FG-SUBPARTIIII, on a monthly and 12-month rolling time period basis. The permittee shall document how many hours are spent for emergency and non-emergency operation of each engine in FG-SUBPARTIIII, including what classified the operation as emergency or non-emergency**. (40 CFR 60.4245(b), R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. For new emergency engines > 500 HP, the permittee shall submit initial notification requirements of 40 CFR 63.6645(f). **(40 CFR 63.6590(b)(1))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must operate and maintain the emergency engine that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. **(40 CFR 60.4234)**

2. The permittee shall comply with the applicable provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR 60, Subpart A and Subpart JJJJ. **(40 CFR 60, Subparts A and JJJJ)**

3. The permittee shall comply with the applicable provisions of the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63, Subpart A and Subpart ZZZZ, by the dates specified in 40 CFR 63.6595. **(40 CFR 63 Subparts A and ZZZZ)**

FG-BOILERSBLDG107
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three natural gas-fired boilers with a maximum nameplate heat input capacity of 108 MMBtu/hr (subject to NSPS Db and NESHAP DDDDD).

Emission Units: EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	0.064 lb/MMBtu heat input[2]	30-day average	Each boiler: EU-Boiler1-107 EU-Boiler2-107 EU-Boiler3-107	SC VI.1	**40 CFR 60.44b(a)**
2. NOx	34.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	Combined for all three boilers: EU-Boiler1-107 EU-Boiler2-107 EU-Boiler3-107	SC VI.1	**R336.1205(1) R 336.2803 R 336.2804**
Test Protocol shall specify averaging time					

II. MATERIAL LIMITS

1. The permittee shall burn only natural gas in each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107.[2] **(R 336.1201(3), 40 CFR 60.44b(a))**

2. The combined natural gas usage for all three boilers in FG-BOILERS107 (EU-Boiler1-107, EUNewBoiler3, EU-Boiler3-107) shall not exceed 1050 million cubic feet per 12-month rolling time period as determined at the end of each calendar month.[2] **(R 336.1205, R 336.2802, 40 CFR 52.21)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall operate a continuous oxygen trim system on each boiler, EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107, that maintains an optimum air to fuel ratio and conduct a tune-up of each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107 every five years as specified in 40 CFR 63.7540 (a)(10)(i) through (vi) as applicable.

   40 CFR 63.7540(a)(10)
   - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment.
   - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.

iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.

v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

vi. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of 40 CFR 63.7540.

A. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater.

B. A description of any corrective actions taken as a part of the tune-up; and

C. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.[2] **(40 CFR 63.7540 (a)(10) and (12))**

2. The permittee must meet the requirements in paragraph 63.7500(e). The permittee must meet these requirements at all times the affected unit is operating, except as provided in paragraph 63.7500(f).[2] **(40 CFR 63.7500(e))**

3. The permittee must meet the work practice standard in 40 CFR Part 63, Subpart DDDDD Table 3 that applies to the boiler or process heater, for each gas 1 boiler or process heater at the source.[2] **(40 CFR 63.7500(a)(1))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the daily natural gas usage rate in FG-BOILERSBLDG107, on a monthly basis, in cubic feet per month.[2] **(R 336.1205, R 336.2802)**

2. The permittee shall not operate each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107 unless the low NOx burners and flue gas recirculation system are installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1205, R 336.2803, R 336.2804)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup, the permittee shall verify NO_x emission rates from each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and Db. The permittee shall notify the AQD District Supervisor in writing within 15 days of the date of commencement of trial operation in accordance with 40 CFR 60.7(a)(3). Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(40 CFR Part 60 Subpart Db)**

2. For new or reconstructed affected sources (as defined in 40 CFR 63.7490), the permittee must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the five-year schedule as specified in 40 CFR 63.7515(d) following the initial compliance date specified in 40 CFR 63.7495(a). Thereafter, the permittee is required to complete the applicable five-year tune-up as specified in 40 CFR 63.7515(d). **(40 CFR 63.7510(g))**

3. The permittee must conduct a five-year performance tune-up according to 40 CFR 63.7540(a)(12). Each five-year tune-up specified in 40 CFR 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in 40 CFR 63.7490), the first five-year tune-up must be no later than 61 months after the initial startup of the new or reconstructed affected source.[2] **(40 CFR 63.7515(d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Except as specified in SC VI.2, the permittee shall continuously monitor and record, in a satisfactory manner, the NO_x emissions and the O_2, or CO_2, emissions from each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107. The permittee shall operate each Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 3 and shall use the CEMS data for determining compliance with SC I.1.[2] **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart Db)**

2. As an alternative to the compliance method specified in SC VI.1, the permittee may demonstrate compliance by monitoring each boiler's (EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107) operating conditions and predicting NO_x emission rates in a satisfactory manner. The permittee shall submit a plan that identifies the operating conditions to be monitored and the records to be maintained. The permittee shall operate each Predictive Emission Monitoring System (PEMS) to meet the timelines, requirements and reporting detailed in Appendix 3 and shall use the PEMS data for determining compliance with SC I.1.[2] **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart Db)**

3. The permittee shall keep monthly natural gas usage records for FG-BOILERSBLDG107, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas used, in cubic feet, on a calendar month basis, and a 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.49b(d)(2))**

4. The permittee shall keep, in a satisfactory manner, records of the fuel receipts from the fuel supplier that certify that the natural gas meets the definition of natural gas defined in 40 CFR 60.41b for FG-BOILERSBLDG107 on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) and (d), 40 CFR Part 60 Subpart Db, 40 CFR 60.49b(r)(1))**

5. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
   a. Compliance tests and any testing required under the special conditions of this permit.
   b. Monitoring data.
   c. All records required by 40 CFR 60.7 and 60.49b.
   d. All calculations necessary to show compliance with the limits contained in this permit.

