MICHIGAN SUGAR COMPANY

April 19, 2024

Hand Delivered

Chris Hare
District Supervisor
EGLE-Air Quality Division
401 Ketchum St., Suite B
Bay City, MI 48708

Subject: Renewable Operating Permit Renewal Application, Michigan Sugar Company – Croswell, SRN B2876
Permit Number: MI-ROP-B2876-2019a

Dear Mr. Hare:

Please find enclosed the application for the Renewable Operating Permit renewal for Michigan Sugar Company – Croswell (SRN B2876), for your review.

An originally signed ROP Renewal Application Form EQP 6000 and Form EQP 5773 (C-001) is included with this application. Also included is the redline permit MI-ROP-B2876-2019a, Compliance Assurance Monitoring (CAM) and Monitoring Malfunction Plan (MAP).

If you have any questions or require additional information, please contact myself or Jeff Pfost at (616) 928-9129.

Sincerely,

Meaghan Martuch
Air Compliance Manager
Michigan Sugar Company
Office: 989-686-0161, ext. 2236
Cell: 989-780-2550

Enclosures

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)
B2876	2063	311313	MI-ROP-B2876-2019a	

Source Name
Michigan Sugar Company - Croswell

Street Address
159 South Howard Street

City	State	ZIP Code	County
Croswell	MI	48422	Sanilac

Section/Town/Range (if address not available)

Source Description
Manufacturer of Granulated Sugar from Sugar Beets

☐ 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)
Michigan Sugar Company	

Mailing address (☐ check if same as source address)
122 Uptown Drive, Suite 300

City	State	ZIP Code	County	Country
Bay City	MI	48708	Bay	USA

☐ 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: B2876	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	
Meaghan Martuch			Air Compliance Manager	
Company Name & Mailing address (☐ check if same as source address)				
122 Uptown Drive, Suite 300				
City	State	ZIP Code	County	Country
Bay City	MI	48708	Bay	USA
Phone number		E-mail address		
989-686-0161		Meaghan.Martuch@michigansugar.com		

Contact 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		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name			Title	
Randy Lesniak			Factory Manager	
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
810-679-2241		Randy.Lesniak@michigansugar.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: B2876	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.

See AI-COMPLIANCE

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)

Randy Lesniak, Factory Manager

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.

Randy Lesniak — 4-18-2024

Signature of Responsible Official **Date**

SRN: B2876	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) 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 ☐ 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 n) 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. Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☒ No ☐ 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. Is a CAM plan included with this application? 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	☒ Yes ☐ No ☐ Yes ☒ No ☒ ☐
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? If Yes, then a copy must be submitted as part of the ROP renewal application.	☒ Yes ☐ No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? 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.	☐ Yes ☒ No

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

SRN: B2876	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)]
DVSUMBOILER1	5,000,000 BTU/hr summer boiler	R336.1282(2)(b)(i)	212(4)(c)
DVNATGASUNITHTRS	Natural-gas fired heaters for space heating	R336.1282(2)(b)(i)	212(4)(c)
DVHCLTANK	4,100 gallon hydrochloric acid storage tank	R336.1284(2)(i)	212(4)(d)

Comments:

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

SRN: B2876	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:
Question E1:
Refer to the mark-up copy of the existing ROP for the proposed changes.

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

SRN: B2876	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

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:

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

SRN: B2876	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		
☐ 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-**

SRN: B2876	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: B2876	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

Please refer to the redlined existing ROP for information regarding the Emission Limits associated with the EU-SUGARCOOLER

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

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

Please refer to the redlined existing ROP for information regarding the Pollution Control Equipment associated with the EU-SUGARCOOLER

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

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

SRN: B2876	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

Please refer to the redlined existing ROP for information regarding Stack/Vent Restrictions associated with the EU-SUGARCOOLER.

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

Please refer to the redlined existing ROP for information regarding the EU-RILEYBLR PM clarification.

Please refer to the redlined existing ROP Appendix 9. for information regarding the removal of the Fuel Sampling Plan.

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-**

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: B2876	Section Number (if applicable):

1. Additional Information ID
AI-PARTC

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Question C8:
The emission unit subject to CAM is EU-PULPDRYER. The CAM plan is attached to this application.

The Malfunction Abatement Plan (MAP) is attached to this application.

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: B2876	Section Number (if applicable):

1. Additional Information ID
AI-COMPLIANCE

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

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

The Croswell Factory is currently in compliance with the CEMS requirement associated with the existing ROP for EU-RILEYBLR; however, EGLE has alleged a historical violation of the CEMS monitoring requirements and the company is currently negotiating a settlement with EGLE. The company anticipates settlement of this issue with EGLE prior to the issuance of the ROP renewal. We believe we are in compliance with all other provisions of the ROP.

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 B2876

Stationary Source Name	
Michigan Sugar Company - Croswell Factory	
City: Croswell, MI 48422	County: Sanilac

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

CONTACT INFORMATION

Contact Name	Title
Meaghan Martuch	Air Compliance Manager
Phone number	**E-mail address**
989-686-0161 ext 2236	meaghan.martuch@michigansugar.com

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

Responsible Official Name	Title
Randy Lesniak	Factory Manager

Mailing address: 159 S. Howard St.

City	State	ZIP Code	County	Country
Croswell	MI	48422	Sanliac	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.

Randy Lesniak — Signature of Responsible Official

4-18-2024 — Date

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

EFFECTIVE DATE: November 5, 2019
REVISION DATE: June 2, 2021

ISSUED TO

Michigan Sugar Company - Croswell Factory

State Registration Number (SRN): B2876

LOCATED AT

159 South Howard Street, Croswell, Sanilac County, Michigan 48422

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B2876-2019a

Expiration Date: November 5, 2024

Administratively Complete ROP Renewal Application Due Between
May 5, 2023 and May 5, 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-B2876-2019a

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

_____
Chris Hare, Bay City 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 will be identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined or subsumed, or are 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.

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at this source, under Consent Order Number 2018-19, entered on December 7, 2018, and Consent Order Number 2019-11, entered on May 30, 2019, between the EGLE and the permittee.

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 5 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 states 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(8))**

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))**

Consent Orders

47. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the AQD Division Director.

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

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source 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 to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

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))**

NA

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 conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of the conditions as the date upon which the Termination Order is signed by the Chief of the AQD.

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).

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. If there are no conditions specific to individual emission units, this section will be left blank.

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-MURRAYBLR	A No. 6 fuel oil or natural gas-fired boiler, rated at 110 MMBTU per hour heat input (92,127 pounds of steam per hour), but permitted for 67,500 pounds of steam per hour (80.6 MMBTU/hr). Used to provide steam for beet sugar production and electrical generation. This emission unit is subject to 40 CFR Part 63, Subpart DDDDD. (PTI 19-76B)	1/1/1976 1/1/1990	FG-63-5D-EXNGBLR
EU-PULPDRYER	A natural gas or No. 6 fuel oil-fired pulp dryer used to dry pulp during beet processing. Controlled by a multi-clone. This emission unit is subject to 40 CFR Part 64 (CAM). (PTI 963-89)	1/1/1975 3/1/1990	NA
EU-RILEYBLR	A natural gas-fired boiler, rated at 179 MMBTU/hr, for steam production (up to 150,000 pounds per hour). The boiler is equipped with a low NOx burner and oxygen trim. Manufactured in 1969. Relocated from the Michigan Sugar Company – Carrolton Plant on July 21, 2015. This emission unit is subject to 40 CFR Part 63, Subpart DDDDD and 40 CFR Part 60, Subpart A, Subpart Db. (PTI 21-15B)	7/21/2015	FG-63-5D-EXNGBLR
EU-SUGARDRYER	A dryer utilizing steam heat to dry the thick juice to form warm sugar crystals. This is equipped with a dust collecting system consisting of a rotoclone dust collector with water injection system and a droplet separator. (PTI 21-15B)	4/1/1988	FG-SUGAR
EU-SUGARCOOLER	A cooler utilizing ambient air to temper sugar before silo storage. This is equipped with a dust collection system. (PTI 21-15B)	6/1/1991	FG-SUGAR

Commented [HC(1]: The AQD agrees to make this change to include Subpart A.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-SUGTRANSPORT	Various conveying scrolls and conveyor equipment used to convey and transport finished (food grade) table sugar. This is controlled with a dust collection system consisting of baghouses. (PTI 21-15B)	6/1/1991	FG-SUGAR
EU-NGLIMEKILN	A natural gas-fired vertical lime kiln, rated at 25.0 MMBTU/hr or less. The kiln produces carbon dioxide (CO_2) and calcium oxide for purification of sugar juice. The calcium oxide is introduced into the sugar extraction process as milk of lime to increase pH during initial purification. The CO_2 is used for additional purification and pH adjustment in the carbonation tanks.	1/19/2021	NA
EU-PELLETCOOLER	Cools beet pulp pellets coming off pellet mills before they are stored in bins, controlled with fabric filter.	6/1/1997 9/30/1997	FG-RULE290
EU-PELLETMILLDUST	Pulp pellet mills system is controlled ~~by~~ with a dust collector.	7/1/1991	FG-RULE290

EU-MURRAYBLR
EMISSION UNIT CONDITIONS

DESCRIPTION

A No.6 fuel oil or natural gas-fired boiler, rated at 110 MMBTU per hour heat input (92,127 pounds of steam per hour), but permitted for 67,500 pounds of steam per hour (80.6 MMBTU/hr). Used to provide steam for beet sugar production and electrical generation. This emission unit is subject to 40 CFR Part 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. (PTI 19-76B)

Commented [MM2]: Conversion to low nox burner with o2 trim????

Flexible Group ID: FG-63-5D-EXNGBLR

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. SO_2	1.1 pound per million BTUs of heat input[2]	24-hour period	EU-MURRAYBLR	SC V.1 & VI.3	**R 336.1201(3), R 336.1401 Table 42**
2. NOx	0.20 pounds per million BTU heat input[2]	24-hour period (applicable when firing natural gas)	EU-MURRAYBLR	SC III.1 & 2, VI.4 & 5	**R 336.1201(3)**
3. NOx	16.75 pph[2]	Hourly (applicable when firing natural gas)	EU-MURRAYBLR	SC VI.4	**R 336.1201(3)**
4. NOx	37.2 tpy[2]	12-month rolling time period determined at the end of each calendar month. (applicable when firing natural gas)	EU-MURRAYBLR	SC VI.4	**R 336.1201(3)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	372 MMCF/yr[2]	12-month rolling time period as determined at the end of each calendar month.	EU-MURRAYBLR	SC VI.4	**R 336.1201(3)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-MURRAYBLR at a load greater than 67,500 pounds steam per hour when firing natural gas.[2] **(R 336.1201(3))**

2. The permittee shall not operate EU-MURRAYBLR at a load greater than 67,500 pounds steam per hour when firing No. 6 fuel oil unless exhaust gases are discharged unobstructed vertically upwards to the ambient air from

a stack with a maximum diameter of 48 inches at an exit point not less than 100 feet above ground level.[2] **(R 336.1201(3), R 336.1402)**

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))**

1. For each delivery of fuel oil, the representative sulfur content analysis shall be either on file with permittee or supplied by the vendor at time of delivery. If fuel oil is fired in EU-MURRAYBLR, the permittee shall verify the vendor supplied sulfur content data at least once per campaign by conducting independent analysis in accordance with the Fuel Sampling Plan in Appendix 9, as may be amended with the approval of the District Supervisor. **(R 336.1213(3), R 336.1402)**

See Appendix 9

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 perform and record the results of a non-certified visible emissions check on EU-MURRAYBLR at least once per operating day when firing fuel oil. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9. Therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emission check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emission observation. If the results of the Method 9 visible emission observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

2. The permittee shall record the date, time, and duration that fuel oil is fired in EU-MURRAYBLR. **(R 336.1213(3))**

3. For each new sulfur content analysis, the permittee shall calculate the sulfur content of the fuel oil based upon: **(R 336.1213(3), R 336.1402)**
   a. The applicable % sulfur by weight;
   b. BTU's/lb or BTU/gallon;
   c. The calculated pound per MMBTU sulfur adjusted to 18,000 BTU.

