

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°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
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
MDNRE	Michigan Department of Natural Resources and Environment (Department)	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than or equal to 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than or equal 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO ₂	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

* 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, 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-BOILER#2	Steam Generating Unit No. 2 – A 2280 MMBtu per hour capacity boiler fueled by pulverized coal, natural gas, blast furnace gas, recovered paint solids, and coke oven gas. Unit No. 2 is equipped with Low-NOx burners and an electrostatic precipitator.	1/1/1954; 4/17/2001; 4/2011	FG-BOILERS_2_&_3, FG-RPSProject
EU-BOILER#3	Steam Generating Unit No. 3 – A 2670 MMBtu per hour capacity boiler fueled by pulverized coal, natural gas, blast furnace gas, recovered paint solids, and coke oven gas. Unit No. 3 is equipped with Low-NOx burners and an electrostatic precipitator.	1/1/1955; 3/21/2000; 4/2011	FG-BOILERS_2_&_3, FG-RPSProject
EU-FLYASH_SILO#1	Fly ash silo with dust collector.	1/1/1954 4/2011	FG-FLYASH-HANDLG, FG-RPSProject
EU-FLYASH_SILO#2	Fly ash silo with dust collector.	1/1/1954 4/2011	FG-FLYASH-HANDLG, FG-RPSProject
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.			

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-BOILERS_2_&_3	Steam Generating Unit Nos. 2 and 3 – 2280 MMBtu per hour and 2670 MMBtu per hour capacity boilers, respectively. Each boiler is fueled by pulverized coal, natural gas, blast furnace gas, recovered paint solids, and coke oven gas. Each boiler is equipped with Low-NOx burners and an electrostatic precipitator.	EU-BOILER#2, EU-BOILER#3
FG-FLYASH-HANDLG	Two silos storing boiler flyash collected in the electrostatic precipitators servicing Steam Generating Unit Nos. 2 and 3. Each silo is equipped with a dust collector (baghouse) for particulate control.	EU-FLYASH_SILO#1, EU-FLYASH_SILO#2
FG-RPSProject	The project is to include recovered paint solids (RPS) as part of the fuel burned in Steam Generating Units #2 and #3. There are no equipment changes to accommodate the RPS. Based on the actual-to-projected-actual applicability test, this results in a minor modification for purposes of major source review for both attainment area and nonattainment area regulations.	EU-BOILER#2, EU-BOILER#3, EU-FLYASH_SILO#1, EU-FLYASH_SILO#2

The following conditions apply to: FG-BOILERS 2 & 3

DESCRIPTION: Steam Generating Unit Nos. 2 and 3 – 2280 MMBtu per hour and 2670 MMBtu per hour capacity boilers, respectively. Each boiler is fueled by pulverized coal, natural gas, blast furnace gas, and coke oven gas. Each boiler is equipped with Low-NOx burners and an electrostatic precipitator.

Emission Units: EU-BOILER#2, EU-BOILER#3

POLLUTION CONTROL EQUIPMENT: Low NO_x burners installed on each emission unit. An electrostatic precipitator installed on each unit.

I. EMISSION LIMITS

Permittee shall comply with the following emission limits through December 31, 2016:

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM ^a	0.175 pounds per 1000 pounds of exhaust gases on a wet basis corrected to 50% excess air	Test protocol	Applies individually to EU-BOILER#2 and EU-BOILER#3	GC 13	R 336.1331(1)(a)
2. SO ₂	1.67 pounds per MMBTU heat input based on a sulfur content of 1.0% by weight and a heat content of 12,000 BTU per pound while burning coal	Daily average	Applies individually to EU-BOILER#2 and EU-BOILER#3	SC VI.1	R 336.1401(1), Michigan State Implementation Plan, 40 CFR 52.21(d)
3. SO ₂	43.2 tons per day	Each calendar day	EU-BOILER#2	SC VI.1	40 CFR 52.21(d)
4. SO ₂	50.5 tons per day	Each calendar day	EU-BOILER#3	SC VI.1	40 CFR 52.21(d)

^aAs determined through reference test method 5B at R 336.2011 or method 5C at R 336.2012.