   All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f).[2] **(R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1702(a), R 336.1912, 40 CFR 52.21(c) & (d), 40 CFR 60.7(f), 40 CFR Part 60 Subpart Db)**

6. The permittee must keep records according to paragraphs (a)(1) and (2) of 40 CFR 63.7555: **(40 CFR 63.7555(a))**
   a. A copy of each notification and report that is submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status.[2] **(40 CFR 63.7555(a)(1))**
   b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7555(a)(2))**

7. If the permittee operates a unit in the unit designed to burn gas 1 subcategory that is subject to this subpart, and uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under Part 63, other gas 1 fuel, or gaseous fuel subject to another subpart of Part 63 or part 60, 61, or 65, the permittee

must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.[2] **(40 CFR 63.7555(h))**

8. The permittee must maintain records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).[2] **(40 CFR 63.7560(a))**

9. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.[2] **(40 CFR 63.7560(b))**

10. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining three years.[2] **(40 CFR 63.7560(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107.[2] **(R 336.1201(7)(a))**

5. The permittee shall submit the following notifications to the Department in accordance with the federal National Emissions Standards for Hazardous Air Pollutants, 40 CFR 63.7545:
   a. The permittee shall submit to the Administrator all of the notifications in 40 CFR 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107 by the dates specified.
   b. As specified in 40 CFR 63.9(b)(4) and (5), if you startup your new or reconstructed affected source on or after January 31, 2013, the permittee shall submit an Initial Notification not later than 15 days after the actual date of startup of each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107.[2] **(40 CFR 63.7545)**

6. The permittee must submit each report in **Table 9** to 40 CFR 63 Subpart DDDDD that applies.[2] **(40 CFR 63.7550(a))**

7. For units that are subject only to a requirement to conduct an annual, biennial, or five-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or five-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, instead of a semi-annual compliance report. **(40 CFR 63.7550(b))**
   a. The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days (or one, two, or five years, as applicable, if submitting an annual, biennial, or five-year compliance report) after the compliance date that is specified for the source in 40 CFR 63.7495.[2] **(40 CFR 63.7550(b)(1))**
   b. The first compliance report must be postmarked or submitted no later than March 15 following the compliance period ending December 31. **(40 CFR 63.7550(b)(2); 40 CFR 63.10(a)(5))**

c. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and five-year compliance reports must cover the applicable one, two, or five-year periods from January 1 to December 31.[2] **(40 CFR 63.7550(b)(3))**
d. Each subsequent compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and five-year compliance reports must be postmarked or submitted no later than January 31.[2] **(40 CFR 63.7550(b)(4)); 40 CFR 63.10(a)(5)**

8. A compliance report must contain the following information depending on how the permittee chooses to comply with the limits set in this rule.[2] **(40 CFR 63.7550(c))**
   a. If the facility is subject to the requirements of a tune up, they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii) and (xiv) of 40 CFR 63.7550.[2] **(40 CFR 63.7550(c)(1))**

9. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550.[2] **(40 CFR 63.7550(h))**

10. The permittee's applicable Reporting Requirements are in 40 CFR Part 63, Subpart DDDDD Table 9.[2] **(40 CFR 63.7550)**

See Appendix 3

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVNB1	42.1[2]	42[2]	**R 336.1201(3)**
2. SVNB2	42.1[2]	42[2]	**R 336.1201(3)**
3. SVNB3	42.1[2]	42[2]	**R 336.1201(3)**

IX. OTHER REQUIREMENT(S)

4. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart DDDDD for Industrial, Commercial and Institutional Boilers and Process Heaters by the compliance date.[2] **(40 CFR Part 63, Subparts A and DDDDD)**

5. If the permittee has a new or reconstructed boiler or process heater, then the permittee must comply with 40 CFR 63 Subpart DDDDD upon startup of the boiler or process heater.[2] **(40 CFR 63.7495(a))**

6. The permittee must comply with the applicable General Provisions in 40 CFR 63.1 through 63.15 that apply to this source per 40 CFR Part 63, Subpart DDDDD Table 10.[2] **(40 CFR 63.7565)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-BOILERSCL

FLEXIBLE GROUP CONDITIONS

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DESCRIPTION

Natural gas-fired boilers used for creating climatic conditions to conduct physical analysis of vehicles and its components. Boilers are also used to provide comfort heating.

Emission Units: EU-BOILER1CL, EU-BOILER2CL

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall only burn natural gas in each climatic boiler. (R 336.1213(3))

2. The permittee shall record the amount of fuel combusted in each climatic boiler each calendar month. (40 CFR 60, Subpart Dc, Section 60.48c(g))

3. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the boilers. (40 CFR 60, Subpart A, Section 60.7(b))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the small industrial-commercial-institutional steam generating units NSPS, 40 CFR 60, Subpart Dc, and Subpart A. (40 CFR 60, Subpart A and Dc)

FG-BOILERMACT
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Natural gas-fired and dual fuel boilers and process heaters subject to 40 CFR 63, Subpart DDDDD.

Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

Emission Units:

Less than 5 MMBtu/hr	EU-MISCBOIL7000(1-3), EU-MISCBOILGAE(1-2), EU-MISCBOIL108(1-2), EU-MISCBOILBLDG130(1-6), EU-MISCBOILDESIGN(1-3)
Equal to or greater than 5 MMBtu/hr and less than 10 MMBtu/hr	EU-MISCBOILMTS(1-2), EU-BOILER3CL, EU-BOILER4CL, EU-BOILER5CL
Equal to or greater than 10 MMBtu/hr	~~EU-BOILER1CL, EU-BOILER2CL~~

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn fuels as allowed in the Unit designed to burn gas 1 subcategory definition in 40 CFR 63.7575, as stated in SC II.1.a below, unless as identified and in compliance with SC VII.9 and SC VII.10 and SC IX.6. **(40 CFR 63.7499(l), 40 CFR 63.7575)**
   a. Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must meet the requirements in paragraphs (a)(1) and (3) of 40 CFR 63.7500, as listed below, except as provided in paragraphs (b) and (e) of 40 CFR 63.7500, stated in SC III.2. The permittee must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of 40 CFR 63.7500, stated in SC III.4. **(40 CFR 63.7500(a))**
   a. The permittee must meet each work practice standard in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies to the boiler or process heater, for each boiler or process heater at the source. **(40 CFR 63.7500(a)(1))**
   b. At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with

safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

2. As provided in 40 CFR 63.6(g), EPA may approve use of an alternative to the work practice standards. **(40 CFR 63.7500(b))**