4. The permittee shall monitor the natural gas usage in the boiler on a monthly basis using instrumentation acceptable to the District Supervisor of the Air Quality Division. Natural gas usage shall be recorded on a log and kept on file. **(R 336.1213(3))**

5. The permittee shall monitor all boiler steam generation data on a continuous basis using instrumentation acceptable to the District Supervisor of the Air Quality Division. Results of monitoring shall be recorded hourly on a chart recorder or log and kept on file. **(R 336.1213(3), R 336.1402)**

See Appendix 7

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.SVMURRAYSTACK	48[2]	80[2]	**R 336.1201(3), 40 CFR 52.21(c) and (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-PULPDRYER
EMISSION UNIT CONDITIONS

DESCRIPTION

A natural gas or No. 6 fuel oil-fired pulp dryer used to dry pulp during beet processing. Controlled by a multi-clone. This emission unit is subject to 40 CFR Part 64 (CAM). (PTI 963-89)

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Multiclone collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.10 pound per 1,000 pounds of exhaust gases[2]	Hourly*	EU-PULPDRYER	SC V.2, VI.1, 2, & 3	**R 336.1331(a) Paragraph 9, Consent Order AQD No. 2018-19**
2. SO_2	1.11 pounds per million BTUs heat input.[2]	Based upon a 24-hour period.	EU-PULPDRYER	SC V.1	**R 336.1201(3)**

*If a stack test is used to demonstrate compliance with this emission limit, the hourly emission rate during testing shall be determined by the average of the qualified test runs performed in accordance with the method requirements.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the pulp dryers unless the multiclone collector is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1910)**

2. All collected air contaminants shall be reintroduced into the pulp handling system to be incorporated into a product stream.[2] ([2] **(R 336.1370)**

3. The permittee shall perform the routine preventative maintenance indication in the Malfunction Abatement Plan (MAP) when the differential pressure of the multiple cyclone collector is outside the operating parameters as specified in the MAP. **(R 336.1213(3), Paragraph 11.A. Consent Order AQD No. 2018-19)**

4. The permittee shall not operate EU-PULPDRYER unless a malfunction abatement plan (MAP) as described in Rule 911(2), for EU-PULPDRYER operation, has been submitted and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a. A complete preventative maintenance program including identification 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;~~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;~~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 336.213(3), R 336.1911, R 336.1915, Paragraph 11.A. Consent Order AQD No. 2018-19)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the multiclone with instrumentation to continuously monitor the pressure drop across the multiclone.[2] **(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. For each delivery of fuel oil, the representative sulfur content analysis shall be either on file with the permittee or supplied by the vendor at time of delivery. If fuel oil is fired in EU-PULPDRYER, the permittee shall verify the vendor supplied sulfur content data at least once per campaign by conducting independent analysis in accordance with the Fuel Sampling Plan in Appendix 9, as may be amended with the approval of the District Supervisor. **(R 336.1213(3)**

2. Within three years of the most recent stack test, and thereafter every three years (34 - 38 months), the permittee shall verify the particulate emission rates from the process by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved USEPA Method listed in:

Pollutant	Test Method Reference*
PM	40 CFR Part 60, Appendix A, Method 5—Determination of particulate matter emissions from stationary sources; Part 10 of the Michigan Air Pollution Control Rules

Verification of emission rates includes the submittal of complete report of the test results. Stack testing should be conducted using method 5B or 5C, or EPA Method 17, or an alternative method approved in writing by the AQD. **(R 336.1331(2), R 336.1213(3) R 336.2001(a)(e))**
a. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date. **(R 336.1213(3))**
b. The permittee shall notify the District Supervisor or the Technical Programs Unit no less than 7 days prior to the anticipated test date. **(R 336.2001(3))**
c. The permittee shall submit a complete test report of the test results to the District Supervisor or the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

See Appendix 9

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 continuously measure pressure drop across the multiclone with differential pressure instrumentation and record at least three times per shift with at least one hour between readings as an indicator of proper operation of the multiclone. The indicator range is 2 to 8 inches of water pressure. **(40 CFR 64.6(c)(1)(i and ii), Paragraph 11.B. Consent Order AQD No. 2018-19)**

2. The differential pressure instrumentation of the multiclone shall be zeroed or calibrated once per year during shut down of the pulp dryer. **(40 CFR 64.6(c)(1)(iii), Paragraph 11.B. Consent Order AQD No. 2018-19)**

3. An excursion for the differential pressure instrumentation of the multiclone is a departure from the indicator range of 2 to 8 inches of water pressure. **(40 CFR 64.6(c)(2), Paragraph 11.B. Consent Order AQD No. 2018-19)**

4. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and ~~calculations~~calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

5. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(40 CFR 64.7(d))**

6. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

7. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**

8. For each new sulfur content analysis, the permittee shall calculate the sulfur content of the fuel oil based upon: **(R 336.1213(3))**
   a. The applicable % sulfur by weight;
   b. BTUs/lb or BTU/gallon;
   c. The calculated pound per MMBTU sulfur adjusted to 18,000 BTU.

See Appendix 7

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's 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's District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no exceedances in the

reporting period, then this report shall include a statement that there were no excursions and/or exceedances. The CAM monitoring downtime and excess emissions reports will be made on the same schedule as the site deviation and annual compliance schedule listed above. **(40 CFR 64.9(a)(2)(i))**

5. Each semiannual report of monitoring deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

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. SVDRYERSTACK	96[2]	100[2]	**R 336.1201(3)**

IX. OTHER REQUIREMENT(S)

1. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the ROP to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

2. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

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-RILEYBLR
EMISSION UNIT CONDITIONS

DESCRIPTION

A natural gas-fired boiler, rated at 179 MMBTU/hr, for steam production (up to 150,000 pounds per hour). The boiler is equipped with a low NOx burner and oxygen trim. The unit was manufactured in 1969 and was relocated from the Michigan Sugar Company – Carrollton Plant on July 21, 2015. This emission unit is subject to 40 CFR Part 60, Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR Part 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. (PTI 21-15B)

Flexible Group ID: FG-63-5D-EXNGBLR

POLLUTION CONTROL EQUIPMENT:

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	0.11 lb/MMBTU[2]	Hourly*	EU-RILEYBLR	SC V.1 & 2	**R 336.2802(4), 40 CFR 52.21(c) & (d)**
2. NOx	0.20 lb/MMBTU[2]	30-day rolling average basis	EU-RILEYBLR	SC VI.2 & 8	**40 CFR 60.44b**
3. NOx	86.24 tpy[2]	12-month rolling time period as determined at the end of each calendar month	EU-RILEYBLR	SC VI.5 & 6	**R 336.1205(1)(a) & (b), R 336.2802(4)**
4. PM (filterable)	1.46 tpy**, [2]	12-month rolling time period as determined at the end of each calendar month	EU-RILEYBLR	SC VI.5	**R 336.1205(1)(a) & (b), R 336.2802(4)**
5. PM~~10~~ (Total)	5.84 tpy**, [2]	12-month rolling time period as determined at the end of each calendar month	EU-RILEYBLR	SC VI.5	**R 336.1205(1)(a) & (b), R 336.2802(4)**
6. GHGs as CO_2e	92,428 tpy***, [2]	12-month rolling time period as determined at the end of each calendar month	EU-RILEYBLR	SC VI.5	**R 336.1205(1)(a) & (b), R 336.2802(4)**

*If a stack test is used to demonstrate compliance with this emission limit, the hourly emission rate during testing shall be determined by the average of the qualified test runs performed in accordance with the method requirements.

**These emission limits are based on the following emission factors:
PM (filterable)= 1.9 lb/MMscf
PM~~10~~(total) = 7.6 lb/MMscf

***This calculation is based upon CO_2, methane, and N2O emission factors from AP-42.

Commented [JP3]: From AP-42: "*All PM (total, condensible, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM10, PM2.5 or PM1 emissions. Total PM is the sum of the filterable PM and condensible PM. Condensible PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.*"

Commented [HC(4R3]: The AQD is not allowed or doesn't have authority to make changes to limits or pollutants associated with limits through the renewable operating process. These changes would have to occur with a permit to install application requesting the changes.

Commented [je5R3]: We believe the permit conditions are in error and should be corrected. The Company is not seeking relaxed emission rates, but rather factual basis for the emissions – that is AP-42.

II. MATERIAL LIMITS

1. The permittee shall only burn natural gas in EU-RILEYBLR.[2] **(R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1401, R 336.1702(a), R 336.2802(4), 40 CFR 52.21(c) & (d), 40 CFR Part 60, Subpart Db)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EU-RILEYBLR unless an approved malfunction abatement plan (MAP), as described in Rule 911(2), is implemented and maintained. An approved MAP meets the requirement that the emission unit and the emission control equipment are installed, maintained, and operated in a satisfactory manner. The MAP shall, at a minimum, specify the following:
   a. A complete preventative maintenance program including identification 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;~~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.[2] **(R 336.1205(1)(a) & (b), R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The maximum design heat input capacity for EU-RILEYBLR shall not exceed 179 MMBTU per hour on a fuel heat input basis.[2] **(R 336.1205(1)(a) & (b), R 336.2802(4), 40 CFR 52.21(c) & (d), 40 CFR Part 60, Subpart Db)**

2. The permittee shall not operate EU-RILEYBLR unless the low NOx burners are installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2802(4), 40 CFR 52.21(c) & (d))**

3. The permittee shall install, calibrate, maintain, and operate, in a satisfactory manner, a device to monitor and record the calendar day natural gas usage rate when in operation for EU-RILEYBLR on a continuous basis.[2] **(R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1702(a), R 336.2802(4), 40 CFR 52.21(c) & (d), 40 CFR 60.49b(d))**

4. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, devices to monitor and record the NOx emissions, and oxygen (O_2), or carbon dioxide (CO_2), content of the exhaust gas from EU-RILEYBLR on a continuous basis.[2] **(R 336.1205(1)(a) & (b), R 336.2802(4), 40 CFR 52.21(c) & (d), 40 CFR 60.48b)**

V. TESTING/SAMPLING

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

1. Upon request from the AQD District Supervisor, the permittee may be required to verify NOx emission rates, as specified in SC I.1, from EU-RILEYBLR by testing at owner's expense, in accordance with the Department requirements. No less than 60 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] **(R 336.2001, R 336.2003, R 336.2004, R 336.2802(4), 40 CFR 52.21(c) & (d))**

2. Within one year of the issuance of this permit, and between a 24 to 37-month period thereafter, the permittee shall verify NOx emission rates from EU-RILEYBLR by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD for review and approval. Verification of emission rates includes the submittal of a complete test report of the results to the AQD within 60 days following the last date of the test. **(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 30th 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 336.2802(4), 40 CFR 60.49b(d))**

2. The permittee shall continuously monitor and record, in a satisfactory manner, the NOx emissions and the O_2, or CO_2, emissions from the exhaust gas from EU-RILEYBLR. The permittee shall operate the 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.2.[2] **(R 336.1205(1)(a) & (b), R 336.2802(4), 40 CFR 52.21(c) & (d), 40 CFR Part 60, Subpart Db)**

3. The permittee shall keep, in a format acceptable to the AQD District Supervisor, calendar day, calendar month, and 12-month rolling natural gas usage records in million cubic feet for EU-RILEYBLR. 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 336.2802(4), 40 CFR 60.49b(d))**

4. The permittee shall calculate and keep, in a satisfactory manner, records of the monthly and 12-month rolling annual capacity factor for natural gas for EU-RILEYBLR. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(40 CFR 60.49b(d))**

5. The permittee shall calculate and keep, in a satisfactory manner, monthly and 12-month rolling total NOx, PM, PM10, and CO_2e mass emission records for EU-RILEYBLR, as required by SC I.3, SC I.4, SC I.5, and SC I.6. These calculations are based upon applicable emission factors, stack test and/or CEMS data, maximum design parameters, and hours of operation. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1205(1)(a) & (b), R 336.2802(4))**

6. The permittee shall calculate 12-month rolling NOx emissions according to the equation in Appendix 7 to verify compliance with SC I.3. **(R 336.1213(3))**

7. The permittee shall keep, in a satisfactory manner, records of the fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the natural gas meets the definition of natural gas defined in 40 CFR 60.41b for EU-RILEYBLR on file at the facility and make them available to the Department upon request.[2] **(40 CFR Part 60, Subpart Db, 40 CFR 60.49b(r)(1))**

8. 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. Verification of heat input capacity required to show compliance with SC IV.1;
   d. Identification, type, and the amounts of fuel combusted in EU-RILEYBLR on a calendar day basis;
   e. All records required by 40 CFR 60.7 and 40 CFR 60.49b;
   f. 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, R 336.2802(4), 40 CFR 52.21(c) & (d), 40 CFR 60.7(f), 40 CFR 60.49b(g), 40 CFR Part 60, Subparts Db)**

9. Within thirty (30) days after the effective date of Consent Order AQD No. 2019-11, the Company shall submit a Quality Assurance (QA) manual to the AQD Technical Programs Unit Supervisor for review and approval. The QA manual should include the following:[1] **(Paragraph 10.A. Consent Order AQD No. 2019-11)**
   a. A list of individuals responsible for maintaining and monitoring the CEMS and their duties;
   b. Daily, weekly, monthly, and quarterly CEMS check lists;
   c. A procedure for responding to a failed daily calibration;
   d. System alarms and procedures for responding to the alarms;
   e. A list of repair and replacement parts to be maintained on site;
   f. A system of documenting system maintenance, downtime, manual calibrations, analyzer adjustments, repairs, cylinder gas replacement, and the individual responsible to perform the documentation.

