

# **Treasure Island Resort and Casino Generation Facility**

## **Part 71 Operating Permit Renewal Application**

Submitted by: Energy Alternatives, Inc.

October 2008

Prepared by:  
JEM Environmental, LLC  
[jemenvironmental@mchsi.com](mailto:jemenvironmental@mchsi.com)

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) Kairis (First) Phillip (MI) \_\_\_\_\_

Title Vice President

Street or P.O. Box 17685 Juniper Path, Suite 301

City Lakeville State MN ZIP 55044 - \_\_\_\_\_

Telephone ( 651 ) 341 - 2244 Ext. \_\_\_\_\_ Facsimile ( 651 ) 460 - 6717

**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) 

Name (typed) Phillip Kairis Date: 10 / 3 / 08

Federal Operating Permit Program (40 CFR Part 71)

**GENERAL INFORMATION AND SUMMARY (GIS)**

**A. Mailing Address and Contact Information**

Facility name Treasure Island Resort and Casino Generation Facility

Mailing address: Street or P.O. Box Energy Alternatives, Inc. 17685 Juniper Path, Suite 301

City Lakeville State MN ZIP 55044 - \_\_\_\_\_

Contact person: Phil Kairis Title Vice President

Telephone ( 651 ) 341 - 2244 Ext. \_\_\_\_\_

Facsimile ( 651 ) 460 - 6717

**B. Facility Location**

Temporary source?  Yes  No

Plant site location 5734 Sturgeon Lake Road

City Red Wing State MN County Goodhue EPA Region 5

Is the facility located within:

Indian lands?  YES  NO OCS waters?  YES  NO

Non-attainment area?  YES  NO If yes, for what air pollutants? \_\_\_\_\_

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

**C. Owner**

Name Energy Alternatives, Inc. Street/P.O. Box 17685 Juniper Path, Suite 301

City Lakeville State MN ZIP 55044 - \_\_\_\_\_

Telephone ( 651 ) 341 - 2244 Ext \_\_\_\_\_

**D. Operator**

Name Same as Owner 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? 04 / 08 / 2009

**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.

Permit No. V-PI-R50004-03-01, Section 2.0 (A) Emission Limitations and Standards

1.i. Total NOx emissions from each engine shall not exceed 6.55 g/bhp-hr.

ii. Total NOx emissions from each engine shall not exceed 37.44 lb/hr.

iii. Total NOx emissions from each engine shall not exceed 10.30 tons/year.

2. Total operating hours of each engine shall not exceed 550 hrs/year, based on a 12-month rolling sum.

**H. Process Description**

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

Process	Products	SIC
Electricity generation		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
EU-01	Internal Combustion Engine (diesel-fired); Caterpillar 3516B
EU-02	Internal Combustion Engine (diesel-fired); Caterpillar 3516B
EU-03	Internal Combustion Engine (diesel-fired); Caterpillar 3516B
EU-04	Internal Combustion Engine (diesel-fired); Caterpillar 3516B

**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	<u>41.2</u>	tons/yr	VOC	<u>1.3</u>	tons/yr	SO2	<u>1.0</u>	tons/yr
PM-10	<u>0.8</u>	tons/yr	CO	<u>3.4</u>	tons/yr	Lead	<u>0</u>	tons/yr
Total HAP		<u>0.0</u>	tons/yr					
Single HAP emitted in the greatest amount		<u>Benzene</u>			PTE		<u>0.01</u>	tons/yr
Total of regulated pollutants (for fee calculation), Sec. F, line 5 of form FEE		<u>8</u>		tons/yr				

**K. Existing Federally-Enforceable Permits**

Permit number(s)	<u>V-PI-R50004-03-01</u>	Permit type	<u>Part 71</u>	Permitting authority	<u>EPA Region 5</u>
Permit number(s)	_____	Permit type	_____	Permitting authority	_____

**L. Emission Unit(s) Covered by General Permits**

Emission unit(s) subject to general permit	_____		
Check one:	<input type="checkbox"/> Application made	<input type="checkbox"/> Coverage granted	
General permit identifier	_____	Expiration Date	___/___/___

**M. Cross-referenced Information**

Does this application cross-reference information?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	(If yes, see instructions)
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INSTRUCTIONS FOLLOW