3. The above standards apply at all times the affected unit is operating, except during periods of startup and shutdown. **(40 CFR 63.7500(f))**

4. For startup and shutdown, the permittee must meet the work practice standards according to items 5 and 6 of Table 3 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7540(d))**

5. The permittee must complete an initial tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), stated in SC IX.4, no later than the compliance date specified in 40 CFR 63.7495, stated in SC IX.1. The permittee must complete the one-time energy assessment specified in Table 3 of 40 CFR Part 63, Subpart DDDDD no later than the compliance date specified in 40 CFR 63.7495, stated in SC IX.1. **(40 CFR 63.7510(e))**

6. If the permittee is required to meet an applicable tune-up work practice standard, the permittee must conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.4.a; biennial performance tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.4.b; or five-year performance tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.4.c. Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in 40 CFR 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each five-year tune-up specified in 40 CFR 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. **(40 CFR 63.7515(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep records according to paragraphs (a)(1) and (2) of 40 CFR 63.7555, as listed below. **(40 CFR 63.7555(a))**
   a. A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**

   b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7555(a)(2))**

2. If the permittee uses an alternative fuel in any unit in FG-BOILERMACT, other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, other gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 63 or Parts 60, 61, or 65, the permittee must keep records of the total hours per

calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. **(40 CFR 63.7555(h))**

3. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**

4. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**

5. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining three years. **(40 CFR 63.7560(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545, both stated in SC VII.7 through SC VII.9, and in Subpart A of 40 CFR 63. **(40 CFR 63.7495(d))**

5. The permittee must submit a signed statement in the Notification of Compliance Status report that indicates that the permittee conducted a tune-up of each unit in FG-BOILERMACT. **(40 CFR 63.7530(d))**

6. The permittee must include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to Table 3 of 40 CFR Part 63, Subpart DDDDD, and that the assessment is an accurate depiction of the facility at the time of the assessment. **(40 CFR 63.7530(e))**

7. The permittee must report each instance in which they did not meet each emission limit and operating limit in Tables 1 through 4 of 40 CFR 63 Subpart DDDDD that applies. These instances are deviations from the emission limits or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in 40 CFR 63.7550. **(40 CFR 63.7540(b))**

8. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), and 40 CFR 63.9(b) through (h) that apply to the permittee by the dates specified. **(40 CFR 63.7545(a))**

9. If the permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR Part 63, Part 60, Part 61, or Part 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, the permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of 40 CFR 63.7545, as listed below. **(40 CFR 63.7545(f))**
   a. Company name and address. **(40 CFR 63.7545(f)(1))**
   b. Identification of the affected unit. **(40 CFR 63.7545(f)(2))**
   c. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared, or the natural gas supply interruption began. **(40 CFR 63.7545(f)(3))**
   d. Type of alternative fuel that the permittee intends to use. **(40 CFR 63.7545(f)(4))**

e. Dates when the alternative fuel use is expected to begin and end. **(40 CFR 63.7545(f)(5))**

10. If the permittee has switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee must provide notice of the date upon which the permittee switched fuels or made the physical change within 30 days of the switch/change. The notification must identify: **(40 CFR 63.7545(h))**
    a. The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice. **(40 CFR 63.7545(h)(1))**
    b. The currently applicable subcategory under 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7545(h)(2))**
    c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h)(3))**

11. The permittee must submit each report in Table 9 of 40 CFR Part 63, Subpart DDDDD that applies. **(40 CFR 63.7550(a))**

12. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.15, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC X.14.a, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.4.b, or five-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.4.c, and not subject to emission limits or Table 4 operating limits, the permittee may submit only an annual, biennial, or five-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semiannual compliance report. **(40 CFR 63.7550(b))**

    a. The first semiannual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495, stated in SC IX.1, and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for the source in 40 CFR 63.7495, stated in SC IX.1. If submitting an annual, biennial, or five-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on December 31 within one, two, or five years, as applicable, after the compliance date. **(40 CFR 63.7550(b)(1))**
    b. The first semiannual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495, stated in SC IX.1. The first annual, biennial, or five-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), (40 CFR 63.10(a)(5))**
    c. Each subsequent semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and five-year compliance reports must cover the applicable one, two, or five-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**
    d. Each subsequent semiannual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and five-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), (40 CFR 63.10(a)(5))**

13. The first and subsequent compliance reports may be submitted according to the dates specified in SC VII.2 for semiannual ROP reporting. **(40 CFR 63.7550(b)(5))**

14. A compliance report must contain the following information depending on how the permittee chooses to comply with the limits set in this rule. **(40 CFR 63.7550(c))**
    a. If the facility is subject to the requirements of a tune up, the permittee must submit a compliance report with the information in SC VII.14 (a)(i) through (iv) as follows: **(40 CFR 63.7550(c)(1))**
        i. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**

ii. Process unit information, emissions limitations, and operating parameter limitations. (**40 CFR 63.7550(c)(5)(ii))**
iii. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
iv. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.4.a, biennial tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.4.b, or five-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.4.c. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a five-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

15. The permittee must submit the reports according to the procedures specified in paragraphs (h) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**
    a. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the CEDRI (CEDRI can be accessed through the EPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI website (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form become available in CEDRI. **(40 CFR 63.7550(h)(3))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with 40 CFR Part 63, Subpart DDDDD no later than:
    a. January 31, 2016 for existing boilers or process heaters (EU-BOILER1CL, EU-BOILER2CL), except as provided in 40 CFR 63.6(i).
    b. April 1, 2013, or upon startup, whichever is later, for new or reconstructed boilers or process heaters (EU-MISCBOIL-7000 (1-3), EU-MISCBOIL-GAE (1-2), EU-MISCBOIL-MTS (1-2)). **(40 CFR 63.7495)**

2. The permittee must be in compliance with the emission limits, work practice standards, and operating limits of 40 CFR Part 63, Subpart DDDDD. These emission and operating limits apply at all times when the affected unit is operating except for the periods noted in 40 CFR 63.7500(f), stated in SC III.3. **(40 CFR 63.7505(a))**