10. The QA manual shall take effect upon written approval from the AQD Technical Programs Unit Supervisor or sixty (60) days after submittal, whichever is earlier. If within sixty (60) days of submittal of the QA manual, the AQD Technical Programs Unit Supervisor provides written notice that the QA manual is not adequate for its stated purposes, the Company shall resubmit the QA manual to address the deficiency within thirty (30) days of the deficiency notice.[1] **(Paragraph 10.B. Consent Order AQD No. 2019-11)**

11. Upon approval of the QA manual, the Company shall implement the QA manual as approved and maintain the records and procedures demonstrating that the QA manual is being implemented according to its terms and conditions. Any subsequent revision to the QA manual shall be incorporated by reference into Consent Order AQD No. 2019-11 and shall be made and enforceable part of the Consent Order.[1] **(Paragraph 10.C. Consent Order AQD No. 2019-11)**

See Appendix 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 all reports required by the federal Standards of Performance for New Stationary Sources, 40 CFR 60.49b, as applicable. The permittee shall submit these reports to the AQD District Supervisor within the time frames specified in 40 CFR 60.49b and/or 40 CFR 60.7.[2] **(40 CFR 60.7, 40 CFR 60.49b(h) & (i))**

See Appendix 8

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/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-RILEYBLR	113[2]	185[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**

IX. OTHER REQUIREMENTS

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

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-NGLIMEKILN
EMISSION UNIT CONDITIONS

DESCRIPTION

A natural gas-fired vertical lime kiln, rated at 25.0 MMBTU/hr or less. The kiln produces carbon dioxide (CO_2) and calcium oxide for purification of sugar juice. The calcium oxide is introduced into the sugar extraction process as milk of lime to increase pH during initial purification. The CO_2 is used for additional purification and pH adjustment in the carbonation tanks.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Limestone fed to kiln	91,250 tpy[2]	12-month rolling time period as determined at the end of each calendar month	EU-NGLIMEKILN	SC VI.1	**R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d)**

2. The permittee shall not burn any fuels other than natural gas in EU-NGLIMEKILN.[2] **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Except during startup, shutdown, or malfunction; the permittee shall not operate the lime kiln unless the carbonation system is operating and receiving combustion gases from the lime kiln.[2] **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d))**

2. The permittee shall not vent directly to atmosphere from EU-NGLIMEKILN to SV-NGLIMEKILN (lime kiln direct venting stack) for more than 720 hours per year.[2] **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity of EU-NGLIMEKILN shall not exceed 25.0 MMBTU per hour on a fuel heat input basis.[2] **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

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 monitor and record, in a satisfactory manner, the amount of limestone (in tons) fed to EU-NGLIMEKILN on a monthly and 12-month rolling time period basis. **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d))**

2. The permittee shall record the date, time, and duration that EU-NGLIMEKILN was vented directly to the atmosphere, and keep records of the total hours that EU-NGLIMEKILN was vented directly to the atmosphere on a monthly and 12-month rolling time period basis **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d))**

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 of EU-NGLIMEKILN, 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 EU-NGLIMEKILN.[2] **(R 336.1201(7)(a))**

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-NGLIMEKILN (lime kiln direct venting stack)	24[2]	77[2]	**R 336.1225, 40 CFR 52.21(c) & (d)**
2. SV-PRESSHEADER (Pressure header vent)	NA[2]	NA[2]	**R 336.1201(3)**

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).

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. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

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-RULE290	Pulp handling equipment.	EU-PELLETMILLDUST EU-PELLETCOOLER
FG-SUGAR	Equipment utilized in the forming of sugar crystals to the storage of final product. (PTI 21-15B)	EU-SUGARDRYER EU-SUGARCOOLER EU-SUGTRANSPORT
FG-635D-EXNGBLR	Gas 1 Fuel Subcategory requirements for existing Boilers at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These existing boilers must comply with this subpart no later than January 31, 2016. These conditions apply to boilers with a heat input capacity of greater than or equal to 10 MMBTU per hour. (PTI 21-15B)	EU-MURRAYBLR EU-RILEYBLR

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: EU-PELLETCOOLER, EU-PELLETMILLDUST

POLLUTION CONTROL EQUIPMENT

Rule 290 may also include any air pollution control device serving any Rule 290 exempt equipment, such as but not limited to, baghouses, scrubbers, or other air pollution control equipment.

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(a)(i))**

2. Each emission unit that the total uncontrolled or controlled emissions of 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(a)(ii))**
   a. For noncarcinogenic 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 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**
   b. For noncarcinogenic 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 microgram 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(a)(ii)(B))**
   c. For carcinogenic 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(a)(ii)(C))**
   d. The emission unit shall not emit any 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(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(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 an exhaust gas flow rate more than 30,000 actual cubic feet per minute; **(R 336.1290(a)(iii)(A))**
   b. The visible emissions from the emission unit are not more than 5 percent opacity in accordance with the methods contained in Rule 303; **(R 336.1290(a)(iii)(B))**
   c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(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)**

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 EGLE, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or an alternative format that is approved by the AQD District Supervisor:
   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(a)(ii) and (iii); **(R 336.1213(3))**
   e. 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. **(R 336.1213(3), R 336.1290(c))**

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.
   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(b), R 336.1213(3))**
   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(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(a)(iii), the permittee shall perform a visible emission observation of each stack or vent during routine operating conditions at least once per campaign. 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))**

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-SUGAR
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Equipment utilized in the forming of sugar crystals to the storage of final product. (PTI 21-15B)

Emission Units: EU-SUGARDRYER, ~~EU-SUGARCOOLER~~, EU-SUGTRANSPORT

POLLUTION CONTROL EQUIPMENT

EU-SUGARDRYER: rotoclone dust collector with water injection system and a droplet separator.
EU-SUGARCOOLER: dust collection system.
EU-SUGTRANSPORT: dust collection system consisting of baghouses.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb/ 1,000 lbs of gas*, 2	Hourly**	EU-SUGARDRYER	SC III.1, VI.3, & V.1	**R 336.1205(1)(a) & (b), R 336.1331**
2. PM	29.57 tpy2	12-month rolling time period as determined at the end of each calendar month	EU-SUGARDRYER	SC VI.2	**R 336.1205(1)(a) & (b), R 336.2802(4)**
3. PM	0.01 lb/ 1,000 lbs of gas*, 2	Hourly**	EU-SUGARCOOLER	SC III.1, VI.3, & V.1	**R 336.1205(1)(a) & (b), R 336.1331**
4. PM	2.76 tpy2	12-month rolling time period as determined at the end of each calendar month	EU-SUGARCOOLER	SC VI.2	**R 336.1205(1)(a) & (b), R 336.2802(4)**
5. PM	0.01 lb/ 1,000 lbs of gas*, 2	Hourly**	EU-SUGTRANSPORT	SC III.1, VI.3 & V.1	**R 336.1205(1)(a) & (b), R 336.1331**
6. PM	1.18 tpy2	12-month rolling time period as determined at the end of each calendar month	EU-SUGTRANSPORT	SC VI.2	**R 336.1205(1)(a) & (b), R 336.2802(4)**
7. PM10	26.61 tpy2	12-month rolling time period as determined at the end of each calendar month	EU-SUGARDRYER	SC VI.2	**R 336.1205(1)(a) & (b), R 336.2802(4), 40 CFR 52.21(c) & (d)**
~~8. PM10~~	~~2.48 tpy2~~	~~12-month rolling time period as determined at the end of each calendar month~~	~~EU-SUGARCOOLER~~	~~SC VI.2~~	~~**R 336.1205(1)(a) & (b), R 336.2802(4), 40 CFR 52.21(c) & (d)**~~
9. PM10	1.06 tpy2	12-month rolling time period as determined at the end of each calendar month	EU-SUGTRANSPORT	SC VI.2	**R 336.1205(1)(a) & (b), R 336.2802(4), 40 CFR 52.21(c) & (d)**

*Calculated to 50% excess air.

Commented [JP6]: The sugar cooler system installed does not utilize cooling air and therefore does not have a dust collection system associated with the cooling step. The discharge into the cooler and discharge out of the cooler is better characterized as "sugar transport."

Commented [HC(7R6]: The AQD does not have authority to make these types of changes through the renewable operating process. These changes would need to be made by submitting a permit to install application. This response applies for the next three comments below for FG-SUGAR.

Commented [je8R6]: Changes to the sugar cooler are not deemed to be a modification subject to Rule 201, since the change resulted in a reduction in emissions. The dust collector has been removed from the sugar cooler process and this change is not subject to Rule 201. We believe the district can make corrections (removal of equipment from the ROP) which is authorized by the Part 2 ROP rules.

Commented [JP9]: As with the comment above, there is no air used in cooling the sugar, as installed and therefore this emission limit is no longer applicable and should be updated in this renewal action.

Commented [JP10]: Same comment as above. There is no air used in the cooling step and therefore the emissions limit is no longer applicable and should be updated in this renewal action.

**If a stack test is used to demonstrate compliance with this emission limit, the hourly emission rate during testing shall be determined by the average of the qualified test runs performed in accordance with the method requirements.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any unit of FG-SUGAR unless an approved malfunction abatement plan (MAP), as described in Rule 911(2), is implemented and maintained. An approved MAP meets the requirement that the emission unit and the emission control equipment are installed, maintained, and operated in a satisfactory manner. The MAP shall, at a minimum, specify the following:
   a. A complete preventative maintenance program including identification 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.[2] **(R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU-SUGARDRYER unless the rotoclone dust collector with water injection system and a droplet separator are installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1205(1)(a) & (b), R 336.1331, R 336.1910, R 336.2802(4), 40 CFR 52.21(c) & (d))**

2. ~~The permittee shall not operate EU-SUGARCOOLER unless the dust collection system is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1205(1)(a) & (b), R 336.1331, R 336.1910, R 336.2802(4), 40 CFR 52.21(c) & (d))**~~

3. The permittee shall not operate EU-SUGTRANSPORT unless the dust collection system is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1205(1)(a) & (b), R 336.1331, R 336.1910, R 336.2802(4), 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Upon request from the AQD District Supervisor, the permittee may be required to verify PM emission rates from one or each unit of FG-SUGAR (EU-SUGARDRYER, ~~EU-SUGARCOOLER~~, and EU-SUGTRANSPORT), by testing at owner's expense, in accordance with Department requirements. No less than 60 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] **(R 336.1205(1)(a) & (b), R 336.1331, 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 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th 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 336.2802(4), 40 CFR 52.21(c) & (d))**

2. The permittee shall calculate and keep, in a satisfactory manner, monthly and 12-month rolling PM and PM10, mass emission records, as required by SC I.2, SC I.4, and SC I.6 through SC I.9, for EU-SUGARDRYER, ~~EU-SUGARCOOLER~~, and EU-SUGTRANSPORT. The PM calculations are based upon applicable emission factors, stack test results, maximum design parameters, and hours of operation. The PM10 calculations are based upon the following:

   $PM10\ (tpy) = F * PM(tpy)$

   Where F = the fraction of PM considered to be PM10; this value should be 90 percent unless otherwise approved by the District Supervisor.

   The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1205(1)(a) & (b), R 336.2802(4), 40 CFR 52.21(c) & (d))**

3. The permittee shall keep, in a satisfactory manner, a record of all service, maintenance and equipment inspections for all control technology associated with FG-SUGAR. The record shall include the description, reason, date and time of the service, maintenance or inspection. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

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 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/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1.SVSUGARDRYER[b]	18 X 20[2]	38[2]	**40 CFR 52.21(c) & (d)**
2.~~SVSUGARCOOLER~~[b]	~~20~~[2]	~~22~~[2]	**40 CFR 52.21(c) & (d)**
3.SVSUGTRANSPORT[c]	24[2]	37[2]	**40 CFR 52.21(c) & (d)**

[b]Horizontal discharge.
[c]Equipped with a chimney rain cap.

Commented [JP11]: There is no stack for the sugar cooler since it is not in contact with air. We believe this update should be included in this ROP renewal action.

IX. OTHER REQUIREMENTS

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).

FG-63-5D-EXNGBLR
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Gas 1 Fuel Subcategory requirements for existing boilers at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These existing boilers demonstrated compliance with this subpart by the compliance date of January 31, 2016. These conditions apply to boilers with a heat input capacity of greater than or equal to 10 MMBTU per hour. (PTI 21-15B)

Commented [JP12]: Company requests this section be updated to include the "new" EGLE 5D template

Commented [HC(13R12]: The AQD agrees to include the latest template for this boiler MACT.

Emission Units: EU-MURRAYBLR, EU-RILEYBLR

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

1. FG-63-5D-EXNGBLR shall only apply to boilers that only burn fuels as allowed in the Unit designed to burn gas 1 subcategory definition in 40 CFR 63.7575.[2] **(40 CFR 63.7499(l))**

Commented [JP14]: This statement is an applicability statement and not a material limit. See "new" EGLE 5D template.

Commented [HC(15R14]: The AQD agrees to include the latest template for this boiler MACT.

III. PROCESS/OPERATIONAL RESTRICTIONS

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 and SC III.3. The permittee must meet these requirements at all times the affected unit is operating.[2] **(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, for each boiler at the source.[2] **(40 CFR 63.7500(a)(1), 40 CFR 63.7505(a))**
   b. At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490, stated in SC IX.1), 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.[2] **(40 CFR 63.7500(a)(3))**

Commented [JP16]: See "new" 5D template.

