STATEMENT OF BASIS
Air Pollution Control
Title V Permit to Operate
Permit No.: V-ML-2711500031-2010-01

The purpose of this document is to set forth the legal and factual basis for permit conditions, including references to applicable statutory or regulatory provisions. This document also gives the derivation of conditions as required by 40 C.F.R. §71.11(b).

1.0 GENERAL INFORMATION

(A). Applicant and Stationary Source Information

Owner	Facility (SIC Codes: 7011, 4911)
Mille Lacs Band Corporate Commission 777 Lady Luck Drive Hinckley, MN 55037	Grand Casino Hinckley 777 Lady Luck Drive Hinckley, MN 55037

(B). Contact Information

Company Contact and Responsible Official:
Jim Lincoln, VP of Facilities
Grand Casino Hinckley
Phone: (320) 384-4907

Tribal Contacts:
Scott Hansen, Environmental Manager
Department of Natural Resources & Environment
Mille Lacs Band of Ojibwe
43408 Oodena Drive
Onamia, Minnesota 56359
Phone: (320) 532-7445

Charles J Lippert, Air Quality Technician
Department of Natural Resources & Environment
Mille Lacs Band of Ojibwe
Phone: (320) 532-4704

(C). Facility Description

The Mille Lacs Band Corporate Commission dba/Grand Casino

Hinckley installed and operates three internal combustion engines at the Grand Casino Hinckley at 777 Lady Luck Drive, Hinckley, Minnesota 55037. The engines are located on land that is held in trust for the Mille Lacs Band of Ojibwe. The location of the facility housing the engines is approximately one and one half mile east of I-35, south of Highway 48 in Pine County, Minnesota. The engines are used for peak load management and backup power for Grand Casino Hinckley.

The project is major for the Prevention of Deterioration (PSD) permitting for its nitrogen oxide (NO_x) emissions, and was issued an Air Quality Construction Permit (No. PSD-ML-R50005-03-01) by the United States Environmental Protection Agency (EPA) on November 10, 2002.

(D). Area Classification

The location of the source is in attainment for all criteria pollutants. Since the facility is located in Indian Country, the EPA is primarily responsible for issuing and enforcing any air quality permits for the source until such time that the Mille Lacs Band of Ojibwe Indian Reservation has EPA approval to do so.

(E). Enforcement Issues

The EPA is not aware of any pending enforcement issues at this facility.

2.0 PROCESS DESCRIPTION

(A). Summary

The three engines are Caterpillar Model 3516B turbocharged engines. The Caterpillar 3516B engines each have 16 cylinders. Each engine operates at a rated speed of 1,800 revolutions per minute and produces shaft power of 2,593 brake horsepower. Each engine burns approximately 130.2 gallons per hour of low sulfur (0.05%) diesel fuel when operated at capacity. The shaft power of each engine drives a 1,825 kW generator to produce electricity.

Emission Unit	Description	Manufacturer/ Model	Serial No.	Date Installed

EU 001	1,825 kW generator set	Caterpillar/ 3516B	OFDNN00430	December 4, 2004
EU 002	1,825 kW generator set	Caterpillar/ 3516B	OFDNN00427	December 4, 2004
EU 003	1,825 kW generator set	Caterpillar/ 3516B	OFDNN00431	December 4, 2004

(B). <u>Insignificant Activities</u>

The applicant has claimed the following activities to be insignificant under 40 C.F.R. 71.5(c)(11)(ii)(A):

Qty.	Activity
2	Building Heating Unit, natural gas fired, rated heat input 4.5 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 2.1 MMBTu/hr
2	Building Heating Unit, natural gas fired, rated heat input 2.5 MMBTu/hr
2	Building Heating Unit, natural gas fired, rated heat input 0.4 MMBTu/hr
5	Building Heating Unit, natural gas fired, rated heat input 0.245 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 0.1 MMBTu/hr
1	Building Heating Units, natural gas fired, rated heat input 0.205 MMBTu/hr
5	Building Heating Unit, natural gas fired, rated heat input 0.7 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 0.455 MMBTu/hr
2	Building Heating Unit, natural gas fired, rated heat input 0.125 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 0.27 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 0.999 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 1.1 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 2.03 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 0.425 MMBTu/hr
1	Building Heating Unit, natural gas fired, rated heat input 0.375 MMBTu/hr