3. For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), stated in SC IX.4.a, and the schedule described in 40 CFR 63.7540(a)(13), stated in SC IX.4.d, for units that are not operating at the time of their scheduled tune-up. **(40 CFR 63.7515(g))**

4. The permittee must demonstrate continuous compliance with the work practice standards in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies according to the methods specified in paragraphs (a)(10) through (13) of 40 CFR 63.7540, as listed below. **(40 CFR 63.7540(a))**
    a. If the boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, the permittee must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540, as listed below. The tune-up must be conducted while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up. This frequency does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. **(40 CFR 63.7540(a)(10))**

i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**

ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**

iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**

v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**

vi. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (a)(10)(vi)(A) through (C) of 40 CFR 63.7540, as listed below. **(40 CFR 63.7540(a)(10)(vi))**

A. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**

B. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**

C. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

D. If the boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in paragraph (a)(12) of 40 CFR 63.7540), the permittee must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540 to demonstrate continuous compliance. **(40 CFR 63.7540(a)(11))**

E. If the boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to five million Btu per hour and the unit is in the units designed to burn gas 1 subcategory, the permittee must conduct a tune-up of the boiler or process heater every five years as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540 to demonstrate continuous compliance. The permittee may delay the burner inspection specified in paragraph (a)(10)(i) of 40 CFR 63.7540 until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every five years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**

F. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**

5. Table 10 of 40 CFR Part 63, Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 applies to the permittee. **(40 CFR 63.7565)**

6. If the permittee has switched fuels or made a physical change to the boiler or process heater that resulted in the applicability of a different subcategory after the compliance date of this subpart, the permittee must be in compliance with the applicable existing source provisions of this subpart on the effective date of the fuel switch or physical change. **(40 CFR 63.7495 (h))**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
USEPA/EPA	United States Environmental Protection Agency	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in FG-BOILERSBLDG107 SC VI.1 and 2:

NO_x Monitoring
Continuous Emission Monitoring System (CEMS) and
Predictive Emission Monitoring System (PEMS) Requirements

1. Within 30 calendar days after commencement of trial operation, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CEMS/PEMS.

2. Within 150 calendar days after commencement of trial operation, the permittee shall submit two copies of a complete test plan for the CEMS/PEMS to the AQD for approval.

3. Within 180 calendar days after commencement of trial operation, the permittee shall complete the installation and testing of the CEMS/PEMS.

4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS/PEMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table.

Pollutant	Applicable PS
NOx	2
O_2 and CO_2	3
PEMS	16

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2 and 3 of Appendix B to 40 CFR Part 60. If a PEMS is installed in lieu of a CEMS, the PEMS shall be installed, maintained, and operated in accordance with PS 16 of Appendix B to 40 CFR Part 60, as proposed or promulgated.

7. ~~Each calendar quarter, t~~The permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. If a PEMS is installed in lieu of a CEMS, the permittee shall perform the Quality Assurance Procedures of the PEMS set forth in PS 16 of Appendix B to 40 CFR Part 60, as proposed or promulgated. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).

8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
   a. A report of each exceedance above 0.20 lb NO_x/MMBtu. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

Commented [MP9]:
We use a PEMS.

PS16 language below:
9.3 Quarterly Relative Accuracy Audits. In the first year of operation after the initial certification, perform a RAA consisting of at least three 30-minute portable analyzer or RM determinations each quarter a RATA is not performed. To conduct a RAA, follow the procedures in Section 8.2 for the relative accuracy test, except that only three sets of measurement data are required, and the statistical tests are not required. The average of the three or more portable analyzer or RM determinations must not exceed the limits given in Section 13.5. Report the data from all sets of measurement data. **If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, you may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA.** When such a failure occurs, you must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA.

EGLE has already provided approval via email allowing us to follow the PS16 schedule. We would like to memorialize this in the permit to avoid confusion in the future.

b. A report of all periods of CEMS/PEMS downtime and corrective action.
c. A report of the total operating time of each boiler EU-Boiler1-107, EU-Boiler2-107, EU-Boiler3-107 during the reporting period.
d. A report of any periods that the CEMS/PEMS exceeds the instrument range.
e. If no exceedances or CEMS/PEMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

Appendix 4. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B4049-2014. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-B4049-2014a is being reissued as Source-Wide PTI No. MI-PTI-B4049-2019a.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
~~102-16~~	~~201800136*~~	~~Incorporate permit conditions from PTI No. 102-16 into the Title V Permit.~~	~~EU-EMGEN107, FG-BOILERSBLDG107~~
~~160-11B~~	~~201500063/ September 1, 2015~~	~~Incorporate Permit to Install (PTI) No. 160-11B. The Warren Tech Center proposes to install a state-of-the-art, computer server facility, in order to consolidate and upgrade its corporate information technology (IT) infrastructure. Thirteen emergency engines will be installed to support the server facility. The project was originally permitted under PTI 160-11 on February 29, 2012. The company proposed increasing the size of the four mechanical engines under PTI 160-11A which was issued on July 13, 2012. The entire project underwent review for both applications, so both were PSD for nitrogen oxides (NOx). No comments were received during the public comment period for either PTI.~~	~~FG-BACKUPGENSBLDG206~~

Formatted Table

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
		~~PTI No. 160-11B is to increase the permitted size of the DRUPs engines from 3010 kW to 3490 kW.~~ ~~PTI No. 160-11B required public comment because it is PSD for NOx. The public comment period began on December 12, 2014 and ended on January 13, 2015. No comments were received. A hearing was not requested, and therefore was not held.~~	
46-20		Two (2) 4,680 HP (3,490 kilowatts (kW)) diesel-fueled emergency engines.	EU-DRUPS7 EU-DRUPS8 FG-DRUPS7&8
2-23		Battery thermal testing areas	EU-HIGHBAY EU-LOWBAY FGBATTERY

Commented [MP10]:

Appendix 7. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

SL

October 2, 2024

Mail Code 480-101-210
31295 Charles Kettering Road
Warren, MI 48092
gm.com

Sam Liveson
EGLE Air Quality Division – Detroit Office
Cadillac Place
3058 West Grand Blvd, Suite 2-300
Detroit, MI 48202

Please find enclosed a Renewable Operating Permit (ROP) Report Certification and associated documents for:

General Motors LLC - Warren Technical Center
31295 Charles Kettering Road
Mail Code: 480-101-240
Warren, MI 48092-9005
Permit Number: MI-ROP-B4049-2019a

As you know, General Motors and EGLE are currently working through the ROP renewal process for the above permit. Per Sam Liveson's request, we are submitting another Additional Interest (AI) form to include a Permit to Install issued after the submittal of an administratively complete ROP Renewal Application in February 2024.

