



Michigan Department of Environmental Quality
Air Quality Division

EFFECTIVE DATE: August 1, 2005
REVISED DATE(S): August 29, 2006, May 22, 2008

ISSUED TO

**Consumers Energy Company
J. H. Campbell Plant**

State Registration Number (SRN): B2835

LOCATED AT
17000 Croswell, West Olive, Michigan 49460

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B2835-2005b

Revision Date: August 29, 2006

Expiration Date: August 1, 2010

Administratively Complete ROP Renewal Application
Due Between January 30, 2009 and January 31, 2010

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

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B2835-2005b

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to PA 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

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AUTHORITY AND ENFORCEABILITY

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

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

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

In accordance with Section 5507 of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

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

EUBOILER3
EMISSION UNIT CONDITIONS

DESCRIPTION

A 7720 MMBtu/hr dry bottom, wall-fired boiler with fuel oil startup capability.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Electrostatic precipitator (ESP) and sulfur trioxide flue gas conditioning; low-NOx burners; and Selective Catalytic Reduction (SCR) system (to be installed).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	20% ²	Per 6-minute period except for one 6-minute period per hour of not more than 27%	EGBOILER3	S.C. VI.2 (Continuous Opacity Monitoring System (COMS); see Appendix 1-3.4)	40 CFR 60.42(a)(2)
2. PM	0.10 pound per MMBtu heat input ²	At all times, as verifiable through required stack testing	EGBOILER3	S.C. V.1 S.C. VI.2 S.C. VI.4 through S.C. VI.13 (Stack test; CAM based on COMS; see Appendices 1-3.5 and 1-5)	40 CFR 60.42(a)(1)
3. PM	370 pounds per hour ²	At all times, as verifiable through required stack testing	EGBOILER3	S.C. V.1 S.C. VI.2 S.C. VI.4 through S.C. VI.13 (Stack test; CAM based on COMS; see Appendices 1-3.4 and 1-5)	R 336.1205(3)

7. The permittee shall complete daily COMS zero and calibration tests; conduct necessary preventative maintenance; and demonstrate adequate performance through an annual monitor audit. **(40 CFR 64.6(c)(1)(iii))**
8. An excursion will occur if opacity in excess of 20%, except for one 6-minute average per hour of not more than 27% opacity, is recorded for a duration exceeding two hours. **(40 CFR 64.6(c)(2))**
9. The permittee shall conduct all required monitoring per the CAM Plan attached as **Appendix 1-3.5** and otherwise satisfy the requirements specified in 40 CFR 64.7 through 40 CFR 64.9. **(40 CFR 64.6(c)(3), 40 CFR 64.7(a))**
10. The permittee shall properly maintain the COMS, including maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**
11. The required COMS shall collect data for all required intervals when the emission unit is operating. **(40 CFR 64.7(c))**
12. The permittee shall restore operation of the emission unit, control device, and associated pollutant capture system equipment to normal/compliant operation as quickly as possible in response to any noted exceedance or excursion. **(40 CFR 64.7(d))**
13. The permittee shall promptly notify AQD for the need to modify the CAM Plan if it is found to be inadequate, and shall submit a proposed modification to the ROP if necessary. **(40 CFR 64.7(e))**

See Appendices 1-3.4 (Continuous Opacity Monitoring Systems), 1-3.5 (CAM Plan – EUBOILER3), and 1-3.6 (Continuous Emissions Monitoring Systems)

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be received by appropriate AQD district office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Quarterly reports of emissions and operating information pursuant to 40 CFR 60 Subparts A and D, due 30 days following the end of the quarter in which data was collected. **(40 CFR 60, Subparts A and D)**
5. An annual report of Representative Actual Annual Emissions shall be submitted with each first quarter report of emissions required above. The report will document any net increase of emissions as a result of the increased capacity of EUBOILER3. The report will be submitted each year for five years following completion of the capacity increase. **(40 CFR 52.21(b)(21)(v))**
6. Each semiannual report of monitoring deviations shall include summary information on the number, duration, and cause of exceedances/excursions in the reporting period; and the corrective actions taken in response. **(40 CFR 64.9(a)(2)(i))**
7. Each semiannual report of monitoring deviations shall include summary information on monitor downtime in the reporting period. **(40 CFR 64.9(a)(2)(ii))**
8. Each semiannual report of monitoring deviations shall include a description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period, if appropriate. If a QIP has been completed, the report shall include documentation that the QIP has been implemented, and a discussion pertaining to whether the QIP implementation has reduced the likelihood of excursions or exceedances. **(40 CFR 64.9)**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

1-3.5 Compliance Assurance Monitoring (CAM) Plan: EUBOILER3

**Compliance Assurance Monitoring (CAM) Plan
 J. H. Campbell Boiler 3 Electrostatic Precipitators**

I. BACKGROUND

Emission Unit

Description: One nominal 7,720 MMBtu/hr coal-fired electric utility boiler with fuel oil startup (Unit 3)

Identification: EUBOILER3 (Unit 3)

Facility: J. H. Campbell Plant
 17000 Croswell
 West Olive, MI 49460

Applicable Regulation, Emission Limit, Monitoring Requirements

Renewable Operating Permit No: 199600309 (Renewed as MI-ROP-B2835-2005)

Emission Limits:

Particulate Matter 0.10 lbs. per MMBtu heat input, 40 CFR 60, Subpart D, Section 60.42(a)(2)

Opacity 20% opacity based on 6-minute average, except for one 6-minute average per hour of not more than 27% opacity, Rule 301

Monitoring requirements: Continuous opacity monitoring using a Continuous Opacity Monitoring System (COMS)

Control Technology

Electrostatic precipitator (ESP). Pre-control potential emissions of PM are more than 100 tons annually. Efficiency rate of the ESP exceeds 99%. Uncontrolled emissions are approximately 29 tons per hour.

II. MONITORING APPROACH

The key elements of the monitoring approach for PM are presented in Table 1. Opacity will be used as the primary performance indicator for demonstrating compliance with the PM mass emission limit.

Table 1 Monitoring Approach

	COMS Opacity
Indicator	Visible emissions (Opacity) will be monitored continuously by a certified COMS installed in the ducts leading into the stack for Unit 3.
Indicator Range	An excursion is defined as any continuous two-hour duration exceeding 20%, except for one 6-minute average per hour of not more than 27% opacity. Excursions trigger an investigation, corrective action and reporting requirement.