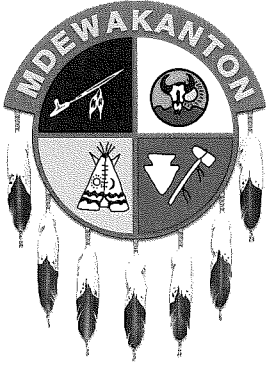


US EPA ARCHIVE DOCUMENT

DEC 22 2014



Shakopee Mdewakanton Sioux Community

2330 SIOUX TRAIL NW • PRIOR LAKE, MINNESOTA 55372
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Secretary/Treasurer

18 December 2014

Air Permits Section
Air Programs Branch (AR-18J)
EPA, Region 5
77 West Jackson Blvd
Chicago, Illinois 60604

Re: Administrative Permit Revision Request at Mystic Lake Casino Hotel

To whom it may concern:

This letter requests administrative permit revisions to be made for permit numbers SYN-SM-27139R0001-2012-01 and MIN-SM-27139R0001-2013-02. These permits are issued to the Shakopee Mdewakanton Sioux Community (SMSC) for its Mystic Lake Casino Hotel.


The requested revisions are "permit reopenings that do not increase emissions limitations in the permit" (40 CFR § 49.159(e)). These are described as administrative permit revisions, and are "not subject to the permit application, issuance, public participation, or administrative and judicial review requirements of this program" (40 CFR § 49.159(f)).

We request that both permits define alternative emissions calculations in the event that a fuel meter fails. We propose language that aligns with permit no. MIN-SM-27139R0004-2013-01.

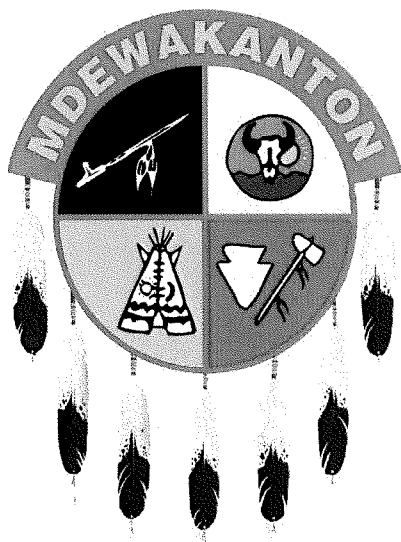
For permit number SYN-SM-27139R0001-2012-01 we request the removal of emissions test method CTM-034. This method has involved significant delays during every annual test period, and consequently, it is not a condition of the three more recently-issued construction permits. All SMSC construction permits will still include periodic Method 7E performance tests.

If you have any questions or require any additional information, please feel free to contact me.

Sincerely,


Simeon Matthews
Industrial Hygienist

Enc: Administrative Permit Revision at Mystic Lake Casino Hotel



Administrative Permit Revision at Mystic Lake Casino Hotel

**Prepared for Shakopee
Mdewakanton Sioux
Community**

Mulloy Environmental Services

Administrative Permit Revision at Mystic Lake Casino Hotel

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1 Introduction

The Shakopee Mdewakanton Sioux Community (the SMSC) owns and operates the Mystic Lake Casino Hotel (MLCH) located at 2400 Mystic Lake Boulevard, Prior Lake, Minnesota. The SMSC also owns and operates the Dakota! Sport & Fitness facility referenced herein. The SMSC is a federally recognized Indian tribe formally organized under federal reservation status in 1969. Since 1969, SMSC has operated several successful enterprises and community organizations and a tribal government, including a fire department and a public works department. The SMSC currently owns more than 4,100 acres of land in Prior Lake and Shakopee, Minnesota in fee or U.S. trust title. Tribal lands are located in Prior Lake and Shakopee, Minnesota.

The SMSC operates 11 diesel generators fueled by ultra-low sulfur #2 fuel oil to provide emergency power, backup power and peak load management at MLCH. The EPA has issued two construction permits to MLCH: Permit No. SYN-SM-27139R0001-2012-01, a construction permit with synthetic minor limits, to permit emission units EU 116, EU 117 and EU 118 on April 9, 2012 and Permit No. MIN-SM-27139R0001-2013-02, an after-the-fact construction permit with synthetic minor limits, to permit EU 103, EU 104, EU 109, EU 110, EU 111, EU 113, EU 114, EU 115.

We are requesting administrative permit revisions to both MLCH construction permits, summarized as follows:

- I. Permit No. SYN-SM-27139R0001-2012-01
 - a. Define emissions calculations using runtime hours, in the event that a fuel meter fails.
 - b. Remove annual testing and its applicable test method (ctm-034)
- II. Permit No. MIN-SM-27139R0001-2013-02
 - a. Define emissions calculations using runtime hours, in the event that a fuel meter fails.

On September 16, 2014 the second period of annual emissions testing was completed. The test method (ctm-034) presented unique complications in both 2013 and 2014, as described in this application, and it was not required by the SMSC's three more recently issued construction permits.

On October 31, 2014 the fuel meter on EU 110 at MLCH failed. It was replaced on November 21, 2014. EU 110 also has a runtime hour meter, which the SMSC used to track NO_x emissions when the meter failure was discovered.

2 Proposed Permit Amendments

The Monthly NO_x emissions formulas defined below are excerpted from Permit No. MIN-SM-27139R0004-2013-01, issued to Dakota! Sport & Fitness on July 23, 2014, providing conditions for the use of runtime hour data in the event of fuel meter failure.

2.1 Amendments to Permit No. SYN-SM-27139R0001-2012-01

For Permit No. SYN-SM-27139R0001-2012-01, add the following language to Section 2.0 Unit-Specific Requirements, Subsection B. Monitoring and Testing, Paragraph 1 Monitoring (page 3):

- i. EU 116, EU 117 and EU 118 shall each be equipped with a fuel meter and a runtime hour meter.

ii. If a fuel meter fails on any individual generator, the Permittee shall calculate NOx emissions using runtime hour data and the NOx emission factor determined from the most recent performance test as required by Condition 2.0 (B)(2) of this permit.

iii. Monthly NOx emissions shall be calculated using the following equation:

$$\text{NOx} = F \times \text{EF}_{\text{gal}} / 2000$$

Where: NOx is the monthly NOx emissions, in tons;

F is the engine's monthly MMBtu generated, calculated by (137,000 btu/gal x gal burned)/1,000,000, in MMBtu;

EF_{gal} is the NOx emission factor, in pounds/MMbtu.

iv. If a fuel meter fails on any individual generator, monthly NOx emissions shall be calculated using the following equation:

$$\text{NOx} = H \times \text{EF}_{\text{hour}} / 2000$$

Where: NOx is the monthly NOx emissions, in tons;

H is the engine's monthly operating hours, in hours;

EF_{hour} is the NOx emission factor, in pounds/hour.

Using the formula cited above in paragraph iv., runtime hour monitoring assumes that the engine is running at its maximum gallons-per-hour fuel consumption and therefore overestimates NOx emissions. This is more conservative than the permit's primary means of calculating emissions (paragraph iii. above), which is based on actual gallons of fuel consumed. Using the alternative formula in paragraph iv. above to calculate emissions does not allow for an increase in actual or potential emissions by the facility.

For this permit, under Section 2.0 (B)(2), delete subparagraph viii. Annual Testing (page 5):

viii. Annual Testing. The Permittee shall measure NOx emissions from each emissions unit annually (on or before the anniversary of the initial compliance test) using a portable emissions analyzer to determine compliance with the applicable emissions limits, and shall furnish the EPA with a written report of the results of such measurements no later than 45 days after each test is completed. The portable emissions analyzer shall be used according to the Portable Electrochemical Analyzer Procedure (See <http://www.epa.gov/ttn/emc/ctm/ctm-034.pdf>). This requirement does not apply to any unit during the calendar year in which a performance test is required for that unit, only during years between the periodic performance tests.

For this Permit, also delete the following from Section 2(C)(2) Reporting (page 6):

Test Reports. Within 45 days after completion of a set of annual NOx emission measurements under Section 2(B)(2)(viii), above, the Permittee shall submit a copy of the results to the EPA.

Section 3(B)(2) will remain in the permit, which states: "Within 45 days after completion of a performance test, the Permittee shall submit a copy of the results to EPA."

Initially draft copies of Permit No. MIN-SM-27139R0001-2013-02 issued to MLCH, Permit No. MIN-SM-27139R0004-2013-01 issued to Dakota! Sport and Fitness and Permit No. MIN-SM-27139R0005-2013-01 issued to the New Little Six Casino included the same Annual Testing requirement excerpted above. On an October 23, 2013 phone call between Michael Langman and SMSC's consultant, Pat Mulloy, Pat relayed information that testing with the portable analyzer was not feasible because in order to conduct testing at 100% load, a load bank must be rented. Renting such equipment could cost upwards of \$12,000/day. This equipment is required because the generators are unable to dissipate the energy to the power grid. Although other facilities may use this annual test method, these facilities may be connected to a grid or otherwise not require the rental of a load bank each year.

During the call Pat also identified several other facilities that have similar emission and operating requirements on their engines. These facilities tend to require only periodic performance testing and no annual testing. The annual test method (ctm-034) has been conducted in accordance with Permit No. SYN-SM-27139R0001-2012-01 in 2013 and 2014, and both test periods experienced complications unique to this testing. Software malfunctions in 2013 delayed the test and required technicians to record emissions concentrations at 15-second intervals by hand. Issues with the test's special-order calibration gas delayed the 2014 test by several days. No such issue has been experienced during the Method 7E performance tests required in Section 2.0(B)(2)(i through vii and subparagraph ix) of Permit No. SYN-SM-27139R0001-2012-01.

Finally, Pat mentioned that the facility currently contracts with an outside company to do biannual maintenance on the engines. He also mentioned that the engines are tested twice a month for roughly an hour each time. Pat stated that regular maintenance ensures that the engines are operating properly, thereby preventing unnecessary excess emissions from the engines. Michael Langman documented the phone call in an October 23, 2013 email to Pat with copies sent to Stan Ellison, Danny Markus, Jennifer Darrow, and Genevieve Damico.

Ultimately, all three permits were issued without an annual testing requirement nor any reference to test method ctm-034. All three permits do require performance tests using Method 7E of 40 C.F.R. Part 60, Appendix A, and we wish those test requirements to remain in Permit No SYN-SM-27139R0001-2012-01 as well.

2.2 Amendments to Permit No. MIN-SM-27139R0001-2013-02

For Permit No. MIN-SM-27139R0001-2013-02 add the following language to Section 2.0 Unit-Specific Requirements Subsection B. Monitoring and Testing, Paragraph 1. Monitoring (page 11):

- v. If a fuel meter fails on any individual generator, monthly NO_x emissions shall be calculated using the following equation:

$$\text{NO}_x = H \times \text{EF}_{\text{hour}} / 2000$$

Where: NO_x is the monthly NO_x emissions, in tons;

H is the engine's monthly operating hours, in hours;

EF_{hour} is the NO_x emission factor, in pounds/hour.

For this permit, renumber subparagraphs v. through vii. in Section 2.0 Unit-Specific Requirements Subsection B. Monitoring and Testing, Paragraph 1. Monitoring (page 11) as follows:

vi. The Permittee shall prepare and submit to EPA for approval an Operations and Maintenance Manual. [40 C.F.R. § 49.155(a)(3)]

vii. The Permittee shall operate and maintain EU 103, 104, 109, 110, 111, 113, 114 and 115 in accordance with the submitted Operations and Maintenance Manual. [40 C.F.R. § 49.155(a)(3)]

viii. The Permittee shall conduct monthly, annual and triennial maintenance and inspection activities in accordance with the manual. The Permittee shall perform necessary follow-up to ensure each emission unit is maintained appropriately, including but not limited to filter replacement, leak repair, and oil and fluid changes, etc. [40 C.F.R. § 49.155(a)(3)]

The justification for these changes is the same as provided herein for Permit No. SYN-SM-27139R0001-2012-01. In the event of a fuel meter failure, using the hour meter to calculate emissions ensures continued compliance with permit limits. It does not allow an increase in actual or potential emissions at the facility.

3 Administrative Context

The permits changes requested herein are not modifications. 40 CFR § 49.152 states that “Modification means any physical or operational change that would cause an increase in the allowable emissions of a minor source or an increase in the actual emissions (based on the applicable test under the major NSR program) of a major source for any regulated NSR pollutant or that would cause the emission of any regulated NSR pollutant not previously emitted.” Since the requested changes do not cause an increase in allowable emissions, nor actual emissions, nor the emission of an additional regulated NSR pollutant, we conclude that none of the requested changes constitute a modification. Rather, we anticipate all changes to be accomplished as “permit reopenings that do not increase emissions limitations in the permit” (40 CFR § 49.159(e)).

40 CFR § 49.159(f) describes permit reopenings of this nature as administrative permit revisions, which “is not subject to the permit application, issuance, public participation, or administrative and judicial review requirements of this program.” (40 CFR § 49.159(f)(2)).

By removing the annual test requirement, Permit No. SYN-SM-27139R0001-2012-01 will be better aligned with all other construction permits issued to SMSC; these do not require annual testing or the alternative test method ctm-034, but they do require periodic performance tests (Method 7E). Permit No. SYN-SM-27139R0001-2012-01 will retain its requirement for periodic performance tests as well, ensuring continued compliance with permit limits.

Inserting the runtime-hour emissions formula into both MLCH construction permits SYN-SM-27139R0001-2012-01 and MIN-SM-27139R0001-2013-02 will even further align them with SMSC’s other construction permits and define backup monitoring in case of fuel meter failure. Using this formula to calculate emissions does not allow for an increase in actual or potential emissions by the facility.

Because 40 CFR Part 49 does not outline procedures for administrative permit revisions, we assume that they will follow the procedures outlined in 40 CFR § 71.7 (d)(3):

“(3) *Administrative permit amendment procedures.* An administrative permit amendment may be made by the permitting authority consistent with the following:

(i) The permitting authority shall take no more than 60 days from receipt of a request for an administrative permit amendment to take final action on such request, and may incorporate such changes without providing notice to the public or affected States provided that it designates any such permit revisions as having been made pursuant to this paragraph.

(ii) The permitting authority shall submit a copy of the revised permit to the Administrator in the case of a program delegated pursuant to §71.10.

(iii) The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.”

In accordance with 40 CFR § 49.159(f)(2) and in consideration of 40 CFR §71.7 (d)(3)(iii), the SMSC has implemented the operational changes requested in this administrative permit revision request.

To assist in these administrative revisions, the SMSC is providing the following forms:

EPA Form 5900-02 Certification of Truth, Accuracy and Completeness

EPA Form 5900-79 General Information and Summary



Federal Operating Permit Program (40 CFR Part 71)

CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

A. Responsible Official

Name: (Last) Vig (First) Charlie (MI)

Title Tribal Chairman

Street or P.O. Box 2330 Sioux Trail NW

City Prior Lake State MN ZIP 55372 -

Telephone (952) 496 - 6109 Ext. Facsimile () -

B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed) *Charlie Vig*

Name (typed) Charlie Vig Date: 12 / 17 / 2014



United States
Environmental Protection
Agency

OMB No. 2060-0336, Approval Expires 06/30/2015

Federal Operating Permit Program (40 CFR Part 71)

GENERAL INFORMATION AND SUMMARY (GIS)

A. Mailing Address and Contact Information

Facility name Shakopee Mdewakanton Sioux Community

Mailing address: Street or P.O. Box 2330 Sioux Trail NW

City Prior Lake State MN ZIP 55372

Contact person: Stanley Ellison Title Director of Land and Natural Resources

Telephone (952) 496- 6158 Ext. _____

Facsimile (952) 445 - 8906

B. Facility Location

Temporary source? ___ Yes X No Plant site location Mystic Lake Casino Hotel

2400 Mystic Lake Boulevard

City Prior Lake State MN County Scott EPA Region V

Is the facility located within:

Indian lands? X YES ___ NO OCS waters? ___ YES X NO

Non-attainment area? ___ YES X NO If yes, for what air pollutants? _____

Within 50 miles of affected State? X YES ___ NO If yes, What State(s)? MN, WI

C. Owner

Name Shakopee Mdewakanton Sioux Community Street/P.O. Box 2330 Sioux Trail NW

City Prior Lake State MN ZIP 55372 - _____

Telephone (____) _____ - _____ Ext _____

D. Operator

SAME AS OWNER

Name _____ Street/P.O. Box _____

City _____ State _____ ZIP _____ - _____

Telephone (____) _____ - _____ Ext _____

E. Application Type

Mark only one permit application type and answer the supplementary question appropriate for the type marked.