If you require any further information, please contact Matt Perko, Environmental Engineer, at 586-242-6763, or Jessica Alderton, Staff Environmental Engineer, at 586-863-8490.

Sincerely,

Erica Fultz

Erica Fultz
Sr. Manager, Facilities Operations, Non-Manufacturing and Customer Care and Aftersales

Enclosures:
Signed Form C-001
Form AI-Part F October 2024 Additional PTI Roll-In
PTI 38-24

CC:
Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division – Inspection Mark Dziadosz
27700 Donald Court
Warren, MI 48092-2793

EGLE Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division

RENEWABLE OPERATING PERMIT APPLICATION
C-001: CERTIFICATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to provide this information may result in civil and/or criminal penalties. Please type or print clearly.

This form is completed and included as part of Renewable Operating Permit (ROP) initial and renewal applications, notifications of change, amendments, modifications, and additional information.

Form Type **C-001**	SRN B4049

Stationary Source Name General Motors LLC - Warren Technical Center	
City Warren	County Macomb

SUBMITTAL CERTIFICATION INFORMATION

1. Type of Submittal *Check only one box.*

☐ Initial Application (Rule 210) ☐ Notification / Administrative Amendment / Modification (Rules 215/216)

☐ Renewal (Rule 210) ☒ Other, describe on AI-001

2. If this ROP has more than one Section, list the Section(s) that this Certification applies to _____

3. Submittal Media ☐ E-mail ☐ FTP ☐ Disk ☒ Paper

4. Operator's Additional Information ID - Create an Additional Information (AI) ID that is used to provide supplemental information on AI-001 regarding a submittal.

AI PART F - October 2024 Additional PTI Roll-In

CONTACT INFORMATION

Contact Name Jessica Alderton	Title Staff Environmental Engineer
Phone number 586-863-8490	E-mail address jessica.alderton@gm.com

This form must be signed and dated by a Responsible Official.

Responsible Official Name Erica Fultz			Title Sr. Mgr., Facilities, Non-Manufacturing and CCA	
Mailing address 31295 Charles Kettering Road				
City Warren	State MI	ZIP Code 48092	County Macomb	Country USA

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate and complete.

Erica Fultz

Signature of Responsible Official

10/2/24

Date

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B4049	Section Number (if applicable):

1. Additional Information ID
AI-PART F - October 2024 Additional PTI Roll-In

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Two PTI (Numbers 46-20 and 2-23) were previously requested to be rolled in to the ROP as submitted in February 2024.

On April 12, 2024, PTI 38-24 was issued by EGLE for the Battery Cell Development Center (BCDC). This PTI is attached herein and is being submitted for roll-in as requested by Sam Liveson of EGLE.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

April 12, 2024

PERMIT TO INSTALL
38-24

ISSUED TO
General Motors Corporation

LOCATED AT
31295 Charles Kettering Road
Warren, Michigan 48092

IN THE COUNTY OF
Macomb

STATE REGISTRATION NUMBER
B4049

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **January 26, 2024**	
DATE PERMIT TO INSTALL APPROVED: **April 12, 2024**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
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PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_2S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO_x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO_2	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUANOMIX	Anode material metering and mixing process. Dry powders and water are combined to form an anode slurry.	FGMIXING
EUCATMIX	Cathode material metering and mixing process. Dry powders and solvent are combined to form a cathode slurry.	FGMIXING
EUANOCOAT	Anode slurry coating and slitting process where slurry is applied to copper foil and dried using an electric dryer.	FGCOATING
EUCATCOAT	Cathode slurry coating and slitting process where slurry is applied to aluminum foil and dried using an electric dryer.	FGCOATING
EUNMPRCVY	N-methyl-2-pyrollidone (NMP) recovery system. NMP evaporated from the slurry application lines will be recovered for off-site processing.	FGCOATING
EUANOCUT	Anode slitting and notching process used to separate coated anode rolls into individual electrode sheets.	FGCUTTING
EUCATCUT	Cathode slitting and notching process used to separate coated cathode rolls into individual electrode sheets.	FGCUTTING
EUASSEMBLY	Battery cell packaging process where anode and cathode substrates are stacked together, laminated, and placed into a battery cell. Aluminum and copper tabs are then laser-welded to the battery cells.	FGCUTTING
EUELECFILLI	First-stage electrolyte injection process. Electrolyte solution is injected into battery cells under vacuum pressure. First electrolyte injection occurs in Main Building.	NA
EUELECFILLII	Second-stage electrolyte injection process. Additional solution is injected into battery cells under vacuum pressure. Second electrolyte injection occurs in Formation Building.	FGFORMBLDG
EUFORMDEGAS	Formation and degassing process. Assembled cells are initially charged and discharged to form a solid electrolyte interface. Gases formed during initial charging and discharging are extracted under vacuum pressure.	FGFORMBLDG
EUSOLVENT	Facility wide usage of cleaning solvents.	NA
EU-EMGENBCDC	A 163 HP (119.9 kW) natural gas-fired reciprocating internal combustion engine driving an emergency generator.	NA
EUDOCKHEAT	Facility-wide usage of dock heaters	FGNATGAS
EUAIRSUPPLY	Various natural gas-fired air supply houses used throughout the facility.	FGNATGAS

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

EUELECFILLI
EMISSION UNIT CONDITIONS

DESCRIPTION

First-stage electrolyte injection process. Electrolyte solution is injected into battery cells under vacuum pressure. First electrolyte injection occurs in Main Building.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	2.84 tpy	12-month rolling time period as determined at the end of each month	EUELECFILLI	SC VI.3	R 336.1702(a)

II. MATERIAL LIMIT(S)

1. For the first twelve months after commencement of operation, the total combined energy output of all cells produced within EUELECFILLI shall not exceed 0.05 GW-hours per month. After the first twelve months of operation, the total combined energy output of all cells produced within EUELECFILLI shall not exceed 0.6 GW-hours per 12-month rolling time period. **(R 336.1205, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702(a), R 336.1910)**

2. The permittee shall keep the following on a monthly basis for EUELECFILLI: **(R 336.1205, R 336.1702(a))**
   a) The type of each cell produced.
   b) The number of each type of cell produced.
   c) The energy output of each type of cell produced.
   d) The total volume of electrolyte solution used.

e) The VOC content of the electrolyte solution.