The permittee shall comply with the following emission limits on and after January 1, 2017:

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.175 pounds per 1000 pounds of exhaust gases on a wet basis corrected to 50% excess air	Test protocol	Applies individually to EU-BOILER#2 and EU-BOILER#3	GC 13	R 336.1331(1)(a)
2. SO ₂	1.67 pounds per MMBTU heat input based on a sulfur content of 1.0% by weight and a heat content of 12,000 BTU per pound while burning coal	Daily average	Applies individually to EU-BOILER#2 and EU-BOILER#3	SC VI.1	R 336.1401(1), Michigan State Implementation Plan, 40 CFR 52.21(d)
3. SO ₂	43.2 tons per day	Each calendar day	EU-BOILER#2	SC VI.1	40 CFR 52.21(d)
4. SO ₂	50.5 tons per day	Each calendar day	EU-BOILER#3	SC VI.1	40 CFR 52.21(d)
5. SO ₂	1890 pph	720-clock hour rolling average, as determined at the end of each calendar day	EU-BOILER#2	SC VI.1	R 336.2804, 40 CFR 52.21(d), Section 110 CAA
6. SO ₂	2300 pph	720-clock hour rolling average, as determined at the end of each calendar day	EU-BOILER#3	SC VI.1	R 336.2804, 40 CFR 52.21(d), Section 110 CAA

II. MATERIAL LIMITS

No additional requirements

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EU-BOILER#2 or EU-BOILER#3 unless the Low-NOx burners and the electrostatic precipitator servicing the boiler are installed, maintained, and operated in a satisfactory manner. The electrostatic precipitator shall be activated prior to firing coal in the boiler it services. **(R 336.1331(1)(a), R 336.1910)**
2. The permittee shall operate EU-BOILER#2 and EU-BOILER#3 in accordance with an approved Malfunction Abatement Plan. The permittee shall implement and maintain the Plan. The Plan shall address the Low-NOx burners and electrostatic precipitators. The Plan shall also address abnormal conditions, startup and shutdown, malfunctions, and excess emissions. Subsequent revisions must be approved by the District Supervisor, AQD. **(R 336.1910, R 336.1911)**
3. No coke oven gas shall be burned in EU-BOILER#2 or EU-BOILER#3 except that which has been processed. The contract between the permittee and its coke oven gas supplier shall prohibit the transfer of unprocessed coke oven gas to the permittee. The permittee shall maintain a copy of the contract on file and it shall be made available to the Department upon request.¹ **(R 336.1224, R 336.1225, R 336.1901)**
4. The permittee shall implement the measures identified in the protocols for the minimization of carbon monoxide emissions from EU-BOILER#2 and EU-BOILER#3. Revisions to the protocol must be approved by the AQD. **(40 CFR 52.21(b)(2)(iii)(h))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate the electrostatic precipitator (ESP) servicing either EU-BOILER#2 or EU-BOILER#3 unless the ESP is equipped with a saturable core reactor, silicon-controlled rectifier linear reactor, or equivalent type automatic control system. **(R 336.1910)**
2. Each transformer-rectifier set of each ESP servicing either EU-BOILER#2 or EU-BOILER#3 shall be capable of operating at the optimum spark-limited mode and shall meter and display the primary RMS voltage and amperage, the average secondary amperage, and the average spark rate. The requirement to meter and display the average spark rate shall not apply if the automatic controller employs solid state circuitry to preset power levels based on sparking rate limits. **(R 336.1910)**

V. TESTING/SAMPLING

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

1. On a periodic basis within 3 calendar years of the previous test, or upon request of AQD, the permittee shall verify and quantify the PM emission rate (in pounds per 1000 pounds of exhaust gases on a wet basis at 50% excess air) from EU-BOILER#2 and from EU-BOILER#3, by testing at permittee's expense and in accordance with Department requirements. The tests shall be in accordance with reference method 5B at R 336.2011 or reference method 5C at R 336.2012 unless an alternative test method is approved by the AQD. Not less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Not less than 7 days prior to the tests, the permittee shall notify the AQD in writing of the time and place of the tests and who shall conduct them. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331(1)(a), R 336.1331(2), R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5-S1 of ROP No: MI-ROP-B2810-2012