Commented [HC(17R16]: The AQD agrees to include the latest template for this boiler MACT.

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

3. Boilers in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 of 40 CFR Part 63, Subpart DDDDD, or the operating limits in Table 4 of 40 CFR Part 63, Subpart DDDDD.[2] **(40 CFR 63.7500(e))**

Commented [JP18]: See "new" template.

Commented [HC(19R18]: The AQD agrees to include the latest template for this boiler MACT.

4. 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.5, no later than the compliance date specified in 40 CFR 63.7495, stated in SC IX.3 (no later than January 31, 2016). 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.3 (no later than January 31, 2016).[2] **(40 CFR 63.7510(e))**

Commented [JP20]: In new template this is under section III and is listed as optional and can be deleted is it has been completed.

Commented [HC(21R20]: The AQD agrees to include the latest template for this boiler MACT.

5. The permittee must conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.5.a, or 5-year performance tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.b. 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 5-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))**

Commented [JP22]: Revise wording to "new" template.

IV. DESIGN/EQUIPMENT PARAMETERS

1. FG-63-5D-EXNGBLR shall apply only to boilers with a heat input capacity of greater than or equal to 10 MMBTU per hour.[2] **(40 CFR Part 63, Subpart DDDDD)**

Commented [JP23]: Not in new template.

Commented [HC(24R23]: The AQD agrees to include the latest template for this boiler MACT.

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 must keep records according to paragraph (a)(1) of 40 CFR 63.7555, as listed below.[2] **(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).[2] **(40 CFR 63.7555(a)(1))**

2. If the permittee operates a unit in the unit designed to burn gas 1 subcategory that is subject to 40 CFR Part 63, Subpart DDDDD, and the permittee uses an alternative fuel 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.[2] **(40 CFR 63.7555(h))**

Commented [JP25]: We need to discuss the potential for alternative fuels.

Commented [HC(26R25]: The AQD agrees to have discussions if necessary.

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).[2] **(40 CFR 63.7560(a))**

4. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.[2] **(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 2 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 3 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. The permittee must meet the applicable 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.11, and in Subpart A of 40 CFR 63.[2] **(40 CFR 63.7495(d))**

5. 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 is an accurate depiction of the facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.[2] **(40 CFR 63.7530(e))**

6. The permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e), stated in SC VII.9.[2] **(40 CFR 63.7530(f))**

7. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.9(b) through (h) that apply to the permittee by the dates specified.[2] **(40 CFR 63.7545(a))**

8. As specified in 40 CFR 63.9(b)(2), if the permittee starts up the affected source before January 31, 2013, the permittee must submit an Initial Notification not later than 120 days after January 31, 2013.[2] **(40 CFR 63.7545(b))**

9. If the permittee is required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530, the permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler, the permittee must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler at the facility according to 40 CFR 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. If the permittee is not required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8) and must be submitted within 60 days of the compliance date specified at 40 CFR 63.7495(b), specified in SC IX.3.[2] **(40 CFR 63.7545(e))**
   a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR Part 63, Subpart DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the USEPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the compliance demonstration.[2] **(40 CFR 63.7545(e)(1))**
   b. In addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:[2]
      i. "This facility completed the required initial tune-up for all the boilers and process heaters covered by 40 CFR Part 63, Subpart DDDDD at this site according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)."[2] **(40 CFR 63.7545(e)(8)(i))**
      ii. "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)."[2] **(40 CFR 63.7545(e)(8)(ii))**
      iii. Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit."[2] **(40 CFR 63.7545(e)(8)(iii))**

10. If the permittee operates a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to 40 CFR Part 63, Subpart DDDDD, and 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:[2]
    a. Company name and address;[2] **(40 CFR 63.7545(f)(1))**
    b. Identification of the affected unit;[2] **(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;[2] **(40 CFR 63.7545(f)(4))**

e. Dates when the alternative fuel use is expected to begin and end.[2] **(40 CFR 63.7545(f)(5))**

11. If the permittee has switched fuels or made a physical change to the boiler 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:[2] **(40 CFR 63.7545(h))**
    a. The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, stated in SC IX.1, 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.[2] **(40 CFR 63.7545(h)(1))**
    b. The currently applicable subcategory under 40 CFR Part 63, Subpart DDDDD.[2] **(40 CFR 63.7545(h)(2))**
    c. The date upon which the fuel switch or physical change occurred.[2] **(40 CFR 63.7545(h)(3))**

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

13. Unless the USEPA 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 IX.5.a, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.b, and not subject to emission limits or operating limits, the permittee may submit only an annual or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report.[2] **(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 in 40 CFR 63.7495, stated in SC IX.3, and ending on December 31 within 1 or 5 years, as applicable, after the compliance date that is specified for the source in 40 CFR 63.7495, stated in SC IX.3.[2] **(40 CFR 63.7550(b)(1))**
    b. The first annual or 5-year compliance report must be postmarked or submitted no later than March 15.[2] **(40 CFR 63.7550(b)(2) & (5))**
    c. Each subsequent annual and 5-year compliance reports must cover the applicable 1- or 5-year periods from January 1 to December 31.[2] **(40 CFR 63.7550(b)(3))**
    d. Each subsequent annual and 5-year compliance reports must be postmarked or submitted no later than March 15.[2] **(40 CFR 63.7550(b)(4) & (5))**

14. A compliance report must contain the following information depending on how the permittee chooses to comply with the applicable 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), (xiv), and (xvii) of 40 CFR 63.7550.[2] **(40 CFR 63.7550(c)(1))**
    b. 40 CFR 63.7550(c)(5) is as follows:
        i. Company and Facility name and address;[2] **(40 CFR 63.7550(c)(5)(i))**
        ii. Process unit information, emissions limitations, and operating parameter limitations;[2] **(40 CFR 63.7550(c)(5)(ii))**
        iii. Date of report and beginning and ending dates of the reporting period;[2] **(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.5.a, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.b. Include the date of the most recent burner inspection if it was not done annually or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.[2] **(40 CFR 63.7550(c)(5)(xiv))**
        v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.[2] **(40 CFR 63.7550(c)(5)(xvii))**

15. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below.[2] **(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 USEPA via the CEDRI. (CEDRI can be accessed through the USEPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the

electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*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 becomes available in CEDRI.[2] **(40 CFR 63.7550(h)(3))**

See Appendix 8

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. 40 CFR Part 63, Subpart DDDDD applies to existing affected sources as described in paragraph (a)(1) of 40 CFR 63.7490, as listed below.[2] **(40 CFR 63.7490(a))**
   a. The affected source of 40 CFR Part 63, Subpart DDDDD is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in 40 CFR 63.7575.[2] **(40 CFR 63.7490(a)(1))**

2. A boiler is existing if it is not new or reconstructed, as defined below:[2] **(40 CFR 63.7490(d))**
   a. A boiler is new if the permittee commences construction of the boiler after June 4, 2010, and the permittee meets the applicability criteria at the time the permittee commences construction.[2] **(40 CFR 63.7490(b))**
      i. Where construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location.[2] **(40 CFR 63.2)**
   b. A boiler is reconstructed if the permittee meets the reconstruction criteria as defined in 40 CFR 63.2, the permittee commences reconstruction after June 4, 2010, and the permittee meets the applicability criteria at the time the permittee commences reconstruction.[2] **(40 CFR 63.7490(c))**

3. If the permittee has an existing boiler, the permittee must comply with 40 CFR Part 63, Subpart DDDDD no later than January 31, 2016, except as provided in 40 CFR 63.6(i).[2] **(40 CFR 63.7495(b))**

4. For affected sources (as defined in 40 CFR 63.7490, stated in SC IX.1) 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.5.a, and the schedule described in 40 CFR 63.7540(a)(13), stated in SC IX.5.c, for units that are not operating at the time of their scheduled tune-up.[2] **(40 CFR 63.7515(g))**

5. 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:[2] **(40 CFR 63.7540(a))**
   a. If the boiler has a heat input capacity of 10 million BTU per hour or greater, the permittee must conduct an annual tune-up of the boiler to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540, as listed below. The permittee must conduct the tune-up 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 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.[2] **(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 the 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.[2] **(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.[2] **(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.[2] **(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.[2] **(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.[2] **(40 CFR 63.7540(a)(10)(v))**

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, as listed below.[2] **(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.[2] **(40 CFR 63.7540(a)(10)(vi)(A))**

B. A description of any corrective actions taken as a part of the tune-up.[2] **(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.[2] **(40 CFR 63.7540(a)(10)(vi)(C))**

b. If the boiler 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 5 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 every 5 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 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.[2] **(40 CFR 63.7540(a)(12))**

c. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup.[2] **(40 CFR 63.7540(a)(13))**

6. 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.[2] **(40 CFR 63.7565)**

7. If the permittee decides to burn No. 6 fuel oil in EU-MURRAYBLR, the permittee must submit a permit modification request to incorporate the relevant components of Subpart DDDDD of 40 CFR Part 63 prior to burning No. 6 fuel oil. **(40 CFR Part 63, Subpart DDDDD)**

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) for EU-RILEYBLR only. This condition was not established pursuant to rule 201(1)(a) for EU-MURRAYBLR.

Commented [JP27]: This language does not match the "new" 5D template.

Commented [HC(28R27]: The AQD agrees to include the latest template for this boiler MACT.

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 was in compliance with all applicable requirements and the permittee would continue to comply with all terms and conditions of this ROP. However, noncompliance issues were discovered after the ROP application was submitted. As a result, an Administrative Consent Order was signed by Michigan Sugar Company – Croswell Factory (MSC) for the EU-RILEYBLR violation.

EU-RILEYBLR (SC VI.2): MSC is required to continuously monitor nitrogen oxide emissions with a continuous emission monitoring system. The excess emission and monitor availability report for the third quarter of 2018 showed monitor downtime of 92.7% for the quarter. The monitor has been repaired/replaced and is in proper operating condition.

A Schedule of Compliance for any applicable requirements that the permittee is not in compliance with at the time of the ROP issuance is supplemental to, and shall not sanction non-compliance with, the underlying applicable requirements on which it is based.

The permittee shall adhere to this schedule of compliance.

Schedule of Compliance

The following schedule of compliance conforms with the provisions of Rule 119(a) and Rule 213(4):

Emission Unit/ Flexible Group ID and Condition No.	Applicable Requirement	Remedial Measure	Required Action	Milestone Date	Progress Reports
EU-RILEYBLR, VI.2	40 CFR 52.21(c) & (d), 40 CFR 60.49b(d)	Maintain a Quality Assurance (QA) manual	The company shall submit a QA manual to the AQD Technical Programs Unit (TPU) Supervisor for review and approval. (AQD No. 2019-11, Paragraph 10.A.) The QA manual shall take effect upon written approval from the AQD TPU Supervisor or sixty (60) days after submittal, whichever is earlier. If within sixty (60) days of submittal of the QA manual the AQD, TPU Supervisor provides written notice that the QA manual is not adequate for its stated purposes, the Company shall resubmit the QA manual to address the deficiency within thirty (30) days of the deficiency notice. (AQD No. 2019-11 Paragraph 10.B.)	Within thirty (30) days after the effective date of Consent Order AQD No. 2019-11. Within sixty (60) days after submittal of the QA manual or upon written approval from the AQD TPU Supervisor.	NA

Commented [je29]: We assert this compliance item has been satisfied and can be removed.

Emission Unit/ Flexible Group ID and Condition No.	Applicable Requirement	Remedial Measure	Required Action	Milestone Date	Progress Reports
			Upon approval of the QA manual, the Company shall implement the QA manual as approved and maintain the records and procedures demonstrating that the QA manual is being implemented according to its terms and conditions. Any subsequent revision to the QA manual shall be incorporated by reference into Consent Order AQD No. 2019-11 and shall be made and enforceable part of the Consent Order. (AQD No. 2019-11, Paragraph 10.C.)		

Appendix 3. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU-RILEYBLR:

NOx Monitoring
Continuous Emission Monitoring System (CEMS) Requirements

For an existing CEMS: The permittee has satisfied the installation and testing requirements, therefore items 1 – 4 have been completed and do not apply.

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.

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

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

Pollutant	Applicable PS
NOx	2
O_2 & CO_2	3

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

Commented [je30]: This appears in the past and can be eliminated or updated to state the condition has been satisfied.

Commented [je31]: See comment above.

Commented [je32]: See comment above

Commented [je33]: See comment above

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.