3. For the first twelve months after commencement of operation, the permittee shall calculate the monthly and total VOC emission rate for EUELECFILLI. After the first twelve months of operation, the permittee shall calculate the VOC emissions rate monthly and per 12-month rolling time period. **(R 336.1205, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVELECFILLBCDC	94.5	50	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

EUSOLVENT
EMISSION UNIT CONDITIONS

DESCRIPTION

Facility wide usage of cleaning solvents.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC, acetone (CAS No. 67-64-1), and dimethyl carbonate (CAS No. 616-38-6) combined	10.6 tpy	12-month rolling period as determined at the end of each month	EUSOLVENT	SC VI.2	R 336.1225, R 336.1702

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall handle all VOC and/or HAP containing materials used in EUSOLVENT in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1224, R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702(a), R 336.1910)**

2. The permittee shall keep the following information on a monthly basis for EUSOLVENT:
   a) Gallons of each solvent used and reclaimed.
   b) The VOC content, acetone content, and dimethyl carbonate content, in pounds per gallon, of each solvent used.

c) VOC, acetone, and dimethyl carbonate mass emission calculations determining the combined monthly emission rate in tons per calendar month.
d) VOC, acetone, and dimethyl carbonate mass emission calculations determining the combined annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702(a))**

3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of the cleaning solvents, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

EU-EMGENBCDC
EMISSION UNIT CONDITIONS

DESCRIPTION

A 163 HP (119.9 kW) natural gas-fired reciprocating internal combustion engine driving an emergency generator.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO_x	2.0 g/HP-hr - OR - 160 ppmvd at 15% oxygen	Hourly	EU-EMGENBCDC	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR 60 Subpart JJJJ
2. CO	4.0 g/HP-hr - OR - 540 ppmvd at 15% oxygen	Hourly	EU-EMGENBCDC	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR 60 Subpart JJJJ
3. VOC	1.0 g/HP-hr - OR - 86 ppmvd at 15% oxygen	Hourly	EU-EMGENBCDC	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR 60 Subpart JJJJ

ppmvd = parts per million by volume at 15 percent oxygen and on a dry gas basis.

[A] For non-certified engines, the permittee may choose to comply with either g/hp-hr or ppmvd at 15% O_2.
[B] For purposes of Part 60 Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in EU-EMGENBCDC. **(R 336.1225, R 336.1702(a), 40 CFR 60.4230)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-EMGENBCDC for more than 500 hours per year, based on a 12-month rolling time period as determined at the end of each calendar month. The 500 hours includes the hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2. **(R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

2. The permittee may operate EU-EMGENBCDC for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 60.4243(d)(2))**

3. The permittee may operate EU-EMGENBCDC up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted as part of the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 60.4243(d)(3))**

4. If the permittee purchases an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, and operates and maintains the certified stationary SI combustion engine and control device according to the manufacturer's emission related written instructions, the permittee must meet the requirements as specified in 40 CFR Part 1068, Subparts A through D as they apply. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance. **(40 CFR 60.4243(a)(1), 40 CFR 60.4243(b)(1))**

5. If the permittee purchases an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, and does not operate and maintain the certified stationary SI combustion engine and control device according to the manufacturer's emission related written instructions, the engine will be considered a non-certified engine. The permittee must keep a maintenance plan and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(a)(2)(ii), 40 CFR 60.4243(b)(1))**

6. If the permittee purchases a non-certified engine, the permittee must keep a maintenance plan and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(b)(2)(i))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EU-EMGENBCDC with a non-resettable hours meter to track the operating hours. **(R 336.1225, 40 CFR 60.4209, 40 CFR 60.4237(b)))**

V. TESTING/SAMPLING

1. If the permittee purchased a non-certified engine or does not operate and maintain a certified engine and control device according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing as indicated in 40 CFR 60.4244, but is not required to conduct subsequent performance testing unless the stationary engine undergoes rebuild, major repair or maintenance. Therefore, the permittee must demonstrate compliance as follows:
   a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(e), within 60 days after achieving the maximum production rate at which the engines will be operated, but no later than 180 days after initial startup, or within 1 year after the engine is no longer operated as a certified engine.
   b) If a performance test is required, the performance tests shall consist of three separate test runs of at least 1 hour, for each performance test required in 40 CFR 60.4244 and Table 2 to 40 CFR Part 60, Subpart JJJJ.

   If a performance test is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(40 CFR 60.8, 40 CFR 60.4243, 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60 Subpart JJJJ)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. If the permittee purchases an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, and operates and maintains the certified stationary SI combustion engine and control device according to the manufacturer's emission related written instructions, the permittee must keep

records of conducted maintenance to demonstrate compliance. **(40 CFR 60.4243(a)(1), 40 CFR 60.4243(b)(1))**

2. If the permittee purchases an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, and does not operate and maintain the certified stationary SI combustion engine and control device according to the manufacturer's emission related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance. In addition, the permittee must conduct an initial performance test, as specified in SC V.1, to demonstrate compliance. **(40 CFR 60.4243(a)(2)(ii), 40 CFR 60.4243(b)(1))**

3. If the permittee purchases a non-certified engine, the permittee must keep records of conducted maintenance. In addition, the permittee must conduct an initial performance test, as specified in SC V.1, to demonstrate compliance. **(40 CFR 60.4243(b)(2)(i))**

4. The permittee shall keep, in a satisfactory manner, the following records for EU-EMGENBCDC:
   a) All notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ, and all documentation supporting any notification.
   b) Maintenance conducted on the engine.
   c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 1048, 1054, and 1060, as applicable.
   d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner, documentation that the engine meets the emission standards.
      i. Testing for each engine, as required in SC V.1.
      ii. Maintenance activities for each engine, as required by SC III.5 and SC III.6.

