United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 04/30/2012

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) X Charlie Vig

Name (typed) Charlie Vig Date: 10 / 8 / 2014

OCT 1 4 2014

United States Environmental Protection Agency Program Address Phone Fax Web address	Genevieve Damico, Chief, Air Permits Section U.S. Environmental Protection Agency, Region 5 77 West Jackson Blvd (AR-18J) Chicago, IL 60604 phone: (312) 353-4761 fax: (312) 385-5501 email: damico.genevieve@epa.gov

FEDERAL MINOR NEW SOURCE REVIEW PROGRAM IN INDIAN COUNTRY

Application for New Construction
(Form NEW)

Please check all that apply to show how you are using this form:

Proposed Construction of a New Source
Proposed Construction of New Equipment at an Existing Source
X Proposed Modification of an Existing Source
Other – Please Explain

Please submit information to:
Genevieve Damico, Chief, Air Permits Section
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd (AR-18J)
Chicago, IL 60604
Phone: (312) 353-4761

A. GENERAL SOURCE INFORMATION

1. (a) **Company Name** Shakopee Mdewakanton Sioux Community (b) **Operator Name** Shakopee Mdewakanton Sioux Community		2. **Source Name** Dakotah! Sport and Fitness	
3. Type of Operation Amusement and Recreation Services, Fitness and Recreational Sports Centers, Electricity		4. Portable Source? Yes No X 5. Temporary Source? Yes No X	
6. NAICS Code 71394, 62131, 62134		7. SIC Code 7991, 8041, 8049	
8. Physical Address (home base for portable sources) Dakota Sport and Fitness 2100 Trail of Dreams, Prior Lake, MN, 55372			
9. Reservation*Shakopee Mdewakanton Sioux Community	10. County* See Below	11a. Latitude* See Below	11b. Longitude* See Below
12a. Quarter Quarter Section* See Below	12b. Section* See Below	12c. Township* See Below	12d. Range* See Below

*Provide all proposed locations of operation for portable sources

EPA Form No. 5900-248

Generator and Stack Location Coordinates

Generator /Stack	Latitude	Longitude	Latitude	Longitude	UTM Coordinates E	UTM Coordinates N	Township and Range Quarter/Quarter
EU 204	44.724992	-93.47819	44°43.49953'	-093°28.69138'	15T 462131.48mE	4952512.46mN	MN Fifth T115N R22W S33

B. PREVIOUS PERMIT ACTIONS (Provide information in this format for each permit that has been issued to this source. Provide as an attachment if additional space is necessary)

Source Name on the Permit **Shakopee Mdewakanton Sioux Community of Minnesota**
Permit Number **MIN-SM-27139R004-2013-01**
Date of the Permit Action **23 Jun 2014**

Source Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Source Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Source Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Source Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

C. CONTACT INFORMATION

Company Contact Stanley Ellison	Title Director of Land and Natural Resources
Mailing Address Shakopee Mdewakanton Sioux Community , 2330 Sioux Trail NW, Prior Lake, MN, 55372	
Email Address stan.ellison@shakopeedakota.org	
Telephone Number (952)496-6158	Facsimile Number (952) 445-8906
Operator Contact (if different from company contact) **SAME AS COMPANY CONTACT**	Title
Mailing Address	
Email Address	
Telephone Number	Facsimile Number
Source Contact SAME AS COMPANY CONTACT	Title
Mailing Address	
Email Address	
Telephone Number	Facsimile Number
Compliance Contact **SAME AS COMPANY CONTACT**	Title
Mailing Address	
Email Address	
Telephone Number	Facsimile Number

D. ATTACHMENTS

Include all of the following information (see the attached instructions)

FORM SYNMIN - New Source Review Synthetic Minor Limit Request Form, if synthetic minor limits are being requested.

Narrative description of the proposed production processes. This description should follow the flow of the process flow diagram to be submitted with this application.

Process flow chart identifying all proposed processing, combustion, handling, storage, and emission control equipment.

A list and descriptions of all proposed emission units and air pollution-generating activities.

Type and quantity of fuels, including sulfur content of fuels, proposed to be used on a daily, annual and maximum hourly basis.

Type and quantity of raw materials used or final product produced proposed to be used on a daily, annual and maximum hourly basis.

Proposed operating schedule, including number of hours per day, number of days per week and number of weeks per year.

A list and description of all proposed emission controls, control efficiencies, emission limits, and monitoring for each emission unit and air pollution generating activity.

Criteria Pollutant Emissions - Estimates of Current Actual Emissions, Current Allowable Emissions, Post-Change Uncontrolled Emissions, and Post-Change Allowable Emissions for the following air pollutants: particulate matter, PM_{10}, $PM_{2.5}$, sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compound (VOC), lead (Pb) and lead compounds, fluorides (gaseous and particulate), sulfuric acid mist (H_2SO_4), hydrogen sulfide (H_2S), total reduced sulfur (TRS) and reduced sulfur compounds, including all calculations for the estimates.

These estimates are to be made for each emission unit, emission generating activity, and the project/source in total.

Modeling – Air Quality Impact Analysis (AQIA)

ESA (Endangered Species Act)

NHPA (National Historic Preservation Act)

E. TABLE OF ESTIMATED EMISSIONS

The following tables provide the total emissions in tons/year for all pollutants from the calculations required in Section D of this form, as appropriate for the use specified at the top of the form.

E(i) – Proposed New Source

Pollutant	Potential Emissions (tpy)	Proposed Allowable Emissions (tpy)	
PM			PM - Particulate Matter PM_{10} - Particulate Matter less than 10 microns in size $PM_{2.5}$ - Particulate Matter less than 2.5 microns in size SOx - Sulfur Oxides NOx - Nitrogen Oxides CO - Carbon Monoxide VOC - Volatile Organic Compound Pb - Lead and lead compounds Fluorides - Gaseous and particulates H_2SO_4 - Sulfuric Acid Mist H_2S - Hydrogen Sulfide TRS - Total Reduced Sulfur RSC - Reduced Sulfur Compounds
PM_{10}			
$PM_{2.5}$			
SO_x			
NO_x			
CO			
VOC			
Pb			
Fluorides			
H_2SO_4			
H_2S			
TRS			
RSC			

Emissions calculations must include fugitive emissions if the source is one the following listed sources, pursuant to CAA Section 302(j):

(a) Coal cleaning plants (with thermal dryers);
(b) Kraft pulp mills;
(c) Portland cement plants;
(d) Primary zinc smelters;
(e) Iron and steel mills;
(f) Primary aluminum ore reduction plants;
(g) Primary copper smelters;
(h) Municipal incinerators capable of charging more than 250 tons of refuse per day;
(i) Hydrofluoric, sulfuric, or nitric acid plants;
(j) Petroleum refineries;
(k) Lime plants;
(l) Phosphate rock processing plants;
(m) Coke oven batteries;
(n) Sulfur recovery plants;
(o) Carbon black plants (furnace process);
(p) Primary lead smelters;
(q) Fuel conversion plants;
(r) Sintering plants;
(s) Secondary metal production plants;
(t) Chemical process plants
(u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
(v) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
(w) Taconite ore processing plants;
(x) Glass fiber processing plants;
(y) Charcoal production plants;
(z) Fossil fuel-fired steam electric plants of more that 250 million British thermal units per hour heat input, and
(aa) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.

E(ii) – Proposed New Construction at an Existing Source or Modification of an Existing Source
DSF EU 204 Emergency Generator

Pollutant	Current Actual Emissions (tpy)	Current Allowable Emissions (tpy)	Post-Change Potential Emissions (tpy)	Post-Change Allowable Emissions (tpy)
PM	0.00	0.29	0.30	0.30
PM_{10}	0.00	0.29	0.30	0.30
$PM_{2.5}$	0.00	0.29	0.30	0.30
SO_x	0.00	0.00	0.00	0.00
NO_x	0.05	9.40	11.48	11.48
CO	0.01	2.50	2.59	2.59
VOC	0.00	0.18	0.27	0.27
Pb	0.000	0.00	0.00	0.00
Fluorides	0.000	0.00	0.00	0.00
H_2SO_4	0.000	0.00	0.00	0.00
H_2S	0.000	0.00	0.00	0.00
TRS	0.000	0.00	0.00	0.00
RSC	0.00	0.00	0.00	0.00

PM - Particulate Matter
PM_{10} - Particulate Matter less than 10 microns in size $PM_{2.5}$ - Particulate Matter less than 2.5 microns in size SOx - Sulfur Oxides
NOx - Nitrogen Oxides
CO - Carbon Monoxide
VOC - Volatile Organic Compound Pb - Lead and lead compounds Fluorides - Gaseous and particulates
H_2SO_4 - Sulfuric Acid Mist
H_2S - Hydrogen Sulfide
TRS - Total Reduced Sulfur
RSC - Reduced Sulfur Compounds

[Disclaimers] The public reporting and recordkeeping burden for this collection of information is estimated to average 20 hours per response, unless a modeling analysis is required. If a modeling analysis is required, the public reporting and recordkeeping burden for this collection of information is estimated to average 60 hours per response .Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

FORM SYNMIN - New Source Review Synthetic Minor Limit Request Form, if synthetic minor limits are being requested.

Attached

Narrative description of the proposed production processes. This description should follow the flow of the process flow diagram to be submitted with this application.

EU 204 was installed in 1994 as an emergency generator. At the time of the application manufacturer emissions performance data for this generator were unavailable. SMSC used data from AP-42 Chapter 3 Section 4, Large Stationary Diesel and All Stationary Dual-Fuel Engines to estimate actual and potential emissions from EU 204 and to propose NOx emission limits for this emissions source. The Introduction to AP-42 discusses the uses of AP-42 data and states that:

> *Emission factors in AP-42 are neither EPA-recommended emission limits (e. g., best available control technology or BACT, or lowest achievable emission rate or LAER) nor standards (e. g., National Emission Standard for Hazardous Air Pollutants or NESHAP, or New Source Performance Standards or NSPS). Use of these factors as source-specific permit limits and/or as emission regulation compliance determinations is not recommended by EPA. Because emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the factor. As such, a permit limit using an AP-42 emission factor would result in half of the sources being in noncompliance.*

Tests conducted on September 23, 2014 indicated that EU 204 exceeded the emission rates and limits established based on AP-42 emission factors. This permit amendment adjusts the NOx limits to reflect the tests results which are more accurate and more appropriate than AP-42 factors. The worst case test data indicated a 39.01 lb./hr. NOx emission rate at a 92% load. The proposed new lb./hr. NOx limit adjusts the tested emission rate up to 100% load.

	Test Data	AP-42 /Spec	Proposed New Limit
MMBtu/hr	11.23	11.75	12.17
NOx lb/hr	39.01	37.59	45.93
NOx lb/MMBtu	3.48	3.20	3.77
Fuel Use (gal)	82.00	85.72	88.90
Fuel Use gph	82.00	85.72	88.90
kW	1153	1250	1250
Hp	1548	1678	1678
% load	92%		100%

SMSC estimated the MMBtu/hr rating for EU 204 in the current permit based on AP-42 Chapter 03, Section 03 Table 3.3-1 footnote c:

> *Assumes 99% conversion of carbon in fuel to CO_2 with 87 weight % carbon in diesel, 86 weight % carbon in gasoline, average BSFC of 7,000 Btu/hp-hr, diesel heating value of 19,300 Btu/lb, and gasoline heating value of 20,300 Btu/lb.*

MMBtu/hr = 1678 hp X 7000/1000000 = 11.75 MMBtu/hr

The test data indicated a higher MMBtu/hr rate (11.23 MMBTU/hr at 92% load) which adjusted to 100% load would be 12.17 MMBtu/hr.

SMSC estimated the existing fuel use limits using the same source:

GPH = 11.75 MMBtu/hr x 1000000/(19300 btu/lb ÷7.1 lbs/gallon) = 85.72 gph

Test data indicated EU 204 used 82 gallons per hour at 92% load. Adjusted to 100% load this becomes 88.90 gallons per hour. Based on the test data SMSC requests increasing the annual fuel limit from 42,859 gallons per year to 44,449 gallons per year.

The proposed changes increase lb/hr NOx limits from 37.59 lbs/hr to 45.93 lbs/hr, an 8.34 lb/hr increase. Based on test data, annual NOx emissions limits are increased from 9.40 tons per year to 11.48 tons per year (2.08 tons per year increase).

Proposed NOx Limits

Throughput				NOx	
Maximum		Actual 9/13 9/14	Limited	Max. Uncontrolled Emissions [1]	
(gal/hr)	(gal/yr)	(gal/yr)	(gal/yr)	lb/hr	tons/yr
88.90	778,751	186.0	44,449	45.93	11.48

Nitrogen Oxide (NOx) Limitations and Requirements:

1. EU 204
   a. Limit NO_X emissions to no greater than 45.93 pounds per hour expressed as NO_2, averaged over the duration of the emission performance test.
   b. Limit NO_X emissions to no greater than 11.48 tons per year expressed as NO_2, based on a 12 month rolling sum. Compliance with this limit shall be based on a rolling sum of monthly emissions during the previous 12 months.
   c. Limit fuel usage to ultra-low diesel fuel with a maximum sulfur content of 0.0015%.
   d. Limit fuel usage to 44,449 gallons per year, based on a 12 month rolling sum. Compliance with this limit shall be based on a rolling sum of monthly fuel usage (in gallons) during the previous 12 months.

Process flow chart identifying all proposed processing, combustion, handling, storage, and emission control equipment.

No change from current permit

A list and descriptions of all proposed emission units and air pollution-generating activities.

Source	EU	Location	Make	Model	Serial Number	Month/Yr Mfg.	Month/Yr Installed	Primary Fuel	Rated kW	Horse Power	MMBtu /hr
Diesel Generator	204	DSF	Energy Dynamics	8011250C	1DGN03437	Jul-94	Jul-94	Diesel	1250	1678	12.17

Type and quantity of fuels, including sulfur content of fuels, proposed to be used on a daily, annual and maximum hourly basis.

EU	(gal/hr)	Limited (gal/yr)	Actual 9/13 -9/14 (gal/yr)
204	88.90	44,449	186.0

Type and quantity of raw materials used or final product produced proposed to be used on a daily, annual and maximum hourly basis.

The relevant information is covered above, under fuels.

Proposed operating schedule, including number of hours per day, number of days per week and number of weeks per year.

The operating schedule is intermittent with the exception of the weekly maintenance schedule. Emergency operation is a random event. Load shed typically occurs during summer and winter peak periods and is intermittent, generally lasting a few hours and with 12 or more hours between events.

A list and description of all proposed emission controls, control efficiencies, emission limits, and monitoring for each emission unit and air pollution generating activity.

No change from existing permit.

Criteria Pollutant Emissions - Estimates of Current Actual Emissions, Current Allowable Emissions, Post- Change Uncontrolled Emissions, and Post-Change Allowable Emissions for the following air pollutants: particulate matter, PM_{10}, $PM_{2.5}$, sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compound (VOC), lead (Pb) and lead compounds, fluorides (gaseous and particulate), sulfuric acid mist (H_2SO_4), hydrogen sulfide (H_2S), total reduced sulfur (TRS) and reduced sulfur compounds, including all calculations for the estimates.

Criteria Pollutant Emissions

			Current		Post Change	
Source	EU Nos.	Pollutant	Actual Emissions	Allowable Emissions	Uncontrolled Emissions	Allowable Emissions
DSF	204	PM	0.00	0.29	0.30	0.30
DSF	204	PM_{10}	0.00	0.29	0.30	0.30
DSF	204	$PM_{2.5}$	0.00	0.29	0.30	0.30
DSF	204	SO_2	0.00	0.00	0.00	0.00
DSF	204	CO	0.05	9.40	11.48	11.48
DSF	204	NO_X	0.01	2.50	2.59	2.59
DSF	204	VOC	0.00	0.18	0.27	0.27
DSF	204	Pb	0.000	0.00	0.00	0.00
DSF	204	Fl	0.000	0.00	0.00	0.00
DSF	204	H_2SO_4	0.000	0.00	0.00	0.00
DSF	204	H_2S	0.000	0.00	0.00	0.00
DSF	204	TRS	0.000	0.00	0.00	0.00

Modeling – Air Quality Impact

No change from existing permit

Analysis (AQIA) ESA (Endangered Species Act)

No change from existing permit

NHPA (National Historic Preservation Act)

No change from existing permit

	United States Environmental Protection Agency **Program** **Address** **Phone** **Fax** **Web address**	Genevieve Damico, Chief, Air Permits Section U.S. Environmental Protection Agency, Region 5 77 West Jackson Blvd (AR-18J) Chicago, IL 60604 phone: (312) 353-4761 fax: (312) 385-5501 email: damico.genevieve@epa.gov

FEDERAL MINOR NEW SOURCE REVIEW PROGRAM IN INDIAN COUNTRY

Application For Synthetic Minor Limit

(Form SYNMIN)

Please submit information to:

Genevieve Damico, Chief, Air Permits Section
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd (AR-18J)
Chicago, IL 60604
Phone: (312) 353-4761

A. GENERAL INFORMATION

Company Name Shakopee Mdewakanton Sioux Community	**Source Name** Dakotah! Sport and Fitness	
Company Contact or Owner Name Stanley Ellison		Title Director of Land and Natural Resources
Mailing Address Shakopee Mdewakanton Sioux Community , 2330 Sioux Trail NW, Prior Lake, MN, 55372		
Email Address stan.ellison@shakopeedakota.org		
Telephone Number 952-496-6158	Facsimile Number (952) 445-8906	

B. ATTACHMENTS

For each criteria air pollutant, hazardous air pollutant and for all emission units and air pollutant-generating activities to be covered by a limitation, include the following:

Item 1 - The proposed limitation and a description of its effect on current actual, allowable and the potential to emit.

Item 2 - The proposed testing, monitoring, recordkeeping, and reporting requirements to be used to demonstrate and assure compliance with the proposed limitation.

Item 3 - A description of estimated efficiency of air pollution control equipment under present or anticipated operating conditions, including documentation of the manufacturer specifications and guarantees.

Item 4 - Estimates of the Post-Change Allowable Emissions that would result from compliance with the proposed limitation, including all calculations for the estimates.

Item 5 – Estimates of the potential emissions of Greenhouse Gas (GHG) pollutants:

Attachments to Form SYNMIN

Item 1 - The proposed limitation and a description of its effect on current actual, allowable and the potential to emit.

EU 204 was installed in 1994 as an emergency generator. At the time of the application manufacturer emissions performance data for this generator were unavailable. SMSC used data from AP-42 Chapter 3 Section 4, Large Stationary Diesel and All Stationary Dual-Fuel Engines to estimate actual and potential emissions from EU 204 and to propose NOx emission limits for this emissions source. The Introduction to AP-42 discusses the uses of AP-42 data and states that:

> *Emission factors in AP-42 are neither EPA-recommended emission limits (e. g., best available control technology or BACT, or lowest achievable emission rate or LAER) nor standards (e. g., National Emission Standard for Hazardous Air Pollutants or NESHAP, or New Source Performance Standards or NSPS). Use of these factors as source-specific permit limits and/or as emission regulation compliance determinations is not recommended by EPA. Because emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the factor. As such, a permit limit using an AP-42 emission factor would result in half of the sources being in noncompliance.*

Tests conducted on September 23, 2014 indicated that EU 204 exceeded the emission rates and limits established based on AP-42 emission factors. This permit amendment adjusts the NOx limits to reflect the tests results which are more accurate and more appropriate than AP-42 factors. The worst case test data indicated a 39.01 lb./hr. NOx emission rate at a 92% load. The proposed new lb./hr. NOx limit adjusts the tested emission rate up to 100% load.

	Test Data	AP-42 /Spec	Proposed New Limit
MMBtu/hr	11.23	11.75	12.17
NOx lb/hr	39.01	37.59	45.93
NOx lb/MMBtu	3.48	3.20	3.77
Fuel Use (gal)	82.00	85.72	88.90
Fuel Use gph	82.00	85.72	88.90
kW	1153	1250	1250
Hp	1548	1678	1678
% load	92%		100%

SMSC estimated the MMBtu/hr rating for EU 204 in the current permit based on AP-42 Chapter 03, Section 03 Table 3.3-1 footnote c:

> *Assumes 99% conversion of carbon in fuel to CO_2 with 87 weight % carbon in diesel, 86 weight % carbon in gasoline, average BSFC of 7,000 Btu/hp-hr, diesel heating value of 19,300 Btu/lb, and gasoline heating value of 20,300 Btu/lb.*

MMBtu/hr = 1678 hp X 7000/1000000 = 11.75 MMBtu/hr

The test data indicated a higher MMBtu/hr rate (11.23 MMBTU/hr at 92% load) which adjusted to 100% load would be 12.17 MMBtu/hr.

SMSC estimated the existing fuel use limits using the same source:

GPH = 11.75 MMBtu/hr x 1000000/(19300 btu/lb ÷7.1 lbs/gallon) = 85.72 gph

Test data indicated EU 204 used 82 gallons per hour at 92% load. Adjusted to 100% load this becomes 88.90 gallons per hour. Based on the test data SMSC requests increasing the annual fuel limit from 42,859 gallons per year to 44,449 gallons per year.

The proposed changes increase lb/hr NOx limits from 37.59 lbs/hr to 45.93 lbs/hr, an 8.34 lb/hr increase. Based on test data, annual NOx emissions limits are increased from 9.40 tons per year to 11.48 tons per year (2.08 tons per year increase).

Proposed NOx Limits

Throughput				NOx	
Maximum		Actual 9/13 9/14	Limited	Max. Uncontrolled Emissions [1]	
(gal/hr)	(gal/yr)	(gal/yr)	(gal/yr)	lb/hr	tons/yr
88.90	778,751	186.0	44,449	45.93	11.48

Nitrogen Oxide (NOx) Limitations and Requirements:

1. EU 204
    a. Limit NO_X emissions to no greater than 45.93 pounds per hour expressed as NO_2, averaged over the duration of the emission performance test.
    b. Limit NO_X emissions to no greater than 11.48 tons per year expressed as NO_2, based on a 12 month rolling sum. Compliance with this limit shall be based on a rolling sum of monthly emissions during the previous 12 months.
    c. Limit fuel usage to ultra low diesel fuel with a maximum sulfur content of 0.0015%.
    d. Limit fuel usage to 44,449 gallons per year, based on a 12 month rolling sum. Compliance with this limit shall be based on a rolling sum of monthly fuel usage (in gallons) during the previous 12 months.

Item 2 - The proposed testing, monitoring, recordkeeping, and reporting requirements to be used to demonstrate and assure compliance with the proposed limitation.

No change

Item 3 - A description of estimated efficiency of air pollution control equipment under present or anticipated operating conditions, including documentation of the manufacturer specifications and guarantees.

There is no control on EU 204. It is an emergency generator

Item 4 - Estimates of the Post-Change Allowable Emissions that would result from compliance with the proposed limitation, including all calculations for the estimates.

EU 204 is an emergency only generator and is permitted to operate 500 hours per year or less.

Proposed NOx Limits

Limited	Max. Controlled Emissions	
(gal/yr)	lb/hr	tons/yr
44,449	45.93	11.48

Item 5 – Estimates of the potential emissions of Greenhouse Gas (GHG) pollutants

	Current		Post Change	
	Actual Emissions	Allowable Emissions	Uncontrolled Emissions	Allowable Emissions
CO_2	2.10	484.52	502.21	502.21
CH_4	0.00	0.26	0.27	0.27
N_2O	0.00	0.00	0.00	0.00
Total CO_2e	2.13	491.27	509.21	509.21

Federal Operating Permit Program (40 CFR Part 71)

EMISSION CALCULATIONS (EMISS)

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

A. Emissions Unit ID EU 204

B. Identification and Quantification of Emissions

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
CO	0.01	10.35	2.59	
NOx	0.05	45.93	11.48	
PM	0.00	1.22	0.30	
PM10	0.00	1.22	0.30	
PM2.5	0.00	1.22	0.30	
SO2	0.00	0.02	0.00	
VOC	0.00	1.10	0.27	
CO2e	2.13	2036.83	509.21	
Highest Single HAP (Benzene)	0.00	0.01	0.04	
All HAPs	0.00	0.02	0.08	

EPA United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 04/30/2012

Federal Operating Permit Program (40 CFR Part 71)

EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

A. General Information

Emissions unit ID __EU 204_____ Description_DSF Emergency only generator_____

SIC Code (4-digit) _4911____ SCC Code_20300101

B. Emissions Unit Description

Primary use _Emergency backup power_ Temporary Source ___Yes _X_No

Manufacturer Energy Dynamics Model No. 8011250C

Serial Number __1DGN03437_____ Installation Date_07___/_01_/_94__

Boiler Type: ___ Industrial boiler ___ Process burner ___ Electric utility boiler

Other (describe) _____

Boiler horsepower rating_____ Boiler steam flow (lb/hr)_____

Type of Fuel-Burning Equipment (coal burning only):

___ Hand fired ___Spreader stoker ___Underfeed stoker ___Overfeed stoker

___ Traveling grate ___Shaking grate ___Pulverized, wet bed ___ Pulverized, dry bed

Actual Heat Input _____MM BTU/hr Max. Design Heat Input ___12.17___MM BTU/hr

C. Fuel Data

Primary fuel type(s)___Diesel_____ Standby fuel type(s)____none_____

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.0015	0	137,000 Btu/gal

D. Fuel Usage Rates

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	186 Gallons	88.9 gallons	44,449 gallons

E. Associated Air Pollution Control Equipment

Emissions unit ID NA Device type_____

Air pollutant(s) Controlled_____ Manufacturer_____

Model No._____ Serial No._____

Installation date_____/_____/_____ Control efficiency (%) _____

Efficiency estimation method_____

Ambient Impact Assessment

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) 9.92 Inside stack diameter (ft) 1.0

Stack temp(°F) 950.0 Design stack flow rate (ACFM) 12,000.0

Actual stack flow rate (ACFM) 12,000.0 Velocity (ft/sec) 254.65