☐ Initial Permit ☐ Renewal ☐ Significant Mod ☐ Minor Permit Mod(MPM)

☐ Group Processing, MPM ☒ Administrative Amendment

For initial permits, when did operations commence? ____/____/____

For permit renewal, what is the expiration date of current permit? ____/____/____

F. Applicable Requirement Summary

Mark all types of applicable requirements that apply.

☐ SIP ☐ FIP/TIP ☐ PSD ☐ Non-attainment NSR

☒ Minor source NSR ☐ Section 111 ☐ Phase I acid rain ☐ Phase II acid rain

☐ Stratospheric ozone ☐ OCS regulations ☐ NESHAP ☐ Sec. 112(d) MACT

☐ Sec. 112(g) MACT ☐ Early reduction of HAP ☐ Sec 112(j) MACT ☐ RMP [Sec.112(r)]

☐ Tank Vessel requirements, sec. 183(f) ☐ Section 129 Standards/Requirement

☐ Consumer / comm.. products, ' 183(e) ☐ NAAQS, increments or visibility (temp. sources)

Has a risk management plan been registered? ☐ YES ☒ NO Regulatory agency _____

Phase II acid rain application submitted? ☐ YES ☒ NO If yes, Permitting authority _____

G. Source-Wide PTE Restrictions and Generic Applicable Requirements

Cite and describe any emissions-limiting requirements and/or facility-wide "generic" applicable requirements.

None

H. Process Description

List processes, products, and SIC codes for the facility.

Process	Products	SIC
Mystic Lake Casino Hotel	Amusement and Recreation services, Hotels and Motels, Electricity Generation	7999, 7011, 4911

I. Emission Unit Identification

Assign an emissions unit ID and describe each emissions unit at the facility. Control equipment and/or alternative operating scenarios associated with emissions units should be listed on a separate line. Applicants may exclude from this list any insignificant emissions units or activities.

Emissions Unit ID	Description of Unit
103	3,196 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
104	2,990 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
109	2,288 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
110	1,825 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
111	2,885 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
113	2,990 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
114	2,990 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
115	2,990 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
116	2,990 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
117	2,990 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management
118	2,990 hp Diesel Generator (#2 Fuel Oil) to provide emergency power, backup power and peak load management

J. Facility Emissions Summary

Enter potential to emit (PTE) for the facility as a whole for each air pollutant listed below. Enter the name of the single HAP emitted in the greatest amount and its PTE. For all pollutants stipulations to major source status may be indicated by entering "major" in the space for PTE. Indicate the total actual emissions for fee purposes for the facility in the space provided. Applications for permit modifications need not include actual emissions information.

NOx 2,140.8 tons/yr VOC 50.7 tons/yr SO2 1.7 tons/yr
PM-10 23.8 tons/yr CO 232.3 tons/yr Lead 0 tons/yr
Total HAP 1.4 tons/yr
Single HAP emitted in the greatest amount Benzene PTE 0.7 tons/yr
Total of regulated pollutants (for fee calculation), Sec. F, line 5 of form FEE NA tons/yr

K. Existing Federally-Enforceable Permits

Permit number(s) SYN-SM-27139R0001-2012-01 Permit type Construction Permit with Synthetic Minor Limits Permitting authority U.S. EPA Region 5 Air and Radiation Branch

Permit number(s) MIN-SM-27139R0001-2013-02 Permit type Construction Permit with Synthetic Minor Limits Permitting authority U.S. EPA Region 5 Air and Radiation Branch

L. Emission Unit(s) Covered by General Permits

Emission unit(s) subject to general permit NA
Check one: ☐ Application made ☐ Coverage granted
General permit identifier _____ Expiration Date / /

M. Cross-referenced Information

Does this application cross-reference information? ☐ YES ☒ NO (If yes, see instructions)