7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. 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 NOx/MMBTU. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
   b. A report of all periods of CEMS downtime and corrective action.
   c. A report of the total operating time of EU-RILEYBLR during the reporting period.
   d. A report of any periods that the CEMS exceeds the instrument range.
   e. If no exceedances or CEMS 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-B2876-2013. 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-B2876-2013 is being reissued as Source-Wide PTI No. MI-PTI-B2876-2019.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
21-15B*	NA	Corrected the retrofitted burner size from 175.5 MMBTU/hr to 179 MMBTU/hr for the Riley Boiler.	EU-RILEYBLR
21-15A*	NA	Relocation of the Riley Boiler and 50% increase in sugar production.	EU-RILEYBLR FG-SUGAR

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-B2876-2019.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
90-20	202100032 / June 2, 2021	This Minor Modification was to remove references to existing kilns (EU-LIMEKILN1, EU-LIMEKILN2, and FG-LIMEKILNS) since they have been removed from the property, and to incorporate PTI Number 90-20 which adds the new natural gas lime kiln to the facility.	EU-NGLIMEKILN

Appendix 7. Emission Calculations

EU-RILEYBLR

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EU-RILEYBLR:

Natural gas heat content = 1.02 MMBTU/MCF
NOx ton per year emissions =

(MCF natural gas/day) X 1.02 MMBTU/MCF X (Most recent stack test results) = NOx lb/day

Then each month is summed, converted to tons, and followed by a 12-month rolling total.

EU-MURRAYBLR, EU-PULPDRYER

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EU-MURRAYBLR and EU-PULPDRYER when firing one or more of these units on fuel oil:

Compliant fuel oil has a heat content of 18,000 BTU/pound at 1.0 wt. % sulfur content. If the heat value of the fuel oil is other than 18,000 BTU/pound, the maximum allowed sulfur content shall be determined by the following equation:

Maximum allowed Sulfur content in percent by weight =

1.11 lbs SO_2/1,000,000 BTU X (actual heat value in BTU per pound) X 100% X 1 lbs S/2 lbs SO_2 = wt. % sulfur

FG-LIMEKILNS - Determining Compliant Coke

Commented [je34]: No coke is used in the limekiln, therefore the conversion to natural gas calls for the elimination of this fuel compliance section.

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FG-LIMEKILNS:

Compliant coal/coke has a heat content of 9,400 BTU/pound at 0.8 wt. % sulfur content. The maximum allowed sulfur content shall be determined by the following equation:

Maximum allowed Sulfur content in percent by weight =

1.7 lbs SO_2/1,000,000 BTU X (actual heat value in BTU per pound) X 100% X 1 lbs S/2 lbs SO_2 = wt. % sulfur

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the 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.

Appendix 9. Fuel Sampling Plan

Lime Kiln Coke or Anthracite Coal Sampling Plan/Options
Michigan Sugar Company - Croswell Factory
Croswell, Michigan

Commented [JP35]: The coal/coke lime kiln has been replaced with a natural gas fired unit and thus this appendix is no longer applicable.

Commented [HC(36R35]: The AQD agrees with your comment and will remove the language in this appendix.

The Michigan Department of Environment, Great Lakes, and Energy has asked for a coke and/or anthracite coal sampling protocol that can be used whenever it desires a coke and/or anthracite coal sampling at the Croswell factory or requests that the company conduct the coke and/or anthracite coal sampling. In the following the term coke will be meant to include or in place of anthracite coal as appropriate.

Two options are being described; a single composite sampling and a five-day composite sampling. Each is designed to provide representative results for short term sampling. In the event the single composite sampling results in a preliminary indication that the sulfur content of the coke exceeds permitted limits, then the Company may conduct the more rigorous five-day composite sampling protocol, the results of which will be used for compliance purposes.

Introduction:

Coke is used as a fuel supply to the lime kiln at the Michigan Sugar Company, Croswell Factory (Croswell). These two options for a written coke sampling plan are designed to meet various environmental regulatory requirements. The fuel vendor provides the company with analytical data for the material being sold to the company. This data should be reviewed by the company to determine compliance with the appropriate Special Conditions of this Renewable Operating Permit (ROP). In addition, Testing/Sampling Special Condition V.1. requires verification of the vendor supplied analytical data by the Michigan Sugar Company collecting their own samples and having independent laboratory analysis performed.

The procedures outlined in this plan are intended to provide consistency and uniformity for collecting samples of coke that may be subjected to chemical and/or physical analysis and characterization. The options were developed consistent with the site-specific consideration and equipment arrangements at the Croswell Factory.

Safety Considerations:

Due to the configuration of the lime kilns it is not safe to do sampling from the coke conveyors. Attempts to do so may cause injury or death.

Coke Handling System Description:

Coke is shipped by the vendor to a central location by either ship or train, then transported by truck directly to the factory. It is unloaded and stored in a coke pile. During the course of the processing season (a.k.a. Campaign), the coke supply is replenished as needed.

Common elements of the two options

The purpose of the sampling is to determine the concentration of sulfur in the fuel in units of pounds per million BTU of each composite sample according to the following procedures:

1. Determine heat content of the fuel
2. Determine moisture contents of fuel
3. Measure sulfur concentration in fuel sample
4. Convert concentrations into units of pounds of sulfur per MMBTU of heat content

The sulfur concentration of the sample shall be the value used for determining results. In the event the fuel analysis differs when there are split samples, the sampling and analysis shall be repeated.

OPTION A (Single Event Composite Coke Pile Sampling)

SAMPLING PLAN:

Samples are to be taken from the coke pile at the factory. The following detailed sampling plan shall be used. Unless and until sampling is performed, vendor supplied analyses may be utilized to demonstrate permit compliance provided it is representative of the coke being delivered to Michigan Sugar Company.

1. For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.

2. At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

3. Combine the collected grab samples and prepare for transport to the analytical laboratory as described below.
   a. Collect bulk grab samples from each of the five selected sampling locations.
   b. Place the collected bulk grab samples into the same Ziplock bag and seal the bag after removing excess air. This bag should be placed into a second bag which should also be sealed after removing excess air. Clearly label the bag with the date and sample location description.
   c. Complete the laboratory request form and a sample manifest per any laboratory instructions. Request that the laboratory create a composite of the collected bulk grab samples and split the composite sample so there is a duplicate available.

4. Determining sulfur concentration:
   a. Determine heat content of the fuel; use ASTM D5865-04 or equivalent.
   b. Determine moisture contents of fuel; use ASTM D3173-03 or ASTM E871-82 (1998) or equivalent.
   c. Measure sulfur concentration in fuel sample; use ASTM D2492-90(1998) or ASTM D3177-89(2002) or equivalent.
   d. Convert concentrations into units of pounds of sulfur per MMBTU of heat content.

OPTION B (Five-Day Composite Coke Pile Sampling)

This option allows for representative samples to be collected using the method described in OPTION A, for a period of five days. The bulk grab sample collected each day will be sent to a laboratory for analysis. The analytical data from the five-day testing will be considered when determining compliance.

Compliance Determination

The results of the sampling procedures set forth in Options A and B below may be used by EGLE for compliance purposes if the Company does not request additional sampling as set forth below.

If the single event composite sampling (OPTION A) protocols and analysis suggests non-compliance the Company may elect to conduct the five-day composite sampling (OPTION B). The results from the five-day composite sampling shall be used to determine compliance.

The Department may request the split samples (duplicates) created during the five-day composite sampling.

Fuel Oil Sampling Plan/Options
Michigan Sugar Company - Croswell Factory
Croswell, Michigan

The individual emission units can operate (fire) either fuel oil or natural gas, but not both at the same time. The fuel oil sampling plan will apply when firing fuel oil for all or part of a campaign. The Michigan Department of Environment, Great Lakes, and Energy has asked for a fuel oil sampling protocol that can be used when a fuel sample is desired at the Croswell factory or when the EGLE requests that the company conduct fuel oil sampling.

The fuel oil sampling plan consists of collecting a bulk grab sample, as described below.

Introduction:

Fuel oil is used as an optional fuel for the CE Package Boiler and three pulp dryers at the Michigan Sugar Company, Croswell Factory (Croswell). The fuel oil sampling plan is designed to meet various environmental regulatory requirements. The fuel vendor provides the company with analytical data for the material being sold to the company. This data should be reviewed by the company to determine compliance with the appropriate Special Conditions of this Renewable Operating Permit (ROP). In addition, Testing/Sampling Special Condition V.1. requires verification of the vendor supplied analytical data by the Michigan Sugar Company collecting their own samples and having independent laboratory analysis performed.

The procedures outlined in this plan are intended to provide consistency and uniformity for collecting samples of fuel oil that may be subjected to chemical and/or physical analysis and characterization. The plan was developed consistent with the site-specific consideration and equipment arrangements at the Croswell Factory.

Oil Handling System Description:

Fuel oil is shipped to the site by truck and stored in a 400,000 gallon above ground fuel storage tank. The fuel oil tank is filled on an as needed basis. When firing using fuel oil, the fuel oil in the storage tank is continually heated and mixed. The mixing is achieved by pumping more fuel oil to the points of use than is needed and returning the excess fuel oil to the tank.

SAMPLING PLAN:

Access to fuel may be gained from three different locations; in the fuel oil tank pump house (point of distribution), at the CE package boiler (point of use) and in the pulp drier area (point of use). Unless and until sampling is performed, vendor supplied analyses may be utilized to demonstrate permit compliance provided it represents the fuel oil being delivered to Michigan Sugar Company

1. Collect a bulk grab sample from the identified sampling locations above.

2. Clearly label the sample with the date and sample location description.

3. Complete the laboratory request form and a sample manifest per any laboratory instructions. Request that the laboratory create a split sample so there is a duplicate available.

4. Determining sulfur concentration:
   a. Acceptable ASTM methodology, or its equivalent, shall be used.

Compliance Determination

The goal of the sampling is to determine the concentration of sulfur in the fuel to be burned in units of pounds per million BTU (See Appendix 7.).

The Department may request the split samples (duplicates) created during the bulk grab sampling.

Compliance Assurance Monitoring (CAM) Plan
Rotary Pulp Dryer, Michigan Sugar Croswell Factory
SRN B2876
Revised 3-19-2019
~~Edits~~ Updates 4-16-2024

I. Background and Discussion

The MDEQ-AQD has asserted CAM applies to particulate matter emissions on the Rotary Pulp Dryer because pre-control potential emissions exceed 100 tons per year and a control device is used to reduce (total) particulate emissions. CAM does not apply to this unit for the emission of VOC, CO, NOx, Pb or SO_2 because either the uncontrolled emissions are not major in and of themselves, and/or there are no add-on control equipment for these emissions parameters which bring the respective pre-controlled emissions below major source thresholds.

Historically, a CAM plan has been established and implemented for this emissions unit on the basis that the pre-controlled emission potential of particulates (as total PM) were above major source thresholds, in and of themselves. Control equipment includes a mechanical separation unit (a multiclone). Historically, the unit also included flue gas recirculation (FGR) from the multiclone hopper bin (a.k.a. dirty side of the process prior to the mechanical collector). Past Company operational practices resulted in the rate of flue gas recirculation being determined arbitrarily without an effective means to determine the benefit of the approach. Engineering testing was conducted on 10/31/2018. Subsequently compliance testing was conducted on November 13, 2018 with the FGR operated at the minimum safe recirculation rate in the range of 800 to 1,000 cfm. The Company and MDEQ-AQD staff concluded compliance was not dependent on the use of flue gas recirculation as demonstrated during the compliance test. The Company has decided to cease use of FGR. On that basis, this ~~update~~ revision to the CAM plan removes flue gas recirculation (FGR) as a control strategy and therefore also removes the associated monitoring provisions for FGR.

The Company has presented its position that~~on~~ multiclones are effective in the control and removal of total PM, but are ineffective in the removal of PM10 and PM2.5. MDEQ-AQD has ruled that control of total PM as a surrogate for PM10 and PM2.5 under Michigan Part 3 Rules is appropriate because the provisions of Part 3 (Specifically Rule 331) are federally enforceable. Additionally, this equipment is also subject to a negotiated settlement in the form of a Consent Order and site renewable operating permit (ROP) which includes particulate emission limitations and controls from this operation. The Company has yielded its opposition to the surrogate and multiclone effective control arguments and presents the following CAM plan provisions until or unless the agency rules otherwise or until the Company has successfully demonstrated Part 64 does not apply to this emissions unit.

Emission Unit

Facility: Michigan Sugar Company – Croswell Factory
Croswell, MI

Identification: EUDRYER

Description: The Rotary Pulp Dryer has an estimated capacity of approximately 30 tons per hour of pressed pulp. The Pulp Dryer furnace is equipped and capable of firing either natural gas, or fuel oil. Pressed Pulp is introduced into the fire end of the rotary of the dryer section. Pulp travels the length of the dryer section to the gathering end where the dried pulp is separated from the dryer airstream and the moisture laden air is exhausted. The Pulp Dryer exhaust is equipped with multiclones for (total) particulate matter control.

In November, 2017, the dryer gathering section experienced a separator failure and was repaired. At that time, relief dampers were added to limit/prevent air transport of dried pulp from the gathering section of the dryer drum to the multiclones. Verification testing conducted in November, 2017 indicates the repairs were effective.