5. The permittee shall monitor and record the total hours of operation for EU-EMGENBCDC on a monthly and 12-month rolling time period basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for EU-EMGENBCDC, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of EU-EMGENBCDC, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(40 CFR 60.4245)**

VII. REPORTING

1. The permittee shall submit a notification specifying whether EU-EMGENBCDC will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(40 CFR 60 Subpart JJJJ)**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEMGEN	3.9	5.3	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the federal Standards of Performance for Stationary Spark Ignition Internal Combustion Engines as specified in 40 CFR Part 60, Subparts A and Subpart JJJJ. **(40 CFR Part 60, Subparts A and JJJJ)**
2. The permittee shall comply with all applicable provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines as specified in

40 CFR Part 63, Subparts A and Subpart ZZZZ. **(40 CFR 63.6590(c), 40 CFR Part 63 Subparts A and ZZZZ)**

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGMIXING	Anode and cathode material metering and mixing process. Particulate emissions from each process are controlled by a dust collector.	EUANOMIX, EUCATMIX
FGCOATING	Anode and cathode slurry coating and slitting process. NMP from the cathode slurry is recovered using a solvent recovery system (EUNMPRCVY)	EUANOCOAT, EUCATCOAT, EUNMPRCVY
FGCUTTING	All cutting processes controlled by dust collectors. Includes initial cutting and notching processes as well as any residual cutting from assembly process.	EUANOCUT, EUCATCUT, EUASSEMBLY
FGFORMBLDG	Formation Building operations including second electrolyte filling, formation, and degassing.	EUELECFILLII, EUFORMDEGAS
FGNATGAS	Various natural gas-fired equipment used throughout the Main Building and Formation Building.	EUDOCKHEAT, EUAIRSUPPLY

FGMIXING
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Anode and cathode material metering and mixing process. Particulate emissions from each process are controlled by a dust collector.

Emission Unit: EUANOMIX, EUCATMIX

POLLUTION CONTROL EQUIPMENT

Each mixing process is controlled by a separate dust collector.

I. EMISSION LIMIT(S)

1. There shall be no visible emissions from each dust collector stack (SVANOMIXDC and SVCATMIXDC) in FGMIXING. **(R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGMIXING unless the dust collectors are installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate FGMIXING unless a malfunction abatement plan (MAP), as described in Rule 911(2), for the dust collectors is implemented and maintained. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the title of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed, or upon request from the District Supervisor. The permittee shall submit the MAP, and any amendments to the MAP, to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor the pressure drop for the dust collectors in FGMIXING on a continuous basis. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910)**

2. The permittee shall monitor the dust collector emission points to verify the filters are operating properly, by taking visible emission readings for FGMIXING a minimum of once per calendar month, if operating. A "visible emissions reading" refers to a survey to be performed for the purpose of determining if there is the presence of visible emissions or if there are no visible emissions, other than uncombined water vapor. Visible emission readings shall be taken at least once per month, if operating, for one minute in duration, during daylight hours and during routine operating conditions. This can be performed by either a certified or non-certified reader. Such readings do not have to be conducted per the requirements of Method 9. Multiple stacks may be observed simultaneously. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall inspect the filters and perform any required maintenance or shut down the affected operation within two hours of the visible emissions occurrence. **(R 336.1910)**

3. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for FGCUTTING. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, status of visible emissions, and the type of maintenance performed. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1303, R 336.1910)**

4. The permittee shall continuously monitor and record the pressure drop for the dust collectors in FGMIXING, during operation, with instrumentation acceptable to the AQD District Supervisor. Continuous pressure drop recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep these records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1910)**

5. The permittee shall keep documentation listing the manufacturer's specifications for the baghouse dust collectors, including the maximum allowable flow rate and guaranteed concentration of PM through the collectors. The permittee shall maintain this record on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGMIXING. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVANOMIXDC	22.8	80	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVCATMIXDC	18.9	80	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVANOMIXUNC	94.5	50	R 336.1225, 40 CFR 52.21(c) & (d)
4. SVCATMIXUNC	94.5	50	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

FGCOATING
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Anode and cathode slurry coating and slitting process. NMP from the cathode slurry is recovered using a solvent recovery system (EUNMPRCVY)

Emission Unit: EUANOCOAT, EUCATCOAT, EUNMPRCVY

POLLUTION CONTROL EQUIPMENT

The coating process takes place within a Permanent Total Enclosure (PTE) as defined in EPA Method 204. VOC emissions from the cathode coating process are controlled by an NMP recovery system (EUNMPRCVY). The NMP recovery system recovers the cathode coating solvent for off-site processing.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	2.6 lb/gal (minus water) as applied	Instantaneous	EUCATCOAT	SC V.3, SC VI.2	R 336.1702(a)
2. VOC	20.2 tpy	12-month rolling time period as determined at the end of each month	FGCOATING	SC VI.2	R 336.1205, R 336.1225, R 336.1702(a)

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 532,088 gallons of NMP (CAS No. 872-50-4) in EUCATCOAT per 12-month rolling time period, as determined at the end of each calendar month. **(R 336.1205, R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGCOATING unless a malfunction abatement plan (MAP), as described in Rule 911(2), for the solvent recovery system (EUNMPRCVY) is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the title of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed, or upon request from the District Supervisor. The permittee shall submit the MAP, and any amendments to the MAP, to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall

implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911)**

2. The permittee shall either maintain a minimum of 0.007 inches of water pressure differential between each PTE and the adjacent area on a continuous basis or maintain a facial velocity of 200 feet per minute through each natural draft opening of each PTE on a continuous basis. **(R 336.1205, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FGCOATING unless the solvent recovery system (EUNMPRCVY) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the solvent recovery system includes maintaining operating parameters at the manufacturer's recommended specifications until an acceptable performance test has been performed, after which the operating parameters shall be maintained at the values during the most recent control device performance test which demonstrated compliance with a minimum 99 percent recovery efficiency. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