VI. MONITORING/RECORDKEEPING

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

1. For EU-BOILER#2 and EU-BOILER#3, the permittee shall monitor and record sulfur dioxide emissions, nitrogen oxides emissions, carbon dioxide emissions, and exhaust gas flow on a continuous basis according to the monitoring requirements in 40 CFR 75. The continuous emission monitoring system (CEMS) for SO₂ (comprising the monitors for sulfur dioxide concentration and for carbon dioxide concentration when monitoring for emissions on a pounds per MMBTU basis; comprising the monitors for sulfur dioxide concentration and for exhaust gas flow when monitoring for emissions on a tons per day basis) shall be used for compliance demonstrations with the SO₂ emission limitations at Conditions I.2, I.3, and I.4 during each calendar day wherein the SO₂ CEMS collects at least one quality-assured monitor operating hour, as defined at 40 CFR 72.2. When an SO₂ CEMS collects at least one hour but less than twenty-four hours of quality assured data (i.e. there are between one and twenty-three hours, inclusive, within the calendar day wherein the SO₂ CEMS is not operating and/or operating "out-of-control", as defined at 40 CFR 72.2), the permittee shall implement the procedures at Subpart D of 40 CFR 75 to calculate SO₂ emissions for hours wherein quality assured data was not collected. When an SO₂ CEMS fails to collect at least one quality-assured monitor operating hour within a calendar day, the permittee shall determine compliance with the corresponding SO₂ emission limitation at Conditions I.2, I.3, or I.4 by sampling for the heat content and sulfur content of the coal combusted within the emission unit during the calendar day and by determining the amount of coal combusted in the emission unit during the calendar day, using methods acceptable to the AQD. **(R 336.1401(1), R 336.2804, 40 CFR 52.21(d), 40 CFR 75, Michigan State Implementation Plan, Section 110 CAA)**
2. For EU-BOILER#2 and EU-BOILER#3, the permittee shall monitor and record visible emissions on a continuous basis according to the monitoring requirements in 40 CFR 75.14(a) which specify compliance with Performance Specification 1 of Appendix B to 40 CFR Part 60. The continuous monitoring system for visible emissions shall be used for compliance demonstration for the visible emissions limitations in General Condition 11 as applicable to EU-BOILER#2 and EU-BOILER#3. **(R 336.1301(1)(a), R 336.2101(1)(a), R 336.2150(1)(a), 40 CFR 75.14(a))**
3. The permittee shall implement and maintain a quality assurance and quality control program for the continuous monitoring devices installed. **(40 CFR 75, R 336.1401(1), 40 CFR 52.21(d), Michigan State Implementation Plan, R 336.2804, Section 110 CAA)**
4. The permittee shall keep a written record of the measures implemented to minimize the emission of carbon monoxide. **(40 CFR 52.21(b)(2)(iii)(h))**
5. The permittee shall utilize COMS-recorded opacity as an indicator of the emission unit's compliance with the particulate matter limit, except during periods of monitoring system malfunction, system repairs, or quality assurance activities. An excursion is defined as two or more consecutive, 1-hour block average opacity values greater than 20% as measured by COMS and recorded by the DAHS. This condition does not affect compliance with R 336.1301. **(40 CFR 64.6(c)(1)(i) & (ii), (c)(2), (c)(3), and 64.7(c))**
6. The permittee shall operate the COMS during all required periods when the coal-fired boiler is operating. Data recorded during monitoring malfunctions, repair activities and QA/QC operations shall not be used for 40 CFR 64 compliance. **(40 CFR 64.6(c)(3), 64.7(c))**
7. Upon detecting CAM exceedances/excursions, the permittee shall restore operation of the emission unit, control device, and associated pollutant capture system equipment to normal/compliant operation. CAM exceedances/excursions trigger initial inspections, corrective action(s), and recordkeeping of the probable cause & corresponding resolution. **(40 CFR 64.7(d))**