Federal Operating Permit Program (40 CFR Part 71)

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

**A. General Information**

Emissions unit ID EU-01 Description Diesel fired internal combustion engine

SIC Code (4-digit) 4911 SCC Code 20100102

**B. Emissions Unit Description**

Primary use Backup power and peak load management Temporary Source  Yes  No

Manufacturer Caterpillar Model No. 3516B

Serial Number 7RN01901 Installation Date 05 / 25 / 2001

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 16.76 MM BTU/hr Max. Design Heat Input 16.76 MM BTU/hr

**C. Fuel Data**

Primary fuel type(s) Diesel Standby fuel type(s) NA

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	0.05%	NA	0.129 MMBtu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	17,446 gallons (1)	130.2 gallons	71,610 gallons (2)

(1) Based on 134 operating hours in 2007 x 130.2 gallons/hour.

(2) Based on limit of 550 operating hours per year x 130.2 gallons/hour.

**E. Associated Air Pollution Control Equipment**

Emissions unit ID \_\_\_\_\_ Device type NA

Air pollutant(s) Controlled \_\_\_\_\_ Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Installation date \_\_\_\_/\_\_\_\_/\_\_\_\_ Control efficiency (%) \_\_\_\_\_

Efficiency estimation method \_\_\_\_\_

**F. 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) _____.	Inside stack diameter (ft) _____.
Stack temp(°F) _____.	Design stack flow rate (ACFM) _____.
Actual stack flow rate (ACFM) _____.	Velocity (ft/sec) _____.

An Ambient Impact Assessment was submitted with the PSD construction permit application.

Federal Operating Permit Program (40 CFR Part 71)

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

**A. General Information**

Emissions unit ID EU-02 Description Diesel fired internal combustion engine

SIC Code (4-digit) 4911 SCC Code 20100102

**B. Emissions Unit Description**

Primary use Backup power and peak load management Temporary Source  Yes  No

Manufacturer Caterpillar Model No. 3516B

Serial Number 7RN01825 Installation Date 05 / 25 / 2001

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 16.76 MM BTU/hr Max. Design Heat Input 16.76 MM BTU/hr

**C. Fuel Data**

Primary fuel type(s) Diesel Standby fuel type(s) NA

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	0.05%	NA	0.129 MMBtu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	17,446 gallons (1)	130.2 gallons	71,610 gallons (2)

(1) Based on 134 operating hours in 2007 x 130.2 gallons/hour.

(2) Based on limit of 550 operating hours per year x 130.2 gallons/hour.

**E. Associated Air Pollution Control Equipment**

Emissions unit ID \_\_\_\_\_ Device type NA

Air pollutant(s) Controlled \_\_\_\_\_ Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Installation date \_\_\_\_/\_\_\_\_/\_\_\_\_ Control efficiency (%) \_\_\_\_\_

Efficiency estimation method \_\_\_\_\_

**F. 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) _____	Inside stack diameter (ft) _____
Stack temp(°F) _____	Design stack flow rate (ACFM) _____
Actual stack flow rate (ACFM) _____	Velocity (ft/sec) _____

An Ambient Impact Assessment was submitted with the PSD construction permit application.

Federal Operating Permit Program (40 CFR Part 71)

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

**A. General Information**

Emissions unit ID EU-03 Description Diesel fired internal combustion engine

SIC Code (4-digit) 4911 SCC Code 20100102

**B. Emissions Unit Description**

Primary use Backup power and peak load management Temporary Source  Yes  No

Manufacturer Caterpillar Model No. 3516B

Serial Number 7RN01827 Installation Date 05 / 25 / 2001

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 16.76 MM BTU/hr Max. Design Heat Input 16.76 MM BTU/hr

**C. Fuel Data**

Primary fuel type(s) Diesel Standby fuel type(s) NA

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	0.05%	NA	0.129 MMBtu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	17,446 gallons (1)	130.2 gallons	71,610 gallons (2)

(1) Based on 134 operating hours in 2007 x 130.2 gallons/hour.

(2) Based on limit of 550 operating hours per year x 130.2 gallons/hour.