During the inter-campaign period 2018, the Pulp Dryer operating controls were automated which provides automatic adjustment to specific operator dryer inputs. The I.D. fan speed is automatically controlled by the operating system to prevent inadequate or excessive air volume exhaust for a given set of operating conditions.

On October 31, 2018, and following the automation of the Dryer controls, engineering testing was conducted on the pulp dryer exhaust and it was determined the gravity dampers were not needed to prevent dried pulp drag-out. The engineering testing was also conducted while the FGR was operated at a minimal recirculation rate whereby just enough air was circulated in the FGR system (approximately 800 – 1,000 cfm) to maintain a positive flow in the FGR line and to prevent back flow from the furnace to the multiclone collection hopper. During the engineering testing, as well as the subsequent November 13, 2018 compliance testing, the particulate emissions were well below the emissions limit of 0.1 pounds of particulate per 1,000 pounds of stack gas. As a result, the Company concludes it can meet and maintain compliance with the particulate emissions limitation WITHOUT the need for FGR. ~~At the time of this plan preparation, t~~The facility ~~is preparing to~~ sealed the FGR components ~~and will make these changes~~ during the 2019 inter-campaign period. The changes ~~will~~ included the insertion of a duct flange and valve to seal the FGR airstream, and the valve ~~will~~has remained closed under normal operating conditions.

Commented [ER1]: Has this been done. Should we state that it was completed in 2019?

Applicable Regulation, Emission Limit, Monitoring Requirements

Renewable Operating Permit No: MI-ROP-B2876-2019a (Michigan Rule 210)

Emission Limits subject to CAM requirements: Particulate Matter 0.10 lbs. per 1,000 pounds of exhaust gas (Established pursuant to Michigan Rule 331)

Monitoring parameter: Measure and record pressure drop across the multiclones a minimum of three times per full operating shift with differential pressure device

Suitable Operating Range: 2 inch of water to 8 inches of water, unless the Company can demonstrate compliance with the particulate concentration limit (0.1 pounds of particulate per 1,000 pounds of stack gas) at differential pressure gage readings/value(s) below and/or above this range.

II. Monitoring Approach

The key element of the monitoring approach for total PM are presented in Table 1. The pressure drop across the multiclones (inlet to outlet) will be monitored in the Pulp Dryer control room and adjusted using the Pulp Dryer induced draft exhaust fan.

Table 1 Monitoring Approach – Total PM

Pressure Drop (multiclone) across the multiclones	Magnehelic® Differential Pressure Gauges (or a comparable device).
Pressure Gauge Range	An excursion is defined as any departure of readings during normal pulp dryer operation outside of 2" to 8" of H_2O pressure range. Note that "Startup" mode will result in lower than normal Dp in the range of approximately 0.5 to 2 inches of water pressure. Startup conditions may take several hours at low pressed pulp feed rates and lower than normal ID fan settings.

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III. Performance Criteria

Table 2. Performance Criteria

A. Data Representativeness	Measurements below two inches represent low process air flows and may also be associated with startup and shutdown conditions. If experienced during normal pulp load, it may be an indication of worn spinners in the multiclones. Measurements above eight inches represent high air flow rates and possible plugging or obstruction in the multiclone section
B. Verification of Operational Status	Positive measurements on pressure gauge indicates air movement (unit is operational). If low differential pressures are noted, increase the ID fan output. If high differential pressures are noted, reduce the ID fan output
C. QA/QC Practices and Criteria	Once per year the zero of each Magnehelic® Differential Pressure Gauge will be checked and adjusted as necessary (during shut-down of the pulp dryer). Should a gauge fail, it will be replaced.
D. Monitoring Frequency	Continuous except during downtime, maintenance, or unit cleaning
E. Data Collection Procedure	Readings of differential pressure measurements will be recorded by operator(s) hourly, but not less than three times per full operating shift on a log. Records will be maintained for five years. A missed reading will be considered an excursion.
F. Records of Actions Taken	Corrective actions taken to conform to the CAM plan will be recorded by the operator(s) and maintained for a period of 5 years.
G. Averaging Period	Measurements are instantaneous, and readings are discrete values and recorded by an operator. The readings are not averaged.

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IV. QA/QC

The multiclone has been proven to be adequate to achieve compliance with total particulate emissions parameter using EPA stack testing protocols. This plan will be updated, as necessary to reflect information gained during any future compliance testing, change in operating conditions affecting the plan, and/or regulatory revisions that affect the plan.

V. Justification

Rationale for Selection of Performance Indicator

Pressure drop across the multiclones was selected as a performance indicator because it is indicative of good operation of the units and the removal effectiveness is proportional to the pressure drop across the unit as measured during actual operation. The design efficiency of the multiclones has been demonstrated under variable operating conditions and within the operating range of this plan. Multiclones have no moving parts making their use relatively reliable so long as the operating range is maintained (see Section VI below). The continued reliance on multiclones will require ongoing monitoring (3x per full operating shift), proper operation of the ID fan, (either operation in automatic mode, or if in manual mode adjustment by the operators), and maintenance of the multiclones to prevent buildup and plugging (conduct inter-campaign inspection, ~~maintenance~~maintenance, and cleaning as necessary). To the extent possible, the process will operate in an automated mode whereby the ID fan speed and other operating variables are automatically adjusted to maintain the proper drying rate for the respective wet pulp condition and feed rates.

Rationale for Selection of Indicator Range

The unit has successfully demonstrated compliance with the particulate emissions rate at various differential pressures as measured during actual pulp dryer operation. The exception to normal operation is periods when the Induced draft fan is not operating. If the fan is not running, pulp dryer operation is compromised, and a bed fire may occur due to lack of heat removal from the dryer drum. In addition, it has been found that when the dryer drum is empty, the multiclone pressure drops are frequently outside of normal operating ranges such as is the case when the unit is started and a transition from pressed pulp to dried pulp processing is experienced, which is frequent in any given sugar beet processing campaign.

Performance Tests

A December 13, 2012 compliance test indicated average PM emissions of 0.070 pounds of particulate per 1,000 pounds of exhaust air.

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A compliance test was conducted September 19, 2017 with a result of 0.204 pounds of particulate per 1,000 pounds of stack gas (failed test).

A compliance test was conducted November 29, 2017 with a result of 0.068 pounds of particulate per 1,000 pounds of stack gas. This test result is less than the allowed emissions rate of 0.10 pounds per 1000 pounds, and 1/3 of the failed rate noted on September 19, 2017.

A compliance test was conducted November 13, 2018 with a result of 0.068 pounds of particulate per 1,000 pounds of stack gas. During this demonstration, the FGR was operated at a minimal recirculation rate and the dryer was operated in automated mode.

A compliance test was conducted December 14, 2021 with a result of 0.093 pounds of particulate per 1,000 pounds of stack gas.

Stack/performance testing will continue to be used for future ROP (40 CFR Part 70) compliance demonstrations, as well as validation of the effectiveness of the multiclones to reduce total PM.

VI. Operator Controlled Process Variables

The Pulp Dryer operators monitor the process variables associated with the drying of sugar beet pulp. The control of total particulates (subject of this CAM plan) is achieved with a mechanical separator operated and monitored by the differential pressure across the multiclones. The differential pressure across the multiclone is a function of the air discharge rate, controlled by the process ID fan which varies depending on the condition of the wet pulp and producing adequate drying of the pressed pulp as well as the wet load to be dried.

If the differential pressure levels across the multiclone falls below 2 inches of water pressure, the operator is directed by this plan to make the necessary process changes to increase the ID fan discharge rate. Levels above 8 inches of differential pressure can be adjusted by reducing the ID fan discharge rate, but may not be easily changed if operated in the automated mode. If steady rates are not achievable, or the desired range is not attainable/sustainable, the situation should be investigated quickly, and root cause corrected. Any and all excursions, deviations, and actions taken shall be noted in the shift log for the unit.

V. REVISION HISTORY

Date	Name	Change Description
August 2015	S. Smock	Original Draft
March 2019	J. Pfost Environmental Partners, Inc.	Update and amendments
4/18/2024	M. Martuch	Updated to include in ROP Renewal Package. No technical content changes.

Style Definition: Comment Text

MALFUNCTION ABATEMENT PLAN

Michigan Sugar Company – Croswell
SRN B2876
~~**Revised 4-3-2019**~~

I. General Background

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The Factory Manager is responsible for all aspects of the sugar production process and maintenance of all factory equipment, including all air pollution control equipment. During the campaign the majority of the maintenance supervision is delegated to the Maintenance Manager. Depending on the nature of the mechanical problem all supervisory staff on-site may become involved.

~~Since it is very important to the factory to avoid break-down of any kind, a~~All of the inter-campaign season ~~(approximately six-month period during the growing season)~~ is dedicated to repairing, maintaining and improving the physical condition of all of the factory equipment. The goal of the summer preventive maintenance activities is to avoid the need for repairs and equipment replacement (which is the subject of this plan) during the campaign production period. Specific inter-campaign activities that are considered routine maintenance checks and repair activities are identified for each of the emissions units. The identification of the routine maintenance checks and, as appropriate, repairs are suggestive in nature and do not constitute a "violation" of this MAP for failures to conduct. Rather, the suggestive identification is intended to be guidance for maintenance staff and proper communication.

The goal of this malfunction abatement plan is to aid in determining those elements that can impact the effective operation of air pollution control devices ~~-~~and minimize emissions to the extent possible. ~~possible by determining those elements that can impact the effective operation of air pollution control devices.~~

The following processing systems are included as part of this MAP plan.

II. ~~The process equipment of greatest concern at the Croswell factory is the pulp dryer.~~ Small baghouse units with airflows generally less than 30,000 cfm

III. Pulp Dryer

IV. FGSUGAR emission units

V. Riley Boiler

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~~The lime kiln has no air pollution controls of significance and therefore is not subject to these regulatory requirements. The remaining devices are small baghouse units with airflows generally less than 30,000 cfm each. A section of this MAP has been included for the Riley Boiler, which is a large natural gas fired steam boiler equipped with low NOx burners.~~

II. Baghouses – General Procedures

Baghouses are highly effective air-cleaning/air pollution control devices. They are used at a number of locations throughout the factory. Baghouses require a minimal amount of monitoring to ensure proper operation.

For monitoring purposes each unit is equipped with a differential pressure monitor (a pressure gauge or manometer). Except during periods of start-up and shutdown, the measured pressure drop across a baghouse should be one inch of water column (1" in. H_2O) or more. Baghouse differential pressures that are above the unit upper range, as detailed for each specific unit, are an indication of bag blinding (plugging). Excess emissions are typically not associated with plugged bags, since particles are not allowed to bypass the filter media; however, loss of collection effectiveness may also occur and as a result excessively high differential pressure situations should be addressed and corrected as soon as can be facilitated.

After bags are replaced and during initial start of the equipment, a gradual initial load on the fabric of the bags can result in lower than normal differential readings. Normally, this low-pressure situation does not result in significant emissions to the atmosphere and the condition will correct itself as a filter cake gradually forms on the filter media. In the event that the differential pressure readings do not return to the normal range, the unit should be shut down and the filter bags should be inspected. The filter cake buildup period during start-up can take several hours (for example 36 to 48 hours) after any prolonged (more than 48 hours) shut-down or stoppages. Pressure drops of <1.0 In. H_2O during these periods are considered typical/acceptable, so long as the pressure drop increases to normal ranges following the filter cake period build up period.

The pressure drop will be monitored periodically to determine the ongoing system performance. If the pressure drop is less than one inch of water, the baghouse will be shut down and inspected to determine if there has been a malfunction of the unit or damage to the filter bags and repaired as appropriate. If necessary, process equipment will be shut down until necessary repairs are made. In general, differential pressures below normal range may indicate either a lack of proper air flow or loss or damage to the filter medial, or both. Generally, differential pressure readings that exceed normal high range may indicate excessive air flow, or filter blockage (blinding) or both.

A general troubleshooting process description and flow chart are included in the Appendix for use as a guide for situations which go beyond the foreseeable events and procedures outlined in this written plan.

III. PULP DRYER MALFUNCTION ABATMENT PLAN (MAP)

ROP Emission Unit: EU-PULPDRYER
Air Cleaning Device: Multiclone, mechanical separation
Installed: 1975/1990
Design flow: Approximately 72,000 ACFM
Updated: 2018 with automation of the dryer controls

Emissions from the pulp dryer are reduced using a mechanical separator, also called a multiclone, equipped with a rotary air lock for removal of collected materials. Heavy particles drop from multiclone through a rotary airlock and into the dried pulp feed system. The collected particulate may then be directed to the pellet mill where the dried pulp is used to make pellets. The following standard operating procedures apply to the operation of the pulp dryer exhaust gas control system:

A. Supervision of operation and maintenance

During the beet processing campaign the EUPULPDRYER operate non-stop except for breakdowns causing production to temporarily cease. The beet processing campaign varies with the crop condition and storage and is approximately 6 months long. The campaign commences during the fall harvest and continues into late winter or early spring. During the remainder of the year, repairs and preventive maintenance are conducted to ensure reliable processing equipment operation during the active beet processing campaign.

