

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection**

P070936693

FACILITY: SUPERNAP GRAND RAPIDS, LLC		SRN / ID: P0709
LOCATION: 6100 E PARIS AVENUE, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Brandie Koehler, Director of Maintenance Administration		ACTIVITY DATE: 09/21/2016
STAFF: Steve Lachance	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: Self-Initiated Inspection of a Minor Source; FY '016		
RESOLVED COMPLAINTS:		

The purpose of this self-initiated inspection was to assess the facility's ability to comply with PTI No. 91-16, if finalized as in the current DRAFT form. The new owners of this facility inherited equipment from the previous owner (N0677), and PTI No. 91-16 addresses a historical permitting deficiency for certain existing on-site equipment.

The inspection commenced at about 10 AM, Wednesday September 21, 2016. SLachance and CRobinson represented Air Quality Division (AQD), while SUPERNAP Grand Rapids, LLC (a Switch Company) was represented by Ms. Brandie Koehler, Director of Maintenance-Administration; Mr. Gabe Herrera, EVP of Critical Systems, and Ms. Melissa Hillman (Trinity Consultants). The facility is a Data Center; it stores and provides access to electronic data. The facility is of interest to AQD because of the three (3) existing, diesel-fired emergency generator sets currently on-site; and because in-house Permit Application No. 112-16 for 60 additional generator sets incorporates the existing equipment into the required compliance modeling.

The facility is currently considered to be a True Minor source of criteria pollutants and Hazardous Air Pollutants (HAPs). With issuance of PTI No. 112-16 and initiation of construction, the facility's Potential to Emit for certain criteria pollutants will trigger Title V Major Source status.

SLachance provided the DEQ's "Environmental Inspections: Rights and Responsibilities" brochure and provided an overall discussion of the Michigan Environmental Inspection Process.

Each engine observed is a Caterpillar diesel-fired Model 3516 STD serving a 1,750 kW generator.

As drafted, PTI NO. 91-16 contains the following restrictions for the three existing emergency generator sets:

Special Condition II.1; requires the use of ultra low sulfur diesel (ULSD) fuel in the engines. By definition, ULSD contains a maximum sulfur content of 15 ppm (0.0015 percent) by weight.

Ms. Koehler provided an MSDS from their vendor (Crystal Flash Energy; attached) for ULSD fuel. Historical inspections of the source under previous ownership had established purchasing of only ULSD fuels for the entire site (N0677). Ms. Koehler will establish and document that any future specifications or documented receipt for diesel fuel will explicitly state that the fuel is ULSD (15 ppm S) fuel.

Special Condition III.1; limits the use of each engine to 105 hours per year on a 12-month rolling basis as determined at the end of each calendar month.

The actual, final number of hours allowed for each engine per this permit is subject to change as PTI No. 112-16 is reviewed and finalized, but as discussed below, each engine is equipped with a non-resettable hour meter and these readings are recorded after each engine run. Hand-written logs of hours were readily available for each engine and the number of hours recorded matched the number observed on each meter. As of the inspection date, each engine had accumulated the following number of lifetime hours:

	Engine 1	Engine 2	Engine 3
Hours	788.0	750.9	740.4

The engines were installed in 1989. Since acquiring the facility earlier this year, the engines have run for just

short exercises, and each has been logged in the engine-specific record.

Special Condition IV.1; each engine is equipped with the required non-resettable hour meter, as observed and discussed above.

Special Condition IV.2; each engine's generator nameplate was observed and is rated for the 1,750 kW maximum rated power output required by this condition.

Special Conditions VI. 1 and 2; record and present hours of operation for each engine in an acceptable manner.

At this time, the manual log books suffice, but Mr. Herrera indicated that records of operations will be available in any requested format. During the pre-inspection meeting, SLachance discussed "12-month rolling" concepts, and these were clearly familiar to Ms. Hillman.

Special Condition VI.3; the attached MSDS (in conjunction with previous inspections of N0677) establishes the use of ULSD from Crystal Flash Energy. By definition, ULSD fuels contain a maximum sulfur content of 15 ppm by weight (0.0015%) and establish documented compliance with the sulfur-in-fuel restrictions of Special Condition II.1.

The observed stack construction for each engine appeared to meet the requirements of **Special Conditions VIII. 1 through 3.**

SUMMARY

Equipment was observed to be in very good shape and no other pieces of equipment requiring permitting were identified. The facility appears to be poised to comply with the requirements of PTI No. 91-16, when finalized. As discussed with Ms. Koehler via telephone on September 23, 2016, the facility will maintain easily accessed records of oil specifications and oil quality received.

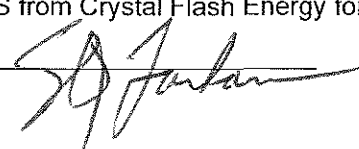
With the proper application for permitting this equipment, non-resettable hour meters in place, records of engine operation and use of ULSD, SLachance considers the facility to be compliant with applicable air use rules, regulations and requirements.

As discussed during the meeting, SLachance will ADD the facility to the list of reporting sites in Michigan's Air Emissions Reporting System (MAERS) for EI2016.

Attached:

A- MSDS from Crystal Flash Energy for ULSD

NAME



DATE

9/23/16

SUPERVISOR

