MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

November 15, 2013

PERMIT TO INSTALL
143-13

ISSUED TO
Newberry Correctional Facility

LOCATED AT
13747 East County Road 428
Newberry, Michigan

IN THE COUNTY OF
Luce

STATE REGISTRATION NUMBER
P0468

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: **October 24, 2013**	
DATE PERMIT TO INSTALL APPROVED: **November 15, 2013**	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	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO_2e	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_2S	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 less than 10 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM less than 2.5 microns diameter
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.

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
EUB1	Natural gas and distillate oil fired firetube boiler with a heat input of 20.9 million Btu per hour.	PTI Issuance	
EUB4	Cleaver Brooks natural gas and distillate oil fired firetube boiler with a heat input of 33.5 million Btu per hour.	1995, modified in 2005	
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 ID	Flexible Group Description	Associated Emission Unit IDs
FGBOILERS	Two firetube boilers, one boiler (EUB1) is fired with both natural gas and distillate oil, the second boiler (EUB4) is fired with both natural gas and distillate oil.	EUB1 EUB4
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

The following conditions apply to: FGBOILERS

DESCRIPTION: Two firetube boilers, one boiler (EUB1) is fired with both natural gas and distillate, the second boiler (EUB4) is fired with both natural gas and distillate oil.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	16.4 tpy	12-month rolling time period	FGBOILERS	SC VI.4	R 336.2803 R 336.2804

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Fuel Oil	650,000 gallons	12-month rolling time period	FGBOILERS	SC VI.2	R 336.1225

2. The permittee shall burn only pipeline quality natural gas in FGBOILERS. **(R 336.1225, R 336.1702, 40 CFR Part 60 Subpart Dc)**

3. The permittee shall burn diesel fuel, in EUBOILER2 with the maximum sulfur content of 0.5 percent by weight. **(R 336.1225, R 336.1402(1), 40 CFR 60.42c(d))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall operate FGBOILERS in accordance with manufacturer's recommendations for safe and proper operation to minimize emissions during periods of startup, shutdown and malfunction. **(R 336.1912)**

2. The permittee shall not operate EUB1 and EUB4 simultaneously. **(R 336.1205(3)).**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The heat input capacity of EUB1 and EUB4 shall not exceed a maximum of 20.9 and 33.5 million BTU per hour respectively. **(R 336.1225)**

2. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the fuel use for FGBOILERS on a monthly basis. **(R 336.1225)**

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 shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. The permittee shall keep, in a satisfactory manner, monthly fuel use records for FGBOILERS1&2. The records must indicate the type and total amount of each fuel used monthly in FGBOILERS1&2. All records shall be kept on file and made available to the Department upon request. **(R 336.1225, 40 CFR 60.48c(g))**

3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in EUBOILER2, demonstrating that the fuel sulfur content meets the requirement of SC II.5. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1402(1), 40 CFR 60.48c)**

4. The permittee shall keep, in a satisfactory manner, monthly NOx emission calculations for FGBOILERS. All records shall be kept on file and made available to the Department upon request. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

VII. REPORTING

1. The permittee shall submit the following notifications for FGBOILERS1&2 to the AQD District Supervisor in accordance with 40 CFR 60.48c:
   a) A notification of the date when construction was commenced, submitted no later than 30 calendar days after such date.
   b) A notification of the actual date of startup of the source, submitted within 30 calendar days after such date.
   c) The design heat input capacity of FGBOILERS1&2 and identification of fuels to be combusted in the boiler. **(40 CFR 60.48c(a))**

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. SVB1	24.0	49.0	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SVB4	24.0	55.0	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc, as they apply to FGBOILERS1&2. **(40 CFR Part 60 Subparts A & Dc)**

2. The permittee shall perform biennial tune-ups of EUB1 as specified in 40 CFR 63.11223.

3. The permittee shall perform an initial tune-up of EUB4 and every two years after the initial tune-up. The initial tune-up shall be in accordance with 40 CFR 63.11214 and subsequent tune-ups shall be in accordance with 40 CFR 63.11223.

4. The permittee shall perform a one-time energy assessment for boiler EUB4 in accordance with 40 CFR 63.11237. The energy assessment shall include the following:

   a) A visual inspection of the boiler systems
   b) An evaluation of operating characteristics of the affected boilers systems, specification of energy use systems, operating and maintenance procedures and unusual operating constraints.
   c) An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator.
   d) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
   e) A list of major energy conservation measures that are within the facility's control.
   f) A list of the energy savings potential of the energy conservation measures identified, and
   g) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

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