Supervision

- During operation (campaign):
  - Primary: Packaging and warehouse supervisor.
  - Back-up: On-duty shift supervisor.
- During inter-campaign:
  - Primary: Packaging and warehouse supervisor.
  - Back-up: Maintenance manager.
    - For unusual projects the Maintenance manager may take lead.

~~IV.~~ Campaign/Operational Considerations

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1. An operator monitors temperature and furnace continuously. The process variables also include the relative pressed pulp feed rates with checks on the incoming and outgoing pulp moisture rates.
2. Instrumentation is used to continuously measure the pressure drop across the multi-cyclone. Acceptable operating parameters are between 2" and 8" W.C. Lower pressure drops (below 2") generally occur during startup, shutdown and low pressed pulp feed operating periods. The dryer is equipped with automatic response provisions for various components such as the induced draft (ID) fan. Therefore, before making manual adjustments during periods of low-pressure readings,

the operator must first determine if the readings are the result of low pulp loadings in the rotary dryer.

3. A written log of pulp dryer operation and maintenance is kept and maintained on file for a period of five (5) years.
4. If the dryer operation cannot be run properly for the feed rate, the amount of drying desired, and the normal and proper operation of the multiclone system, the pulp dryer will be shut down in 60 minutes or less.

V. Inter-campaign and Nonproduction period Considerations

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In addition to the process equipment checks, lubrication and repairs, and during those periods when the pulp dryer is not in production mode for extended periods, (a.k.a. during the inter-campaign) inspections to the air pollution control equipment should include an internal inspection of the multiclone inlet plenum for signs of accumulated dry pulp and debris. Accumulated materials may block the multiclone inlets and prevent proper operation.

Accumulated materials should be removed. Periodic checks of the multiclone spinners, fans and pressure measurement equipment should also be checked between campaigns to ensure the mechanical components are ready for the next campaign period. All pressure gauges will be checked for proper operating condition, free and clear/proper pressure lines and unit adjustments for proper zero readings. Gauges that are not in proper working order shall be repaired or replaced as deemed appropriate. Records of all inspections, findings, and resulting actions taken will be kept. No major components or replacement parts are maintained on site since the major components are readily available from off-site resources and suppliers.

~~FGSUGAR Malfunction Abatement Plan~~

~~Michigan Sugar – Croswell Factory~~
~~SRN: B2876~~

~~The flexible group (FG) and emissions units were established/created pursuant to PTI 21-15B and are referenced here for inclusion in the MAP and ROP.~~

~~EUSUGARDRYER~~
~~Air Cleaning Device: Rotoclone with water injection system and droplet separator:~~
~~Installed: September 1988~~
~~Design flow: 15,000 ACFM design (original)~~

~~EUSUGARCOOLER,~~
~~Air Cleaning Device: Baghouse:~~
~~Installed: August 2017~~
~~Filter cloth: approximately 2,000 ft2 filter,~~
~~Design flow: 5,000 ACFM design (original)~~

~~EUSUGTRANSPORT~~
~~Air Cleaning Device: Baghouse:~~
~~Installed: September 1991~~
~~Filter cloth: approximately 1,000 ft2 filter,~~
~~Design flow: 6,000 ACFM design (original)~~

III. FGSUGAR MALFUNCTION ABATMENT PLAN (MAP)

~~A. Introduction~~

This plan has been developed to satisfy Special Condition III.1. for the flexible group FGSUGAR. FGSUGAR includes several emissions units and while FGSUGAR functionally includes post extraction processing, the individual emissions units and their function vary.

Two of the emissions units utilize baghouses for the collection and control of particulates from sugar processing and handling. Baghouses are highly effective air-cleaning/air pollution control devices. They are used at a number of locations throughout the factory. They need a minimal amount of monitoring to ensure proper operation. The Rotoclone is an effective control especially for emission units that may have a high moisture exhaust.

The flexible group (FG) and emissions units were established/created pursuant to PTI 21-15B and are referenced here for inclusion in the MAP and ROP.

ROP Emission Unit:	EUSUGARDRYER

Air Cleaning Device:	Rotoclone with water injection system and droplet separator
Installed:	September 1988
Design flow:	15,000 ACFM design (original)

ROP Emission Unit:	EUSUGARCOOLER
Air Cleaning Device:	Baghouse
Installed:	August 2017
Filter cloth:	approximately 2,000 ft^2 filter
Design flow:	5,000 ACFM design (original)

ROP Emission Unit:	EUSUGTRANSPORT
Air Cleaning Device:	Baghouse
Installed:	September 1991
Filter cloth:	approximately 1,000 ft^2 filter,
Design flow:	6,000 ACFM design (original)

A. Supervision of operation and maintenance

~~*R 336.1911 Malfunction abatement plans.*~~
~~*Rule 911. (1) Upon request of the department, a person responsible for the operation of a source of an air contaminant shall prepare a malfunction abatement plan to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding any applicable emission limitation.*~~

~~*(2) A malfunction abatement plan required by Subrule (1) of this rule shall be in writing and shall, at a minimum, specify all of the following:*~~

~~*(a) A complete preventative maintenance program, including identification 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.*~~

During the beet processing campaign the process EUSUGARDRYER and EUSUGARCOOLER operate non-stop except for breakdowns causing production to temporarily cease. The beet processing campaign varies with the crop condition and storage and is approximately 6 months long. The campaign commences during the fall harvest and continues into late winter or early spring. During the remainder of the year, repairs and preventive maintenance are conducted to ensure reliable processing equipment operation during the active beet processing campaign. EUSUGTRANSPORT operates as needed, mostly during first shift (7:00 am to 3:00 pm), and is dependent on the demand for bulk packaging.

Supervision

~~Supervision for the active beet processing versus inter-campaign periods is slightly different.~~

- During operation (campaign):
  - ~~Primary:~~ Packaging and warehouse supervisor.
  - ~~Back-up:~~ On-duty shift supervisor.
- During inter-campaign:
  - ~~Primary:~~ Packaging and warehouse supervisor.
  - ~~Back-up:~~ Maintenance manager.
    - For unusual projects the Maintenance manager may take lead.

- Annual Preventive Maintenance (PM) Programs

Emission Unit(s): EUSUGARCOOLER and EUSUGTRANSPORT

All PM activities occur during inter-campaign timeframe.

~~All annual preventive maintenance activities for these two emissions units are conducted during inter-campaign.~~

- ~~Initial action~~
- ~~o~~ Inspection of all air cleaning components. ~~-~~This may include removal of some to all of the bags for individual inspection.

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- Inspection will be for any defects in the filter media as well as the cloth or filter media connection points.
- Operating range: 1" to 10" of water pressure
- Replacement of all defective air cleaning components as needed.
- Spare parts: filter media

Emission Unit(s): EUSUGARDRYER EUSUGARDRYER

All PM activities occur during inter-campaign timeframe.
All annual maintenance activities are conducted during inter-campaign.

- Initial action
- Inspection of the impeller and volute for wear.
- Replacement of all defective components as needed.
- Spare parts: spray nozzles and valves.

B. Monitoring to Ddetect Mmalfunction or Ffailure

Rule 911(2)(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.

Emission Unit(s): EUSUGARCOOLER and EUSUGTRANSPORT EUSUGARCOOLER and EUSUGTRANSPORT

- Each baghouse is equipped with a differential pressure monitor (a pressure gauge or manometer). Except during process start-up, the measured pressure drop across a baghouse should be greater than one inch of water column (1" WC). A slow start-up may occur if the material flow through the emission unit is lower than normal. Normally, this is not an issue despite the lack of an operating filter cake (which may cause low pressure drop reading.
- Pressure drop will be read and recorded on each baghouse, on each operating shift but no less frequently than once per operating day (for example during the beet processing campaign). If the pressure drop is less than one inch of water, the baghouse will be inspected to determine if there has been a malfunction of the primary filtration component, and, repaired as appropriate. If necessary, process equipment will be shut-down until and while repairs are completed.

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Emission Unit(s): EUSUGARDRYER

- The sugar dryer is served by a Rotoclone, which combines an induced draft (ID) fan with water/liquid sprays to provide wet scrubbing and exhaust flow. Loss of the Rotoclone fan will cause the process to shut down. Loss of the water flow will compromise emission control which could result in excess emissions.

- The Rotoclone water discharge will be monitored and recorded during each shift of an operation day for a “go or no-go” operating conditional determination, but no less frequently than once per operating day to ensure effective water flow. No discharge from the Rotoclone to the sugar end melter is an indication of a pump failure or a plugged water nozzle.

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C. ~~IV.~~ Corrective action or operational changes

Rule 911(2)(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.

- Emission Unit(s): EUSUGARCOOLER and EUSUGTRANSPORT ~~EUSUGARCOOLER and EUSUGTRANSPORT~~

- Bag house – low pressure reading
  - In the event of loss of pressure, either the ventilation fan has failed or the filter cloth has failed. In the event of a ventilation fan failure, initiate fan maintenance as soon as possible. In the event of a bag failure, initiate baghouse maintenance to repair or replace the filter sock.
  - In the event of an over pressure situation of 10 Inches of water~~,~~ initiate bag cleaning, rapping or reverse pulse to remove the filter cake from the bag surface. If the bag cleaning is not effective, bag replacement should be initiated.

Emission Unit(s): EUSUGARDRYER

- Rotoclone – water flow failure
  - ~~l~~In the event of a loss in air flow, all sugar drying (processing) and emissions will stop. Initiate fan maintenance as soon as possible in order to resume processing/drying sugar. Note loss of Rotoclone fan will halt emissions.
  - ~~l~~In the event of the loss of water, conduct water pump maintenance and/or nozzle cleaning as may be dictated by conditions.

~~V.~~ D. Reference Documents

Rule 911(3). A malfunction abatement plan required by Subrule (1) of Rule 911 shall be submitted to the department and shall be subject to review and approval by the department. If, in the opinion of the commission, the plan does not adequately carry out the objectives as set forth in Subrules (1) and (2) of this rule, then the department may disapprove the plan, state its reasons for disapproval, and order the preparation of an amended plan within the time period specified in the order. If, within the time period specified in the order, an amended plan is submitted which, in the opinion of the department, fails to meet the objective, then the department, on its own initiative, may amend the plan to cause it to meet the objective.

Rule 911(4). Within 180 days after the department approves a malfunction abatement plan, a person responsible for the preparation of a malfunction abatement plan shall implement the malfunction abatement plan required by Subrule (1) of Rule 911.

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a) Michigan Air Use Permit to Install 21-15B, May 16, 2017
b) Michigan Pollution Rule 911, Malfunction abatement plans, (R336.1911)

~~History~~

~~Original: December 2004 by S. Smeck, Michigan Sugar Company~~
~~Officially removed from ROP when emission units were removed from ROP under Rule 285(dd)~~
~~Modified October 2015 by S. Smeck and J. Pfost of EPI; changes made to address DEQ's comments regarding PTI 21-15A~~
~~Modified April, 2019 during ROP renewal and updates to reflect DEQ comments.~~

IV. EU-RILEYBLR MALFUNCTION ABATMENT PLAN (MAP) ~~Malfunction Abatement Plan~~

~~Michigan Sugar – Croswell Factory SRN: B2876~~
~~EU-RILEYBLR~~
~~175.5 MMBTU/hour Natural Gas Fired Riley Boiler~~
~~Built 1969 – Relocated to Croswell 2015~~
~~Air cleaning devices: none present~~
~~Process Air Pollution Control Devices: Low NO_x Burner~~

ROP Emission Unit: EURILEYBLR
175.5 MMBTU/hour Natural Gas Fired
Air Cleaning Device: none
Installed: Built 1969, Relocated to Croswell 2015
Design flow: Approximately 72,000 ACFM
Process Air Pollution Control Devices: Low NOx Burner

The emissions unit EU was established/created pursuant to PTI 21-15B and is referenced here for inclusion in the MAP and ROP. This plan is to satisfy the Special Condition III.1. of PTI 21-15B. Due to the lack of an air cleaning device the company believes the referenced Special Condition applies only to the low NOx burner technology which EPA has indicated is process equipment. The operation and maintenance documentation for the burner notes the burner is not adjustable by the operators. The Company concludes the burner is a pollutant emitting device and is not an air cleaning device and is advantaged to keep the burner in good operating conditions to minimize fuel costs as well as to minimize air pollution impacts.

Low NOx burners are highly specialized stable devices and adjusting or replacing components of the burner is not conducted by MSC employees. Rather, a manufacturer's technician, or equivalent will complete any needed adjustments or installations.

The primary indicator of an issue with the burner is detected by the NOx CEM. Should the emissions exceed 90% of the NSPS emission limit (0.18 lb/mmBTU) the operator will initiate an investigation to determine the cause.

A. ~~II~~ Supervision of Oo~~o~~peration and Mm~~m~~aintenance

R 336.1911 Malfunction abatement plans.

Rule 911. (1) Upon request of the department, a person responsible for the operation of a source of an air contaminant shall prepare a malfunction abatement plan to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding any applicable emission limitation.