See Appendices 3-S1, 4-S1, and 7-S1 of ROP No: MI-ROP-B2810-2012

VII. REPORTING

1. The permittee shall submit to the Chief of the Air Compliance Branch, U.S. Environmental Protection Agency and the District Supervisor of the Air Quality Division, within 30 days of the end of the calendar quarter a written report for the calendar quarter containing the days of operation and the sulfur dioxide emission rates (average emissions in pounds per MMBTU and emissions in tons per day) for EU-BOILER#2 and EU-BOILER#3. **(R 336.1401(1), 40 CFR 52.21(d), Michigan State Implementation Plan)**
2. For the COMS, the permittee shall submit to the District Supervisor and the Technical Programs Unit Supervisor, Air Quality Division, and to the Chief of the Air Compliance Branch, U.S. Environmental Protection Agency, within 30 days of the end of the calendar quarter, a written report for each calendar quarter which shall include all of the information listed below.
 - a. Excess emissions and the nature and cause of excess emissions, if known, as follows:
 - i. For opacity measurements, the report shall consist of the magnitude, in actual percent opacity, of all 6-minute averages of opacity more than the applicable opacity standard for each hour of operation (all allowable exceptions are to be deducted prior to determining the excess averages of opacity). Average values shall be obtained by integration over the averaging period or by arithmetically averaging a minimum of 24 equally spaced, instantaneous opacity measurements per 6 minutes.
 - b. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of repairs or adjustments made.
 - c. If the monitoring system has not been inoperative, repaired, or adjusted, and if no excess emissions occurred, a statement attesting to this fact.
(R 336.2170(1))
3. Permittee shall report sulfur dioxide, nitrogen oxide and carbon dioxide emissions, volumetric flow, and opacity data in accordance with 40 CFR Part 75 (Continuous Emission Monitoring). **(40 CFR 75)**
4. The permittee shall perform an annual audit of the continuous emissions monitoring system for visible emissions (COMS) using the procedures set forth in USEPA Publication 450/4-92-010 entitled "Performance Audits Procedures for Opacity Monitors", or a procedure acceptable to the AQD. Within 30 days after the completion of the audit, the results of the annual audit shall be submitted to the AQD. **(40 CFR 64.6(c)(1)(iii))**
5. Semiannually or more frequently report Compliance Assurance Monitoring (CAM) summary information on the number, duration, and cause of exceedances/excursions in the reporting period, and the corrective actions taken in response. If there were no exceedances/excursions in the reporting period, then this report shall include a statement that there were no exceedances/excursions. **(40 CFR 64.9(a)(2)(i), R 336.1213(3))**
6. Semiannually or more frequently report Compliance Assurance Monitoring (CAM) summary information on the monitor downtime in the reporting period. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**
7. Starting with the first calendar quarter of 2017 and every quarter thereafter, in accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report and summary report in an acceptable format to the department 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 excess emission report shall include the following information:
 - a. A report of each exceedance above the SO₂ limitations. This includes the date, time, magnitude, cause and corrective actions for all occurrences during the reporting period.
 - b. A report of all periods of continuous emission monitoring system downtime, any downtime sampling and analysis completed, and corrective action.

- c. A report of any periods that any component of the continuous emission monitoring system exceeds the instrument range.
- d. If no exceedances or continuous emission monitoring system downtime occurred during the reporting period, the company shall report that fact.

(R 336.2804, 40 CFR 52.21(d), Section 110 CAA)

See Appendix 8-S1 of ROP No: MI-ROP-B2810-2012

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
No additional requirements	No additional requirements	No additional requirements	No additional requirements