1	Building Heating Unit, natural gas fired, rated heat input 0.07 MMBTu/hr
41	Building Heating Unit, natural gas fired, rated heat input 0.085 MMBTu/hr
2	Water Heating Unit, natural gas fired, rated heat input 1.625 MMBTu/hr
5	Water Heating Unit, natural gas fired, rated heat input 0.264 MMBTu/hr
1	Water Heating Unit, natural gas fired, rated heat input 0.4 MMBTu/hr
5	Water Heating Unit, natural gas fired, rated heat input 0.3 MMBTu/hr
1	Water Heating Unit, natural gas fired, rated heat input 0.399 MMBTu/hr
1	Water Heating Unit, natural gas fired, rated heat input 0.775 MMBTu/hr
1	Water Heating Unit, natural gas fired, rated heat input 0.35 MMBTu/hr
4	Water Heating Unit, natural gas fired, rated heat input 0.36 MMBTu/hr
3	Water Heating Unit, natural gas fired, rated heat input 0.165 MMBTu/hr
1	Water Heating Unit, natural gas fired, rated heat input 0.305 MMBTu/hr
1	Water Heating Unit, natural gas fired, rated heat input 0.075 MMBTu/hr
1	Emergency Generator, 960 hp, used for life safety purposes only, run 1 hr/month for maintenance/testing
1	Emergency Generator, 535 hp, used for life safety purposes only, run 1 hr/month for maintenance/testing

(C). <u>Potential Emissions</u>

Potential Emission Rates	VOC	NO_x	CO	PM	PM_{10}	SO_2	HAPs
Potential hourly emissions per engine (lb/hr)	1.16	37.44	3.05	0.87	0.72	0.91	0.025
Potential hourly emissions 3 engines (lb/hr)	3.48	112.32	9.15	2.61	2.16	2.73	0.075
Total potential emissions 3 engines (tpy)	15.24	491.96	40.08	11.43	9.46	11.98	0.329
800 hours per year Limited potential emissions 3 engines (tpy)	1.38	44.94	3.66	1.05	0.87	1.09	0.03

(D). <u>Projected Emissions</u>

Projected Emission Rates	VOC	NO_x	CO	PM	PM_{10}	SO_2	HAPs
Total projected emissions (tpy)	0.52	15.04	1.39	0.39	0.32	0.42	0.0123

Emissions for NOx, VOC (as hydrocarbons), PM and CO were based on emission factors provided by Ziegler for a Caterpillar 3516B engine, based on 100% load.

PM-10 emissions were calculated based on the PM/PM-10 ratio provided in AP-42, Table 3.4-2, multiplied by the emission factor for PM provided by the engine manufacturer.

SO2(tpy)=130.2 gal/hr * 7 lb/gal * 0.05 part S/100 part fuel * lbmol S/32 lb S * 64 lb SO2/lbmol SO2 * ton/2000 lb * 8760 hr/year

HAPs emissions were calculated using emission factors from AP-42, Table 3.4-3 and Table 3.4-4.

Actual emissions were based on estimated operating hours in 2005 (254 hours for each engine).

3.0. APPLICABLE REGULATIONS

The EPA issued the facility a PSD Permit (No. PSD-ML-R50005-03-01) on November 10, 2002. In accordance with 40 C.F.R. §71.6(a)(1), the applicable PSD permit terms were included in the permit with the following exceptions:

- The Notification of Construction and Startup requirements applied only upon construction and initial startup, and are therefore obsolete and have not been included in the permit.
- EPA modified the source's construction permit on December 30, 2010 to reflect a revised schedule for performance testing, and explained the rationale for the modification in the statement of basis to the modified permit. The revised schedule is included in the Title V permit at section 3.0(d).
- At 3.0(k), "Representative Testing Conditions," EPA is adding clarification that the performance testing should be conducted outside of periods of startup, shutdown, or malfunction.

- At 3.0(l), “Operating Conditions for Performance Testing,” EPA is adding clarification that “worst case operating conditions” means operation at maximum capacity during non-malfunction.

On March 3, 2010, EPA finalized amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines. (75 FR 9674). The amendments include new requirements for existing stationary compression ignition engines at area sources, which means that they apply to Grand Casino Hinckley. The final Title V permit includes applicable requirements from the NESHAP.