2. The permittee shall not operate each emission unit of FGCOATING unless the PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires the following:
   a) The direction of the air flow at all times must be into the enclosure; and either
   b) The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or
   c) The pressure drop across the enclosure must be at least 0.007 inch H_2O.
   (R 336.1702(a), R 336.1910)

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall determine the VOC content, water content and density of any material, as applied, using federal Reference Test Method 24 or an alternative method approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer's formulation data or safety data sheets. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1205, R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

2. Within 365 days from commencement of operation of FGCOATING, the permittee shall verify the enclosure meets the definition of PTE or verify the capture efficiency of the enclosure, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R 336.2004)**

3. Within 365 days from commencement of operation of FGCOATING, the permittee shall verify the VOC recovery efficiency of EUNMPRCVY, by testing at owner's expense, in accordance with Department requirements, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. The permittee must complete the test once every five years, thereafter. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of destruction efficiency includes the submittal of a complete report of the test results, including calculations demonstrating the destruction efficiency, to the AQD within 60 days following the last date of the test. **(R 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**

2. The permittee shall record the operating parameters in the solvent recovery system (EUNMPRCVY) once per calendar day, as recommended by the manufacturer, while operating. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

3. The permittee shall keep the following information for EUCATCOAT:
   a) Gallons (minus water and with water) of cathode slurry used, recorded on a daily basis, for each individual line and all lines combined.
   b) The amount of NMP, in gallons, processed per 12-month rolling time period, as determined at the end of each calendar month.
   c) VOC emission calculations determining the VOC content of the materials (minus water and with water) as applied on a daily basis, for each individual line.
   d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month, for each individual line and all lines combined.
   e) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month, for each individual line and all lines combined.

   The permittee shall keep the records using mass balance, or an alternative method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a) & (d))**

4. The permittee shall monitor and record, in a satisfactory manner, the air flow or pressure differential between each PTE portion of FGCOATING and the adjacent area, on a continuous basis, to verify that air is entering each PTE. Continuous air flow or pressure differential data recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee may demonstrate compliance based upon a three-hour average air flow or pressure differential. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1702)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGCOATING. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-SRP	94	50	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Paper and Other Web Coating as specified in 40 CFR Part 63, Subparts A and Subpart JJJJ. **(40 CFR Part 63 Subparts A and JJJJ)**

FGCUTTING
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

All cutting processes controlled by dust collectors. Includes initial cutting and notching processes as well as any residual cutting from assembly process.

Emission Unit: EUANOCUT, EUCATCUT, EUASSEMBLY

POLLUTION CONTROL EQUIPMENT

Each emission unit is controlled by a dust collector to control particulate emissions.

I. EMISSION LIMIT(S)

1. There shall be no visible emissions from any stack in FGCUTTING. **(R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGCUTTING unless the dust collectors are installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate FGCUTTING unless a malfunction abatement plan (MAP), as described in Rule 911(2), for the dust collectors is implemented and maintained. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the title of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed, or upon request from the District Supervisor. The permittee shall submit the MAP, and any amendments to the MAP, to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor the pressure drop for each dust collector in FGCUTTING on a continuous basis. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall continuously monitor and record the pressure drop for the FGCUTTING dust collectors, during operation, with instrumentation acceptable to the AQD District Supervisor. Continuous pressure drop recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep these records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1910)**

2. The permittee shall monitor the dust collector emission points to verify the filters are operating properly, by taking visible emission readings for FGCUTTING a minimum of once per calendar month, if operating. A "visible emissions reading" refers to a survey to be performed for the purpose of determining if there is the presence of visible emissions or if there are no visible emissions, other than uncombined water vapor. Visible emission readings shall be taken at least once per month, if operating, for one minute in duration, during daylight hours and during routine operating conditions. This can be performed by either a certified or non-certified reader. Such readings do not have to be conducted per the requirements of Method 9. Multiple stacks may be observed simultaneously. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall inspect the filters and perform any required maintenance or shut down the affected operation within two hours of the visible emissions occurrence. **(R 336.1910)**

3. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for FGCUTTING. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, status of visible emissions, and the type of maintenance performed. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1303, R 336.1910)**

4. The permittee shall keep a record of all inspections and maintenance, and any corrective actions performed on the dust collectors, in accordance with the MAP. The permittee shall maintain this record on site and make it available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

5. The permittee shall keep documentation listing the manufacturer's specifications for the dust collectors, including the maximum allowable flow rate and guaranteed concentration of PM through the collectors. The permittee shall maintain this record on site and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGCUTTING. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVDUST1	15	63	40 CFR 52.21(c) & (d)
2. SVDUST3	9	63	40 CFR 52.21(c) & (d)
3. SVDUST4	15	63	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FGFORMBLDG
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Formation Building operations including second electrolyte filling, formation, and degassing.

Emission Unit: EUELECFILLII, EUFORMDEGAS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	1.12 tpy	12-month rolling time period as determined at the end of each month	FGFORMBLDG	SC VI.2	R 336.1702(a)

*VOC emissions are limited by the total energy output of the cells produced in EUELECFILLI, including the number and type of cells produced, the amount of electrolyte solution used, and the VOC content of the electrolyte solution.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702(a), R 336.1910)**

2. The permittee shall calculate the VOC emission rate from FGFORMBLDG monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, 336.1702)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFORMBLDG	94.5	50	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

FGNATGAS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Various natural gas-fired equipment used throughout the Main Building and Formation Building.

Emission Unit: EUDOCKHEAT, EUAIRSUPPLY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in each emission unit in FGNATGAS. **(R 336.1225, R 336.1702)**

2. The natural gas usage for FGNATGAS shall not exceed 230.52 MMscf per 12-month rolling time period as determined at the end of each month. **(R 336.1225, R 336.1702)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep natural gas usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas combusted on a monthly and 12-month rolling time period, in million cubic feet per year, for FGNATGAS. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA