MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

July 14, 2015

PERMIT TO INSTALL 91-15

ISSUED TOGeneral Motors, LLC Detroit Hamtramck Assembly

LOCATED AT 2500 East GM Boulevard Detroit, Michigan

IN THE COUNTY OF Wayne

PENINSUL

STATE REGISTRATION NUMBER M4199

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: July 13, 2015		
DATE PERMIT TO INSTALL APPROVED: July 14, 2015	SIGNATURE:	
DATE PERMIT VOIDED:	SIGNATURE:	
DATE PERMIT REVOKED:	SIGNATURE:	

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

	Common Acronyms	Pollutant / Measurement Abbreviations		
AQD	Air Quality Division	BTU	British Thermal Unit	
BACT	Best Available Control Technology	°C	Degrees Celsius	
CAA	Clean Air Act	СО	Carbon Monoxide	
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot	
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter	
CO ₂ e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit	
COM	Continuous Opacity Monitoring	gr	Grains	
EPA	Environmental Protection Agency	Hg	Mercury	
EU	Emission Unit	hr	Hour	
FG	Flexible Group	H ₂ S	Hydrogen Sulfide	
GACS	Gallon of Applied Coating Solids	hp	Horsepower	
GC	General Condition	lb .	Pound	
GHGs	Greenhouse Gases	kW	Kilowatt	
HAP	Hazardous Air Pollutant	m	Meter	
HVLP	High Volume Low Pressure *	mg	Milligram	
ID	Identification	mm	Millimeter	
LAER	Lowest Achievable Emission Rate	MM	Million	
MACT	Maximum Achievable Control Technology	MW	Megawatts	
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram	
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen	
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter	
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns	
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns	
NSPS	New Source Performance Standards	pph	Pounds per hour	
NSR	New Source Review	ppm	Parts per million	
PS	Performance Specification	ppmv	Parts per million by volume	
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight	
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute	
PTI	Permit to Install	psig	Pounds per square inch gauge	
RACT	Reasonably Available Control Technology	scf	Standard cubic feet	
ROP	Renewable Operating Permit	sec	Seconds	
SC	Special Condition	SO ₂	Sulfur Dioxide	
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons	
SRN	State Registration Number	tpy	Tons per year	
TAC	Toxic Air Contaminant	μg	Microgram	
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound	
VE	Visible Emissions	yr	Year	

^{*} For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (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.
- 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
EUBOILER1	Natural gas-fired boiler with a maximum heat input capacity of 84 MMBtu/hr.	5/19/1981	FGPOWERHOUSE, FG63-5D-EXNGBLR
	Coal-firing capability removed upon NOTIFICATION DATE or on December 31, 2015, whichever comes first.		
EUBOILER2	Boiler capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse.	5/19/1981	FGPOWERHOUSE
EUBOILER3	Boiler capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse.	5/19/1981	FGPOWERHOUSE
EUBOILER4	Boiler capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse.	5/19/1981	FGPOWERHOUSE
EUASHCONVEYOR	Pneumatic ash conveying system controlled by a vent filter.	5/19/1981	FGASHSYSTEM
EUASHSILO	Ash silo controlled by the ash silo vent filter.	5/19/1981	FGASHSYSTEM
EUHOPPER	A Coal unloading system for the powerhouse controlled by a spray wetting system.	5/19/1981	NA

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: EUBOILER1

DESCRIPTION: Natural gas-fired boiler with a maximum heat input capacity of 84 MMBtu/hr.

Coal-firing capability removed upon NOTIFICATION DATE or on December 31, 2015, whichever comes first.

Flexible Group ID: FG63-5D-EXNGBLR

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO _x	0.2 lb/MMBtu	Test Protocol*	EUBOILER1	SC V.1,	R 336.1205(1)(a) & (b),
				SC VI.4	40 CFR 52.21(c) & (d)
2. NO _x	73.58 tpy	12-month rolling time period as determined at the end of each calendar month	EUBOILER1	SC VI.3, SC VI.4	R 336.1205(1)(a) & (b)
*Test Protocol sh	 nall specify averagir				

II. MATERIAL LIMITS

1. The permittee shall only burn natural gas in EUBOILER1. (R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1401, R 336.1702(a), 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The maximum design heat input capacity for EUBOILER1 shall not exceed 84 MMBtu per hour on a fuel heat input basis. (R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d))
- 2. The permittee shall install, calibrate, maintain, and operate, in a satisfactory manner, a device to monitor and record the monthly natural gas usage rate, when in operation, for EUBOILER1 on a continuous basis. (R 336.1205(1)(a) & (b))

V. TESTING/SAMPLING

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

1. Within 180 days after the emission unit EUBOILER1 becomes effective, the permittee shall verify NO_x emission rates, as specified in SC I.1, from EUBOILER1 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 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 336.2001, R 336.2003, R 336.2004, 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 last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(1)(a) & (b))
- 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 EUBOILER1. 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))
- 3. The permittee shall calculate and keep, in a satisfactory manner, monthly and 12-month rolling total NO_x mass emission records for EUBOILER1, as required by SC I.2. These calculations are based upon applicable emission factors, maximum design parameters, and hours of operation, or stack test data 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))
- 4. 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. Amount of natural gas combusted in EUBOILER1 on a monthly basis.
 - e. 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 336.1401, R 336.1702(a), R 336.1912, 40 CFR 52.21(c) & (d))

VII. <u>REPORTING</u>

 The permittee shall submit a notification stating the date that EUBOILER1 permanently ceased burning coal within 7 days of permanently ceasing burning coal or within 7 days of December 31, 2015, whichever comes first. (R 336.1201(3))

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV043-EUBOILER1	120	250	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

- 1. 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 EUBOILER1. (40 CFR Part 63 Subparts A & DDDDD)
- 2. This emission unit becomes effective upon the submittal of a notification that states that EUBOILER1 has permanently ceased burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))

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

The following conditions apply to: EUHOPPER

DESCRIPTION: A Coal unloading system for the powerhouse controlled by a spray wetting system.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Spray wetting system.

I. EMISSION LIMITS

1. The permittee shall meet all Emissions Limit(s) as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

II. MATERIAL LIMITS

1. The permittee shall meet all Material Limit(s) as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall meet all Process/Operational Restriction(s) as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall meet all Design/Equipment Parameter(s) as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

V. TESTING/SAMPLING

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

1. The permittee shall meet all Testing/Sampling requirements as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall meet all Monitoring/Recordkeeping requirements as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

VII. REPORTING

- 1. The permittee shall meet all Reporting requirements as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The permittee shall submit a notification stating the date that EUHOPPER permanently ceased operation within 7 days of permanently ceasing operation or within 7 days of December 31, 2015, whichever comes first. (R 336.1201(3))

VIII. STACK/VENT RESTRICTIONS

1. The permittee shall meet all Stack/Vent Restriction(s) as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

IX. OTHER REQUIREMENTS

- 1. The permittee shall meet all Other Requirement(s) as required for EUHOPPER in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The permittee shall permanently cease operation of EUHOPPER no later than December 31, 2015. The conditions in EUHOPPER shall no longer be applicable upon the submittal of a notification of permanently ceasing operation or upon December 31, 2015, whichever comes first. (R 336.1201(3))

Footnotes:

¹This 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.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGPOWERHOUSE	Four boilers: EUBOILER1, EUBOILER2, EUBOILER3, EUBOILER4. EUBOILER1 capable of coal and natural gas fire, maximum heat input capacity of 84 MMBTU per hour; exhaust gases controlled by baghouse. EUBOILER2 capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse. EUBOILER3 capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse. EUBOILER4 capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse. Coal capabilities shall cease no later than December 31, 2015, at which time FGPOWERHOUSE shall no longer be applicable.	EUBOILER1, EUBOILER2, EUBOILER3, EUBOILER4
FGASHSYSTEM	System for the conveyance and storage of ash, from collection at the boiler bottoms of FGPOWERHOUSE through conveyance to the disposal site. Fabric filter controls exist on EUASHSILO and on EUASHCONVEYOR.	EUASHCONVEYOR, EUASHSILO
FGTEMPBOILERS	Two portable boilers capable of natural gas fire, each with a maximum heat input capacity of 92 MMBTU per hour; equipped with low NOx burners.	EUTEMPBOILER1, EUTEMPBOILER2
FG63-5D-EXNGBLR	Requirements for existing natural gas-fired boilers at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDD. 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.	EUBOILER1

The following conditions apply to: FGPOWERHOUSE

<u>DESCRIPTION:</u> Four boilers: EUBOILER1, EUBOILER2, EUBOILER3, EUBOILER4. EUBOILER1 capable of coal and natural gas fire, maximum heat input capacity of 84 MMBTU per hour; exhaust gases controlled by baghouse. EUBOILER2 capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse. EUBOILER3 capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse. EUBOILER4 capable of coal fire, maximum heat input capacity of 248 MMBTU per hour; exhaust gases controlled by baghouse.

Coal capabilities shall cease no later than December 31, 2015, at which time FGPOWERHOUSE shall no longer be applicable.

Emission Units: EUBOILER1, EUBOILER2, EUBOILER3, EUBOILER4

POLLUTION CONTROL EQUIPMENT: Baghouse on the exhaust from each boiler.

I. EMISSION LIMITS

- 1. The permittee shall meet all Emissions Limit(s) as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER1 upon the submittal of a notification of permanently ceasing burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))

II. MATERIAL LIMITS

- 1. The permittee shall meet all Material Limit(s) as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The permittee shall permanently cease burning coal in EUBOILER1 no later than December 31, 2015. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER1 upon the submittal of a notification of permanently ceasing burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))

III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall meet all Process/Operational Restriction(s) as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER1 upon the submittal of a notification of permanently ceasing burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))

IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The permittee shall meet all Design/Equipment Parameter(s) as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER1 upon the submittal of a notification of permanently ceasing burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))

V. TESTING/SAMPLING

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

- 1. The permittee shall meet all Testing/Sampling requirements as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER1 upon the submittal of a notification of permanently ceasing burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall meet all Monitoring/Recordkeeping requirements as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER1 upon the submittal of a notification of permanently ceasing burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))

VII. REPORTING

- 1. The permittee shall meet all Reporting requirements as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The permittee shall submit a notification stating the date that EUBOILER1 permanently ceased burning coal within 7 days of permanently ceasing burning coal or within 7 days of December 31, 2015, whichever comes first. (R 336.1201(3))
 - a. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER1 upon the submittal of a notification of permanently ceasing burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))
- 3. The permittee shall submit a notification each boiler, EUBOILER2, EUBOILER3, and EUBOILER4, stating the date that each boiler permanently ceased operation within 7 days of permanently ceasing operation. (R 336.1201(3))

VIII. STACK/VENT RESTRICTIONS

1. The permittee shall meet all Stack/Vent Restriction(s) as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

IX. OTHER REQUIREMENTS

- 1. The permittee shall meet all Other Requirement(s) as required for FGPOWERHOUSE in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The permittee shall permanently cease operation of EUBOILER2, EUBOILER3, and EUBOILER4 no later than December 31, 2015. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER2, EUBOILER3, or EUBOILER4 upon the submittal of a notification of permanently ceasing operation or upon December 31, 2015, whichever comes first. (R 336.1201(3))

3. The conditions in FGPOWERHOUSE shall no longer apply to EUBOILER1 upon the submittal of a notification of permanently ceasing burning coal or upon December 31, 2015, whichever comes first. (R 336.1201(3))

Footnotes:

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

The following conditions apply to: FGASHSYSTEM

<u>DESCRIPTION:</u> System for the conveyance and storage of ash, from collection at the boiler bottoms of FGPOWERHOUSE through conveyance to the disposal site. Fabric filter controls exist on EUASHSILO and on EUASHCONVEYOR.

Emission Units: EUASHCONVEYOR, EUASHSILO

POLLUTION CONTROL EQUIPMENT: Fabric filters.

I. EMISSION LIMITS

1. The permittee shall meet all Emissions Limit(s) as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

II. MATERIAL LIMITS

1. The permittee shall meet all Material Limit(s) as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall meet all Process/Operational Restriction(s) as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall meet all Design/Equipment Parameter(s) as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

V. TESTING/SAMPLING

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

1. The permittee shall meet all Testing/Sampling requirements as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall meet all Monitoring/Recordkeeping requirements as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

VII. REPORTING

1. The permittee shall meet all Reporting requirements as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

2. The permittee shall submit a notification for each, EUASHCONVEYOR and EUASHSILO, stating the date that each permanently ceases operation within 7 days of permanently ceasing operation or within 7 days of December 31, 2015, whichever comes first. (R 336.1201(3))

VIII. STACK/VENT RESTRICTIONS

1. The permittee shall meet all Stack/Vent Restriction(s) as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))

IX. OTHER REQUIREMENTS

- 1. The permittee shall meet all Other Requirement(s) as required for FGASHSYSTEM in Section 2 of ROP No. MI-ROP-M4199-2010, or most recent ROP. (R 336.1201(3))
- 2. The permittee shall permanently cease operation of EUASHCONVEYOR and EUASHSILO no later than December 31, 2015. The conditions in FGASHSYSTEM shall no longer apply to EUASHCONVEYOR and EUASHSILO upon the submittal of a notification of permanently ceasing operation or upon December 31, 2015, whichever comes first. (R 336.1201(3))

Footnotes:

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

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

<u>DESCRIPTION:</u> Requirements for existing natural gas-fired 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: EUBOILER1

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

1. The permittee shall burn only natural gas in any unit in FG63-5D-EXNGBLR. (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))
 - 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.6, 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. If the permittee is required to meet an applicable tune-up work practice standard, the permittee must conduct a tune-up beginning with the compliance date as defined in 40 CFR 63.7495, stated in SC IX.3, annually or once every 5 years for boilers with a continuous oxygen trim system that maintains an optimum air to fuel ratio.
 - a. An annual performance tune-up must be conducted according to 40 CFR 63.7540(a)(10), stated in SC IX.6.a. Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13 months after the previous tune-up.
 - b. A 5-year performance tune-up must be conducted according to 40 CFR 63.7540(a)(12), stated in SC IX.6.b. 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. <u>DESIGN/EQUIPMENT PARAMETERS</u>

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 all records required in 40 CFR 63.7555, as they apply to each boiler in FG63 5D EXNGBLR. **(40 CFR 63.7555)**
- 2. The permittee must keep records according to paragraphs (a)(1) and (2) of 40 CFR 63.7555, as listed below. (40 CFR 63.7555(a))
 - a. A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). (40 CFR 63.7555(a)(1))
- 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 notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545, both stated in SC VII.5 and SC VII.6, and in Subpart A of 40 CFR 63. (40 CFR 63.7495(d))
- 2. The permittee must submit a signed statement in the Notification of Compliance Status report that indicates that the permittee conducted a tune-up of the unit. (40 CFR 63.7530(d))

- 3. The permittee must include with the Notification of Compliance Status a signed certification that the energy assessment was completed per the requirements of 40 CFR 63.7530(e). (40 CFR 63.7530(e))
- 4. 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))
- 5. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), and 40 CFR 63.9(b) through (h) that apply to the permittee by the dates specified. (40 CFR 63.7545(a))
- 6. 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). (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), your notification of compliance status must include the certification(s) of compliance listed in paragraph (e)(8)(i) and (ii), as applicable, and signed by a responsible official. (40 CFR 63.7545(e)(8))
- 7. The permittee must submit each report in Table 9 of 40 CFR Part 63, Subpart DDDDD that applies. (40 CFR 63.7550(a))
- 8. 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.10, 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.6.a, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.6.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 June 30 or December 31, whichever date is the first date that occurs at least 180 days (or 1 or 5 years, as applicable, if submitting an annual or 5-year compliance report) 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 compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler in 40 CFR 63.7495, stated in SC IX.3. The first annual or 5-year compliance report must be postmarked or submitted no later than January 31. (40 CFR 63.7550(b)(2), (40 CFR 63.10(a)(5))
 - c. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual 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 compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the semiannual reporting period. Annual and 5-year compliance reports must be postmarked or submitted no later than March 15. (40 CFR 63.7550(b)(4), (40 CFR 63.10(a)(5))

- 9. A compliance report must contain the following information depending on how the permittee chooses to comply with the limits set in this rule. (40 CFR 63.7550(c))
 - a. If the facility is subject to the requirements of a tune up the permittee must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv), (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.6.a, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.6.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))
- 10. The permittee must submit the reports according to the procedures specified in 40 CFR 63.7550, as applicable. If able, the permittee must submit all reports required by Table 9 using CEDRI. (40 CFR 63.7550(h))

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 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))
 - 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 commence 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. The permittee must be in compliance with the emission limits, work practice standards, and operating limits of 40 CFR Part 63, Subpart DDDDD. These limits apply at all times the affected unit is operating. (40 CFR 63.7505(a))
- 5. 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.6.a, and the schedule described in 40 CFR 63.7540(a)(13), stated in SC IX.6.c, for units that are not operating at the time of their scheduled tune-up. (40 CFR 63.7515(g))

- 6. 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. 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 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_x 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. (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))
- 15. 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)**