Rule 911(2). A malfunction abatement plan required by Subrule (1) of this rule shall be in writing and shall, at a minimum, specify all of the following:

Rule 911(2)(a). A complete preventative maintenance program, including identification 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.

There are two ~~lengthy and~~ distinct periods for ~~the boiler house and~~ boiler operation at the factory; 1) during the campaign the boiler will operate non-stop except for breakdowns causing production to temporarily cease, and 2), during the non-processing/non-operation when repairs and preventive maintenance activities are conducted to ensure reliable operation during the processing campaign. ~~Supervision for these two periods is slightly different.~~

Supervision

- During operation (campaign):
  - Primary: On-duty shift supervisor
  - Back-up: Maintenance manager
- During inter-campaign:
  - Primary: On-duty shift supervisor
  - Back-up: Maintenance manager.
    - For unusual projects the Maintenance manager may take lead.

Annual Preventive Maintenance (PM) Programs

- ~~During operation (campaign): Primary – On-duty shift supervisor. Back-up Maintenance manager~~
- ~~During inter-campaign: Primary – boiler house area supervisor (temporary assignment). Back-up – Maintenance manager for unusual projects the Maintenance manager may take lead.~~

All annual preventive maintenance will be conducted inter-campaign.

~~Initial action~~

- Inspection of all air cleaning components – None present.
- Inspection will be conducted of components of the boiler including;
  - the burner (air emissions source),
  - boiler drums – have never had an issue with this other than scaling and other deposits. Examination for cracks will be conducted each year.
  - boiler tubes (components which may affect the air emissions source). Generally, boiler tube issues are leaks which reveal themselves either by
    - Changing the flame appearance as seen through the view port. This is generally an inner tube and would be noted during the campaign when the unit is operational.
    - A water leak from the boiler. There is a greater tendency of water leaks from outer tubes.
    - A change in the differential measurements between a measure of the boiler feed water volume and a measure of the steam volume. Generally, this indicator is reliable for detecting larger water leaks when it is apparent water use to steam generation is out of formula. The differential pressures may be determined during the campaign period when the unit is operational.
- Replacement of all defective air cleaning components – None present.
- Boiler tubes will be replaced or repaired as needed using parts from suppliers. The boiler drums will be cleaned as needed. A technician from the burner manufacturer (or equivalent) will be called in to address issues found or suspected with proper operation of the burner. This contract service will be responsible for bringing or acquiring the necessary parts to conduct appropriate service and needed adjustments/parts replacements.
- Since there is no air cleaning equipment, no spare parts are needed.

As specified in 40 CFR part 63.7540(a)(12), and since the unit utilizes oxygen ($O_{2)}$ trim, a boiler tune-up will be conducted at least every 61 months. Proper boiler operation will be monitored using a combination of the exhaust gas O_2 and NO_x along with the steam production.

~~C.~~

~~III Monitoring to detect malfunction or failure~~

B. Monitoring to Detect Malfunction or Failure

~~Rule 911(2)(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.~~

A description of the device (the natural gas fired boiler) is provided in the boiler introduction description above. There are no air cleaning devices and as a result there are no proposed monitoring or surveillance procedures for this unit.

The NO_x CEM will be used to monitor the emissions of O_2 and NO_x from the gas burner. The allowed NO_x emission rate is 0.20 lbs./MMBTU on a 30-day rolling average (see 40 CFR §60.44b). An action level has been established at 90% of the allowed emission rate (or 0.18 lbs. NOx/MMBTU).

The boiler is equipped with O_2 trim for the dynamic adjustment of air for a given fuel rate and steam demand. The O_2 target is normally in the range of 2% to 4%, as recommended by the manufacturer, except during periods of start-up, shut-down and very low or minimal steam demand loads (defined as 10% of full load or less).

The boiler O_2 trim is continuously monitored and controlled by the boiler control system. The control computer automatically shuts down the boiler to avoid unstable operation and to prevent damage to the boiler and boiler components. Typical triggers for automatic shut-downs include: O_2 outside of recommended range except during start-up and shut-down and operation below 10% of maximum load. Annual RATAs and quarterly Cylinder Gas Audits (CGA), for those annual quarters in which the unit has operational time, will be conducted to ensure the proper operation of this monitoring equipment.

C. Corrective action or operational changes

~~Rule 911(2)(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.~~

~~The source of the emissions is from the burning of Natural Gas (in the burner) to produce steam in the boiler tube section of the boiler. There is no air-cleaning device to be monitored. The NO_x CEM will be used to monitor the emissions of O_2 and NO_x from the gas burner. The allowed NO_x emission rate is 0.20 lbs./MMBTU on a 30-day rolling average (see 40 CFR §60.44b). An action level has been established at 90% of the allowed emission rate (or 0.18 lbs. NOx/MMBTU).~~

The boiler is equipped with O_2 trim for the dynamic adjustment of air for a given fuel rate and steam demand. The O_2 target is normally in the range of 2% to 4%, as recommended by the manufacturer, except during periods of start-up, shut-down and very low or minimal steam demand loads (defined as 10% of full load or less).

The boiler O_2 trim is continuously monitored and controlled by the boiler control computer. The control computer automatically shuts down the boiler to avoid unstable operation and to prevent damage to the boiler and boiler components. Typical triggers for automatic shut-downs include: O_2 outside of recommended range except during start-up and shut-down and operation below 10% of maximum load. Annual RATAs and quarterly Cylinder Gas Audits (CGA), for those annual quarters in which the unit has

operational time, will be conducted to ensure the proper operation of this monitoring equipment. ~~In the event a quarter does not include boiler operation, CGAs are not conducted.~~

~~Corrective action or operational changes for the boiler and the boiler CEMs~~

Depending on when the previous CEM autoCAL was completed, a manual calibration may be initiated to check the reading. While drift between autoCALs is unusual it should be evaluated and ruled out as a first step in the diagnosis.

Early in the inter-campaign period, the burner will be visually inspected and compared to the specifications set by the most recent tune-up technician or manufacturer's representative. If issues are detected, a manufacturer's representative will be utilized to fully evaluate the identified issue to initiate corrective action(s). Boiler components and parts which show excessive, unusual wear, or damage will be ordered and replaced by qualified technicians as appropriate. Manufacturer's technicians or an equivalent contractor service will conduct parts replacements since significant adjustments may be required with the parts replacement.

The NOx CEMS and O_2 monitors are used to detect and determine unsatisfactory and unusual boiler operation.

- Historically, boiler tube leaks have been the most common causes of higher emissions. Tube leaks can be identified by visual inspection of the combustion chamber during operation, water leaks out of the boiler and/or excessive water make-up volumes relative to steam output. When leaks are detected, the boiler will be shut-down and the leaking tube or source repaired.
- For all other causes of unsatisfactory NOx emissions, the burner representatives will be consulted to determine the correct fuel and air burner ratios.
- During periods when the NOx CEMs may not be operational, the boiler operators will maintain the proper combustion operational ranges utilizing readings from the O2 CEMs on the O2 trim system. Excess O2 readings may indicate the combustion ratio of fuel to air is too lean and NOx emissions may be higher than normal and/or allowed. The NOx CEMS SOP manual will also be consulted.

~~B.~~

E. Reference Documents

~~IV Reference Documents~~

Rule 911(3) A malfunction abatement plan required by Subrule (1) of this rule shall be submitted to the department and shall be subject to review and approval by the department. If, in the opinion of the commission, the plan does not adequately carry out the objectives as set forth in Subrules (1) and (2) of this rule, then the department may disapprove the plan, state its reasons for disapproval, and order the preparation of an amended plan within the time period specified in the order. If, within the time period specified in the order, an amended plan is submitted which, in the opinion of the department, fails to meet the objective, then the department, on its own initiative, may amend the plan to cause it to meet the objective.

Rule 911(4). Within 180 days after the department approves a malfunction abatement plan, a person responsible for the preparation of a malfunction abatement plan shall implement the malfunction abatement plan required by Subrule (1) of this rule.

a) Instructions for Operation and maintenance, for COEN Variflame Burner, John Zink Hamworthy Combustion, 11920 East Apache, Tulsa, OK 74116
b) Michigan Air Use Permit to Install 21-15B, May 16, 2017
c) Michigan Pollution Rule 911, Malfunction abatement plans, (R336.1911)

V. REVISION HISTORY ~~HISTORY~~

History
Original: December 2004 by S. Smock, Michigan Sugar Company
Officially removed from ROP when emission units were removed from ROP under Rule 285(dd)
Modified October 2015 by S. Smock and J. Pfost of EPI; changes made to address DEQ's comments regarding PTI 21-15A
Modified April, 2019 during ROP renewal and updates to reflect DEQ comments.

Date	Name	Change Description
August 2015	S. Smock	Original Draft
April 2019	J. Pfost Environmental Partners, Inc.	Update and amendments
4/16/2024	M. Martuch	Updated to include on ROP Renewal Package. No technical content change.

~~Original Draft August 2015 by S. Smock, Michigan Sugar Company~~
~~Update and amendments April 2019 by J. Pfost Environmental Partners, Inc.~~

Appendix

GENERIC TROUBLESHOOTING PROCESS TO FIND ROOT CAUSE(S)

1. Problem or Deviation Identified by Operator of Equipment according to the operating conditions outlined for the specific emissions unit (see above)

↓

2. Operator of Equipment Troubleshoots to Find Root Cause(s)

↓

3. Appropriate Hourly Leader and the Operator of the Equipment work together in Troubleshooting to Find Root Cause(s)

↓

4. Shift Superintendent, appropriate Hourly Leader and the Operator of the Equipment work together in Troubleshooting to Find Root Cause(s)

↓

5. As needed the Assistant Maintenance Manager joins the Shift Superintendent, appropriate Hourly Leader and the Operator of the Equipment in Troubleshoots to Find Root Cause(s)

↓

6. As needed the Maintenance Manager joins the Assistant Maintenance Manager, Shift Superintendent, appropriate Hourly Leader and the Operator of the Equipment in Troubleshooting to Find Root Cause(s)

↑

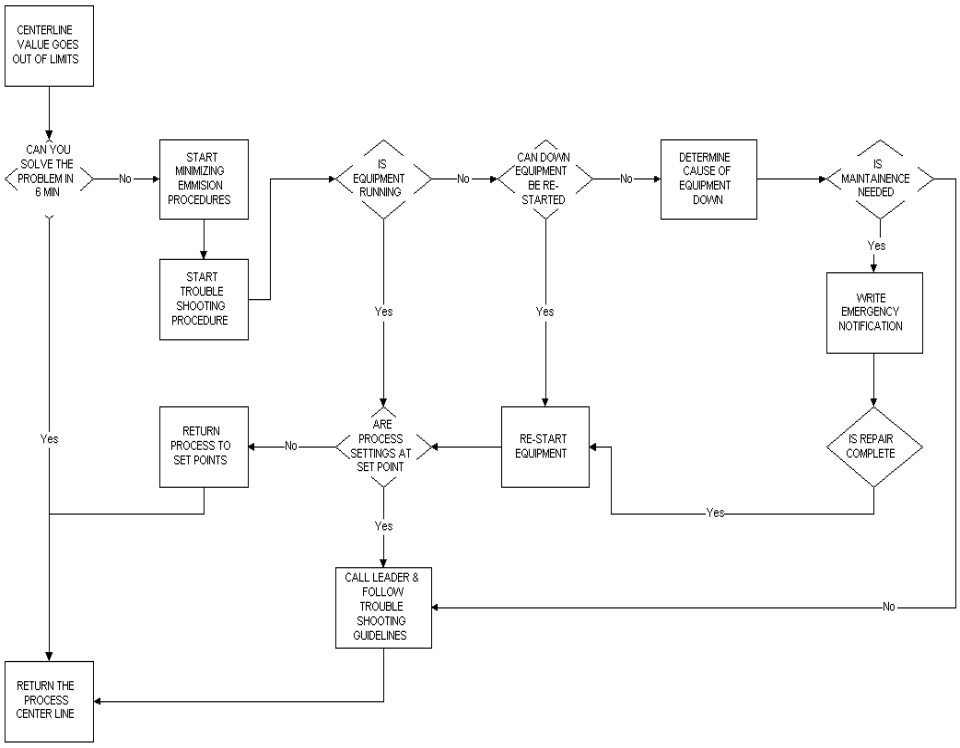
7. None of the Above Steps should ever be skipped unless it is an Emergency

NOTE: WHEN FACED WITH A REQUEST FOR ANY ASSISTANCE BECAUSE OF A DEVIATION, THE SHIFT SUPERINTENDENT WILL ENSURE THAT THE STEPS ABOVE WERE PROPERLY COMPLETED PRIOR TO FULLFILLING THE REQUEST (SAVE CATISTROPHIC FAILURES, AND EMERGENCIES)

SHUTDOWN

If the root cause cannot be determined or fixed promptly, the Factory Manager is responsible for making the decision concerning shutting down the equipment in question

MALFUNCTION ABATEMENT FLOW CHART



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