

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

May 16, 2017

**PERMIT TO INSTALL  
21-15B**

**ISSUED TO  
Michigan Sugar Company**

**LOCATED AT  
159 South Howard Street  
Crosswell, Michigan**

**IN THE COUNTY OF  
Sanilac**

**STATE REGISTRATION NUMBER  
B2876**

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

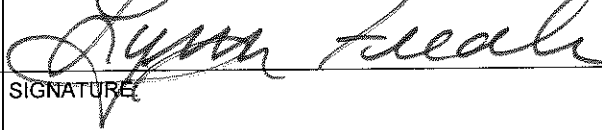
DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

**September 23, 2016**

DATE PERMIT TO INSTALL APPROVED:

**May 16, 2017**

SIGNATURE:



DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

## PERMIT TO INSTALL

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**Common Abbreviations / Acronyms**

<b>Common Acronyms</b>		<b>Pollutant / Measurement Abbreviations</b>	
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 <sub>2e</sub>	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H <sub>2</sub> S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO <sub>x</sub>	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM <sub>10</sub>	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM <sub>2.5</sub>	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO <sub>2</sub>	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
  
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

**SPECIAL CONDITIONS**

**EMISSION UNIT SUMMARY TABLE**

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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
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).	7/21/2015	FG63-5D-EXNGBLR
EUSUGARDRYER	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.	04/01/1988	FGSUGAR
EUSUGARCOOLER	A cooler utilizing ambient air to temper sugar before silo storage. This is equipped with a dust collection system.	06/01/1991	FGSUGAR
EUSUGTRANSPORT	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.	06/01/1991	FGSUGAR
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

**The following conditions apply to:**  
**EU-RILEYBLR**

**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. Manufactured in 1969. Relocated from the Michigan Sugar Company – Carrolton Plant on (July 21, 2015).

**Flexible Group ID:** FG63-5D-EXNGBLR

**POLLUTION CONTROL EQUIPMENT:** Low NOx burners.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	0.11 lb/MMBTU	Test Protocol*	EU-RILEYBLR	SC V.1, SC VI.7	R 336.2802(4), 40 CFR 52.21(c) & (d)
2. NO <sub>x</sub>	0.20 lb/MMBTU	30-day rolling average basis	EU-RILEYBLR	SC VI.2, SC VI.7	40 CFR 60.44b
3. NO <sub>x</sub>	86.24 tpy	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)
4. PM	1.46 tpy**	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 <sub>10</sub>	5.84 tpy**	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 <sub>2e</sub>	92,428 tpy***	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)

\*Test Protocol shall specify averaging time.

\*\*These emission limits are based on the following emission factors:

PM = 1.9 lb/MMscf

PM<sub>10</sub> = 7.6 lb/MMscf

\*\*\*This calculation is based upon CO<sub>2</sub>, methane, and N<sub>2</sub>O emission factors from AP-42.

**II. MATERIAL LIMITS**

- The permittee shall only burn natural gas in EU-RILEYBLR. (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.
  - c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205(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. **(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 NO<sub>x</sub> burners are installed, maintained, and operated in a satisfactory manner. **(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. **(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 NO<sub>x</sub> emissions, and oxygen (O<sub>2</sub>), or carbon dioxide (CO<sub>2</sub>), content of the exhaust gas from EU-RILEYBLR on a continuous basis. **(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 336.1201(3))**

1. Upon request from the AQD District Supervisor, the permittee may be required to verify NO<sub>x</sub> 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. **(R 336.2001, R 336.2003, R 336.2004, R 336.2802(4), 40 CFR 52.21(c) & (d))**



## **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(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 NO<sub>x</sub> emissions and the O<sub>2</sub>, or CO<sub>2</sub>, 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 A and shall use the CEMS data for determining compliance with SC I.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. **(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. **(40 CFR 60.49b(d))**
5. The permittee shall calculate and keep, in a satisfactory manner, monthly and 12-month rolling total NO<sub>x</sub>, PM, PM<sub>10</sub>, and CO<sub>2e</sub> 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. **(R 336.1205(1)(a) & (b), R 336.2802(4))**
6. 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. **(40 CFR Part 60 Subpart Db, 40 CFR 60.49b(r)(1))**
7. 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). **(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)**

## **VII. REPORTING**

1. 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. **(40 CFR 60.7, 40 CFR 60.49b(h) & (i))**

**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV-RILEYBLR	113	185	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. **(40 CFR Part 60 Subparts A & Db)**
2. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and DDDDD, as they apply to EU-RILEYBLR. **(40 CFR Part 63 Subparts A & DDDDD)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FLEXIBLE GROUP SUMMARY TABLE**

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

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FGSUGAR	Equipment utilized in the forming of sugar crystals to the storage of final product.	EUSUGARDRYER, EUSUGARCOOLER, EUSUGTRANSPORT
FG63-5D-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.	EU-RILEYBLR

**The following conditions apply to:**  
**FGSUGAR**

**DESCRIPTION:** Equipment utilized in the forming of sugar crystals to the storage of final product.

**Emission Units:** EUSUGARDRYER, EUSUGARCOOLER, EUSUGTRANSPORT

**POLLUTION CONTROL EQUIPMENT:** EUSUGARDRYER: rotoclone dust collector with water injection system and a droplet separator. EUSUGARCOOLER: dust collection system. EUSUGTRANSPORT: dust collection system consisting of baghouses.

**I. EMISSION LIMITS**

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

\*Test Protocol shall specify averaging time.

<sup>a</sup>Calculated to 50% excess air.

## **II. MATERIAL LIMITS**

NA

## **III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate any unit of FGSUGAR 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. **(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 EUSUGARDRYER unless the rotoclone dust collector with water injection system and a droplet separator are installed, maintained, and operated in a satisfactory manner. **(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 EUSUGARCOOLER unless the dust collection system is installed, maintained, and operated in a satisfactory manner. **(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 EUSUGTRANSPORT unless the dust collection system is installed, maintained, and operated in a satisfactory manner. **(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 336.1201(3))**

1. Upon request from the AQD District Supervisor, the permittee may be required to verify PM emission rates from one or each unit of FGSUGAR (EUSUGARDRYER, EUSUGARCOOLER, and EUSUGTRANSPORT), 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. **(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 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(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 EUSUGARDRYER, EUSUGARCOOLER, and EUSUGTRANSPORT. 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. **(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 FGSUGAR. 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. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

**VII. REPORTING**

NA

**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 <sup>b</sup>	18 X 20	38	40 CFR 52.21(c) & (d)
2.SVSUGARCOOLER <sup>c</sup>	20	22	40 CFR 52.21(c) & (d)
3.SVSUGTRANSPORT <sup>c</sup>	24	37	40 CFR 52.21(c) & (d)
<sup>b</sup> Horizontal discharge.			
<sup>c</sup> Equipped with a chimney rain cap.			

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**The following conditions apply to:**  
**FG63-5D-EXNGBLR**

**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 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.

**Emission Units:** EU-RILEYBLR

**POLLUTION CONTROL EQUIPMENT:** NA

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

1. FG63-5D-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. **(40 CFR 63.7499(I))**

**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. **(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. **(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. **(40 CFR 63.7500(a)(3))**
2. As provided in 40 CFR 63.6(g), EPA may approve use of an alternative to the work practice standards. **(40 CFR 63.7500(b))**
3. 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. **(40 CFR 63.7500(e))**
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). **(40 CFR 63.7510(e))**

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))**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. FG63-5D-EXNGBLR shall apply only to boilers with a heat input capacity of greater than or equal to 10 MMBtu per hour. **(40 CFR Part 63, Subpart DDDDD)**

#### **V. TESTING/SAMPLING**

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

NA

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee must keep records according to paragraph (a)(1) of 40 CFR 63.7555, as listed below. **(40 CFR 63.7555(a))**
  - a. A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
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. **(40 CFR 63.7555(h))**
3. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**
4. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
5. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 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. **(40 CFR 63.7560(c))**



## **VII. REPORTING**

1. 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.4 through SC VII.8, and in Subpart A of 40 CFR 63. **(40 CFR 63.7495(d))**
2. 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. **(40 CFR 63.7530(e))**
3. 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.6. **(40 CFR 63.7530(f))**
4. 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. **(40 CFR 63.7545(a))**
5. 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. **(40 CFR 63.7545(b))**
6. 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. **(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 EPA 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. **(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: **(40 CFR 63.7545(e)(8))**
    - 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)." **(40 CFR 63.7545(e)(8)(i))**
    - ii. "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)." **(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." **(40 CFR 63.7545(e)(8)(iii))**

7. 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. **(40 CFR 63.7545(f))**
  - a. Company name and address. **(40 CFR 63.7545(f)(1))**
  - b. Identification of the affected unit. **(40 CFR 63.7545(f)(2))**
  - c. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began. **(40 CFR 63.7545(f)(3))**
  - d. Type of alternative fuel that the permittee intend to use. **(40 CFR 63.7545(f)(4))**
  - e. Dates when the alternative fuel use is expected to begin and end. **(40 CFR 63.7545(f)(5))**
8. 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: **(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. **(40 CFR 63.7545(h)(1))**
  - b. The currently applicable subcategory under 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7545(h)(2))**
  - c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h)(3))**
9. The permittee must submit each report in Table 9 of 40 CFR Part 63, Subpart DDDDD that applies. **(40 CFR 63.7550(a))**
10. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.12, 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. **(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. **(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. **(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. **(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. **(40 CFR 63.7550(b)(4) & (5))**
11. A compliance report must contain the following information depending on how the permittee chooses to comply with the applicable limits set in this rule. **(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. **(40 CFR 63.7550(c)(1))**

- b. 40 CFR 63.7550(c)(5) is as follows:
  - i. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
  - ii. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
  - iii. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
  - iv. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.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. **(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. **(40 CFR 63.7550(c)(5)(xvii))**
12. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**
  - a. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 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. **(40 CFR 63.7550(h)(3))**

### **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. **(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. **(40 CFR 63.7490(a)(1))**
2. A boiler is existing if it is not new or reconstructed, as defined below. **(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. **(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. **(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. **(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). **(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. **(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. **(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. **(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. **(40 CFR 63.7540(a)(10)(i))**
    - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
    - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
    - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
    - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
    - vi. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of 40 CFR 63.7540, as listed below. **(40 CFR 63.7540(a)(10)(vi))**
      - A. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. **(40 CFR 63.7540(a)(10)(vi)(A))**
      - B. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
      - C. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**
  - 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. **(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 30 calendar days of startup. **(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. **(40 CFR 63.7565)**

**APPENDIX A  
NOx Monitoring  
Continuous Emission Monitoring System (CEMS)  
Requirements**

**For an existing CEMS: If the permittee has satisfied the installation and testing requirements, Items 1 – 4 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.

<b>Pollutant</b>	<b>Applicable PS</b>
NOx	2
O <sub>2</sub> & CO <sub>2</sub>	3

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2 and 3 of Appendix B to 40 CFR Part 60.
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.