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the acid rain permitting provisions of 40 CFR, Part 72.1 to 72.94, as outlined in a complete Phase II, Acid Rain Permit issued by the AQD. Phase II, Acid Rain Permit No. MI-AR-1740-2012 is hereby incorporated into this ROP as Appendix 10-S1. **(R 336.1299(2)(a))**
2. The permittee shall not allow the emission of an air pollutant to exceed the amount of any emission allowances that an affected source lawfully holds as of the allowance transfer deadline pursuant to Rule 299(2)(a) and 40 CFR, Part 72.9(c)(1)(i). **(R 336.1299(2)(a), 40 CFR 72.9)**
3. The permittee shall comply with the CAIR SO2 Trading Program provisions of 40 CFR Part 97.201 through 97.288, as adopted and modified by R 336.1420, and as outlined in any complete CAIR SO2 permit issued by the AQD. CAIR SO2 Permit No. MI-SO2-1740-2009 is hereby incorporated into this ROP as Appendix 11-S1. **(R 336.1420)**
4. The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total SO2 emissions for the control period from the source pursuant to 40 CFR Part 97.254. **(40 CFR 97.254)**
5. The permittee shall comply with the CAIR NOx Annual Trading Program provisions of 40 CFR Part 97.101 through 97.188, as adopted and modified by R 336.1802a, R 336.1803, R 336.1821, and R 336.1830 through R 336.1834, and as outlined in any complete CAIR NOx Annual permit issued by the AQD. CAIR NOx Annual Permit No. MI-NOA-1740-2009 is hereby incorporated into this ROP as Appendix 12-S1. **(R 336.1821)**
6. The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NOx emissions for the control period from the source pursuant to 40 CFR Part 97.154. **(40 CFR 97.154)**
7. The permittee shall comply with the CAIR NOx Ozone Trading Program provisions of 40 CFR Part 97.301 through 97.388, as adopted and modified by R 336.1802a, R 336.1803, and R 336.1821 through R 336.1826, and as outlined in any complete CAIR NOx Ozone permit issued by the AQD. CAIR NOx Ozone Permit No. MI-NOO-1740-2009 is hereby incorporated into this ROP as Appendix 13-S1. **(R 336.1821)**

8. The permittee shall hold allowances for compliance deductions in the source's compliance account as of the allowance transfer deadline in an amount not less than the total NOx emissions for the control period from the source pursuant to 40 CFR Part 97.354. **(40 CFR 97.354)**
9. The permittee shall promptly notify AQD for the need to modify the CAM Plan if the existing plan is found to be inadequate and shall submit a proposed modification to the ROP if necessary. **(40 CFR 64.7(e))**
10. The permittee shall properly maintain the monitoring systems, including maintaining necessary parts for routine repairs of monitoring equipment. **(40 CFR 64.7(b))**
11. By June 20, 2012, the mercury designated representative of any affected Electric Generating Unit (EGU), as this term is defined in the Part 15 rules, shall submit to the department, an administratively complete permit application covering each affected EGU, unless the Part 15 rules are superseded per Rule 1514(1) due to publication of an applicable federal Mercury control rule. **(R 336.2512(1)(a)(i), R 336.2514(1))**
12. Effective January 1, 2015, an affected existing EGU shall meet the requirements of Part 15 **EMISSION LIMITATIONS AND PROHIBITIONS—MERCURY**, unless the Part 15 rules are superseded per Rule 1514(1) due to publication of an applicable federal Mercury control rule. **(R 336.2503(1), R 336.2514(1))**
13. The permittee shall comply with applicable requirements of the federal National Emissions Standards for Hazardous Air Pollutants as set forth in 40 CFR 63, Subparts A and UUUUU for EU-BOILER#2 and EU-BOILER#3. The permittee shall comply with all notice requirements, emissions standards and continuous emissions monitoring, recordkeeping, and reporting requirements as required in 40 CFR 63, Subparts A and UUUUU. All emission and operating data shall be kept on file for a period of at least five years and made available to the AQD upon request. **(40 CFR 63 Subparts A and UUUUU)**

Footnotes:

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

The following conditions apply to: FG-FLYASH-HANDLG

DESCRIPTION: Two silos storing boiler flyash collected in the electrostatic precipitators servicing Steam Generating Unit Nos. 2 and 3. Each silo is equipped with a dust collector (baghouse) for particulate control.

Emission Units: EU-FLYASH_SILO#1, EU-FLYASH_SILO#2

POLLUTION CONTROL EQUIPMENT: Each silo is equipped with a dust collector (baghouse) for particulate control.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.10 pounds per 1000 pounds of exhaust gases	Test protocol	Applies individually to EU-FLYASH_SILO#1 and EU-FLYASH_SILO#2	GC 13	R 336.1331(1)(a)

II. MATERIAL LIMITS

No additional requirements

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Each dust collector shall be installed, maintained, and operated in a satisfactory manner and in accordance with existing Air Pollution Control Rules and existing law. **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

No additional requirements

V. TESTING/SAMPLING

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

No additional requirements

VI. MONITORING/RECORDKEEPING

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

1. Permittee shall perform daily visual emissions observations (non-certified) during each day the emission unit is in operation. The visual observations shall be performed in accordance with U.S. EPA Method 22. If visible emissions are observed, the permittee either shall shutdown the loading to the emission unit exhibiting the visible emissions or shall conduct visual observations in accordance with U.S. EPA Method 9 by an observer certified in U.S. EPA Method 9. Permittee shall maintain records of all visual observations performed and the records shall be made available to the Department upon request. **(R 336.1910)**
2. Permittee shall conduct regular inspections on the dust collectors for the purpose of determining the operational condition of the baghouse and, if necessary, the reason for malfunction or failure. **(R 336.1910)**

3. After observing visible emissions from a dust collector, the permittee shall immediately conduct an inspection to determine the operational condition of the dust collector and, if necessary, the reasons for failure or malfunction of the bags, metal housings, fans, blowers, hopper bottom discharge valve, reverse air dampers or pulse jets (whichever is applicable), access doors, and gaskets. Any repairs and corrective actions needed to address the causes of malfunction or failure shall be performed immediately. Records shall be maintained of the event, including the date and time of the event, the date and time the emission unit and dust collector ceased operation or the date and time and result of the Method 9 evaluation, the cause(s) of malfunction or failure, the repairs and the corrective action taken. **(R 336.1910)**

VII. REPORTING

No additional requirements

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
No additional requirements	No additional requirements	No additional requirements	No additional requirements

IX. OTHER REQUIREMENTS

No additional requirements

Footnotes:

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

The following conditions apply to: FG-RPSProject

DESCRIPTION: The project is to include recovered paint solids (RPS) as part of the fuel burned in Steam Generating Units #2 and #3. There are no equipment changes to accommodate the RPS. Based on the actual-to-projected-actual applicability test, this results in a minor modification for purposes of major source review for both attainment area and nonattainment area regulations.

Emission Units: EU-BOILER#2, EU-BOILER#3, EU-FLYASH_SILO#1, EU-FLYASH_SILO#2

POLLUTION CONTROL EQUIPMENT: No additional requirements

I. EMISSION LIMITS

No additional requirements

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Recovered paint solids (RPS) burned	40 tons per day	Calendar day	FG-RPSProject	SC VI.4	R 336.1205(1)(a)(ii)
2. RPS burned	10,000 tons per year	12-month rolling time period*	FG-RPSProject	SC VI.5	R 336.1205(1)(a)(ii)

* 12-month rolling time period as determined at the end of each calendar month

III. PROCESS/OPERATIONAL RESTRICTIONS

No additional requirements

IV. DESIGN/EQUIPMENT PARAMETERS

No additional requirements

V. TESTING/SAMPLING

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

1. The permittee shall verify PM2.5 emission rates from EU-BOILER#2 while burning RPS by testing at owner's expense, in accordance with Department requirements. The permittee must complete the test once every calendar year for calendar years 2013, 2014, and 2015. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2902(6), 40 CFR Part 51 Appendix S)**

2. The permittee shall verify PM_{2.5} emission rates from EU-BOILER#3 while burning RPS by testing at owner's expense, in accordance with Department requirements. The permittee must complete the test once every calendar year for calendar years 2013, 2014, and 2015. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2902(6), 40 CFR Part 51 Appendix S)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.2902(6), 40 CFR Part 51 Appendix S)**
2. The permittee shall calculate and keep records of PM_{2.5} and SO₂ emissions from EU-BOILER#2 and EU-BOILER#3 in tons per calendar year. PM_{2.5} emission calculations for this Special Condition shall rely on data from tests acceptable to the AQD pursuant to FG-RPSProject SC V.1 and SC V.2, unless the AQD District Supervisor approves the use of alternate data. The recordkeeping period shall begin on April 1, 2011, and shall continue for 60 consecutive calendar months thereafter. The calculations and records shall be kept in the format described in Appendix 1, or an alternative format acceptable to the AQD Permit Section Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.2902(2)(c), 40 CFR Part 51 Appendix S)**
3. The permittee shall calculate and keep records of PM_{2.5} emissions from EU-FLYASH_SILO#1 and EU-FLYASH_SILO#2 in tons per calendar year. The recordkeeping period shall begin on April 1, 2011 and shall continue for 60 consecutive calendar months thereafter. The calculations and records shall be kept in the format described in Appendix 1, or an alternative format acceptable to the AQD Permit Section Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.2902(2)(c), 40 CFR Part 51 Appendix S)**
4. The permittee shall monitor and record, in a satisfactory manner, the RPS burned in FG-RPSProject for each calendar day, on a daily basis. **(R 336.1205(1)(a)(ii))**
5. The permittee shall monitor and record, in a satisfactory manner, the RPS burned in FG-RPSProject for each calendar month and for the 12-month rolling time period ending that month, on a monthly basis. **(R 336.1205(1)(a)(ii))**