**E. Associated Air Pollution Control Equipment**

Emissions unit ID \_\_\_\_\_ Device type NA

Air pollutant(s) Controlled \_\_\_\_\_ Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Installation date \_\_\_\_/\_\_\_\_/\_\_\_\_ Control efficiency (%) \_\_\_\_\_

Efficiency estimation method \_\_\_\_\_

**F. 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) _____	Inside stack diameter (ft) _____
Stack temp(°F) _____	Design stack flow rate (ACFM) _____
Actual stack flow rate (ACFM) _____	Velocity (ft/sec) _____

An Ambient Impact Assessment was submitted with the PSD construction permit application.

Federal Operating Permit Program (40 CFR Part 71)

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

**A. General Information**

Emissions unit ID EU-04 Description Diesel fired internal combustion engine  
SIC Code (4-digit) 4911 SCC Code 20100102

**B. Emissions Unit Description**

Primary use Backup power and peak load management Temporary Source  Yes  No  
Manufacturer Caterpillar Model No. 3516B  
Serial Number 7RN01824 Installation Date 05 / 25 / 2001  
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 16.76 MM BTU/hr Max. Design Heat Input 16.76 MM BTU/hr

**C. Fuel Data**

Primary fuel type(s) Diesel Standby fuel type(s) NA

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	0.05%	NA	0.129 MMBtu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	17,446 gallons (1)	130.2 gallons	71,610 gallons (2)

(1) Based on 134 operating hours in 2007 x 130.2 gallons/hour.

(2) Based on limit of 550 operating hours per year x 130.2 gallons/hour.

**E. Associated Air Pollution Control Equipment**

Emissions unit ID \_\_\_\_\_ Device type NA

Air pollutant(s) Controlled \_\_\_\_\_ Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Installation date \_\_\_\_/\_\_\_\_/\_\_\_\_ Control efficiency (%) \_\_\_\_\_

Efficiency estimation method \_\_\_\_\_

**F. 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) _____	Inside stack diameter (ft) _____
Stack temp(°F) _____	Design stack flow rate (ACFM) _____
Actual stack flow rate (ACFM) _____	Velocity (ft/sec) _____

An Ambient Impact Assessment was submitted with the PSD construction permit application.



**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-01

**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)	
Nitrogen oxides (NO <sub>x</sub> )	2.0	37.44	10.30	
Volatile Organic Compounds (VOC)	0.08	1.16	0.32	
Sulfur Dioxide (SO <sub>2</sub> )	0.06	0.91	0.25	
Particulate Matter less than 10 microns in diameter (PM <sub>10</sub> )	0.05	0.72	0.20	
HAPs	0.00	0.025	0.01	

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-02
**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)	
Nitrogen oxides (NOx)	2.1	37.44	10.30	
Volatile Organic Compounds (VOC)	0.08	1.16	0.32	
Sulfur Dioxide (SO2)	0.06	0.91	0.25	
Particulate Matter less than 10 microns in diameter (PM10)	0.05	0.72	0.20	
HAPs	0.00	0.025	0.01	

**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-03

**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)	
Nitrogen oxides (NOx)	2.1	37.44	10.30	
Volatile Organic Compounds (VOC)	0.07	1.16	0.32	
Sulfur Dioxide (SO2)	0.06	0.91	0.25	
Particulate Matter less than 10 microns in diameter (PM10)	0.05	0.72	0.20	
HAPs	0.00	0.025	0.01	

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-04
**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)	
Nitrogen oxides (NOx)	1.2	37.44	10.30	
Volatile Organic Compounds (VOC)	0.04	1.16	0.32	
Sulfur Dioxide (SO2)	0.03	0.91	0.25	
Particulate Matter less than 10 microns in diameter (PM10)	0.03	0.72	0.20	
HAPs	0.00	0.025	0.01	

**Treasure Island Resort and Casino  
Energy Alternatives, Inc.  
Emissions Calculations  
Part 71 Permit Renewal**

**NOx Emissions**

Emission Unit	2007 Annual Op Hrs (hr/yr)	NOx Emission Factors (lb/hr)	Actual Annual NOx Emissions (ton/yr)	Potential to Emit	
				Hourly (lb/hr)	Annual (ton/yr)
EU-01	134	29.58	2.0	37.44	10.30
EU-02	135	31.83	2.1	37.44	10.30
EU-03	127	33.09	2.1	37.44	10.30
EU-04	75	33.08	1.2	37.44	10.30
<b>Total</b>			<b>7.5</b>	<b>149.76</b>	<b>41.18</b>

NOx emission factors are from annual testing conducted January 22, 2008.  
Potential to emit is based on current permit limits.

