

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection**

K212035280

FACILITY: MDOC IONIA FACILITIES	SRN / ID: K2120
LOCATION: 1342 WEST MAIN STREET, IONIA	DISTRICT: Grand Rapids
CITY: IONIA	COUNTY: IONIA
CONTACT: Trever LeBarre , Manager of Environmental Health, Fire Safety,	ACTIVITY DATE: 06/27/2016
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance
SUBJECT:	SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:	

Unannounced inspection of Michigan Department of Corrections, Ionia Correctional Facilities.

FACILITY DESCRIPTION

The stationary source is comprised of several correctional facilities located in close proximity to each other. The facilities include Bellamy Creek Correctional Facility, Michigan Reformatory, Richard A. Handlon Correctional Facility and Ionia Correctional.

REGULATORY ANALYSIS

The stationary source has one opt-out permit (PTI#148-15) that covers all processes regulated at the stationary source. The permit covers three existing natural gas-fired steam boilers at the Michigan Reformatory, two of which will be replaced with two smaller natural gas-fired boilers. The permit also covers six existing diesel-fired emergency generators located at the individual facilities. Currently the power plant at the Michigan Reformatory provides steam for all of the facilities and the emergency generators are used in case there is a loss of power from the public utility grid system. In addition to the permit requirements, the two proposed boilers (EU-BOILER4 & EU-BOILER5) are subject to NSPS Dc. The six emergency generators are subject to the NESHAP requirements under Subpart ZZZZ.

COMPLIANCE EVALUATION

Prior to entering the facility a survey was made. No opacity or abnormal odors were noted. At the facility staff consisting of Chris Robinson and Eric Grinstern met with Paul Tefft. Mr. Tefft provided a summary and tour of the power plant at the Michigan Reformatory (with the assistance of the plant operators). Subsequent records were requested from Trever LeBarre, MDOC, with the request being fulfilled by Lillian Woolley, FTC&H. (records attached)

All processes at the stationary source are covered under Opt-Out Permit No. 148-15. The special conditions evaluated during this inspection and compliance status are summarized below.

FG-BOILERS

Flex group includes the three natural gas-fired steam boilers located at the Michigan Reformatory. There are three existing 89.9 MMBtu/hour natural gas-fired boilers at the facility. Two of the unit are being removed and will be replaced by two 40.8 MMBtu/hour gas-fired boilers.

Emission/Material Limits

Each boiler has a NOx limit of 100 lb/MMscf. The emission limit is the emission factor for NOx for a non-low NOx burner using natural gas. Compliance is based on using natural gas.

Design/Equipment Parameters

Requires the installation and operation of a device to monitor and record natural gas usage in FG-BOILERS on a monthly and 12-month rolling time period.

The facility monitors natural gas usage for FG-BOILERS and provided records of usage as requested.

FG-NSPSBOILERS

The two new 40.8 MMBtu/hour gas-fired boilers were not installed at the time of the inspection.

FG-EMGGENS

Flex group includes the six diesel fuel fired emergency generators.

Material Limits

Restricts the sulfur content of the fuel oil used to 500 ppm by weight.

Under contract, the fuel supplied is an ultra-low sulfur diesel (ULSD) that contains a maximum sulfur level of 15 ppm. Review of fuel specifications demonstrated compliance.

Process/Operational Restrictions

Restricts the operation of each engine to no more than 500 hours per year on a 12-month rolling time period.

Records were provided showing hours of operation for each generator. The maximum monthly usage was 8.5 hours.

Design/Equipment Parameters

Requires that each engine be equipped with a non-resettable hour meter to track operating hours.

Staff observed the hour meters on the generators at the Michigan Reformatory.

Records of usage were provided as requested.

FG-FACILITY

Flex group establishes facility-wide opt out limits for NOx and CO.

Emission/Material Limits

Limits NOx and CO each to 89 tpy.

Records of emissions were provided as requested.

Restricts natural gas usage to 1,215 million cubic feet per year.

Records were provided documenting fuel usage.

FINAL COMPLAINT DETERMINATION

Based on this inspection, the facility is in compliance with applicable air quality rules and regulations at this time.

NAME 

DATE 7/14/14

SUPERVISOR 