VII. REPORTING

1. The permittee shall submit records of PM_{2.5} and SO₂ emissions from FG-RPSProject in tons per calendar year to both the AQD Permit Section Supervisor and the AQD District Supervisor within 60 days following the end of each calendar year identified in FG-RPSProject SC VI.2 and SC VI.3. The records shall also identify the following:
 - a. Exceedances of the yearly actual emission of PM_{2.5} and SO₂ above the baseline actual emissions (BAE) by a significant amount, and
 - b. Whether the year's actual emissions differ from the pre-construction projection. The pre-construction projection is the sum of the projected actual emissions from each existing emission unit included in the Actual-to-Projected-Actual Applicability Test used for FG-RPSProject.

The report shall contain the name, address, and telephone number of the facility; the annual emissions as calculated pursuant to FG-RPSProject, SC VI.2 and SC VI.3; and any other information the owner or operator wishes to include (i.e., an explanation why emissions differ from the pre-construction projection). **(R 336.2902(2)(c), 40 CFR Part 51 Appendix S)**

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-BOILER#2	145 ¹	385 ¹	R 336.1225
2. SV-BOILER#3	154 ¹	385 ¹	R 336.1225

IX. OTHER REQUIREMENTS

1. At any time during the period when testing is required by FG-RPSProject SC V.1 or SC V.2, the permittee may notify the AQD District Supervisor, in writing, that the permittee will no longer receive RPS or burn RPS in either EU-BOILER#2 or EU-BOILER#3. Upon sending such a notification, the permittee shall immediately cease receiving and burning RPS, and the following shall all apply. **(R 336.1201(1))**
 - a. The permittee shall no longer be authorized to receive or burn RPS under this permit. A new Permit to Install shall be required to resume receiving or burning RPS.
 - b. No more testing shall be required under FG-RPSProject SC V.1 or SC V.2.

Footnotes:

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

**APPENDIX 1
 Recordkeeping Provisions for Source Using
 Actual to Projected-Actual Applicability Test**

All information in this Appendix shall be maintained pursuant to R 336.2902(6) and 40 CFR Part 51, Appendix S, starting on April 1, 2011 and for 60 consecutive calendar months thereafter, and shall be provided to the Department annually.

A. Project Description:

The project is to burn recovered paint solids (RPS) in Units 2 and 3, EU-BOILER#2 and EU-BOILER#3, respectively. Before shipment, DTE Energy's lab analyzes a sample and evaluates the shipment for acceptability. Upon meeting requirements, the material is approved for shipment. Once the material arrives on site, it is not stored on the ground for more than 24 hours, and is promptly mixed in with coal and fed to the plant for burning.

B. Applicability Test Description:

Projected emissions were based on PROMOD and a five-year projection.

C. Emission Limitations

Table C

Emission Unit/ Flexible Group ID	Pollutant	Emissions (tpy)			Reason for Exclusion
		Baseline Actual	Projected Actual	Excluded	
FG-BOILERS_2_&_3	PM2.5	577.7	578.5	9.5	The Equipment Availability Factor for each unit during the baseline period shows that the unit was capable of accommodating the operating rate during the projection period.
FG-BOILERS_2_&_3	SO ₂	14,836.3	14,167.2	0	No emissions excluded.
FG-FLYASH-HANDLG	PM2.5	0.004	0.004	0	No emissions excluded.