**Other Criteria Pollutants**

Pollutant:	VOC	SO2
Emission Factors (lb/hr)	1.16	0.9114

Emission Unit	Annual Op Hrs	Actual Emissions (ton/yr)	Potential to Emit		Actual Emissions (ton/yr)	Potential to Emit	
			Hourly (lb/hr)	Annual (ton/yr)		Hourly (lb/hr)	Annual (ton/yr)
EU-01	134	0.08	1.16	0.32	0.06	0.91	0.25
EU-02	135	0.08	1.16	0.32	0.06	0.91	0.25
EU-03	127	0.07	1.16	0.32	0.06	0.91	0.25
EU-04	75	0.04	1.16	0.32	0.03	0.91	0.25
<b>Subtotals</b>		<b>0.27</b>	<b>4.64</b>	<b>1.28</b>	<b>0.21</b>	<b>3.65</b>	<b>1.00</b>

Pollutant:	PM10	CO
Emission Factors (lb/hr)	0.715	3.05

Emission Unit	Annual Op Hrs	Actual Emissions (ton/yr)	Potential to Emit		Actual Emissions (ton/yr)	Potential to Emit	
			Hourly (lb/hr)	Annual (ton/yr)		Hourly (lb/hr)	Annual (ton/yr)
EU-01	134	0.05	0.72	0.20	0.20	3.05	0.84
EU-02	135	0.05	0.72	0.20	0.21	3.05	0.84
EU-03	127	0.05	0.72	0.20	0.19	3.05	0.84
EU-04	75	0.03	0.72	0.20	0.11	3.05	0.84
<b>Subtotals</b>		<b>0.17</b>	<b>2.86</b>	<b>0.79</b>	<b>0.72</b>	<b>12.20</b>	<b>3.36</b>

The VOC and CO emission factors were provided by Ziegler for a Caterpillar 3516B dry engine manifold.  
 $SO_2 \text{ (lb/hr)} = 130.2 \text{ gal fuel/hr} * \text{density (7 lb fuel/gal)} * 0.05 \text{ part S/100 parts fuel} * \text{lbmol S/32 lb S} * 64 \text{ lb SO}_2/\text{lbmol SO}_2$   
 PM10 is calculated based on the fraction of PM10 in PM, provided in AP-42, Table 3.4-2, multiplied by the emission factor provided by the engine manufacturer.  
 $PM_{10} \text{ (lb/hr)} = (0.0573 \text{ lb/MMBtu}) / (0.0697 \text{ lb/MMBtu}) * 0.87 \text{ lb/hr}$   
 Annual potential to emit is limited by a permit limit of 550 hours per year per engine.

Treasure Island Resort and Casino  
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**HAP Emissions**

Pollutant:	Benzene	Toluene	Xylenes	Formaldehyde
Emission Factors (lb/hr)	0.013	0.0047	0.00323	0.00132

Emission Unit	Annual Op Hrs	Actual Emissions (ton/yr)	PTE Annual (ton/yr)						
EU-01	134	8.71E-04	3.58E-03	3.15E-04	1.29E-03	2.16E-04	8.88E-04	8.84E-05	3.63E-04
EU-02	135	8.78E-04	3.58E-03	3.17E-04	1.29E-03	2.18E-04	8.88E-04	8.91E-05	3.63E-04
EU-03	127	8.26E-04	3.58E-03	2.98E-04	1.29E-03	2.05E-04	8.88E-04	8.38E-05	3.63E-04
EU-04	75	4.88E-04	3.58E-03	1.76E-04	1.29E-03	1.21E-04	8.88E-04	4.95E-05	3.63E-04
Subtotals		0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00

Pollutant:	Acetaldehyde	Acrolein	Naphthalene	Total HAPs
Emission Factors (lb/hr)	0.000422	0.000132	0.00217	0.0223

Emission Unit	Annual Op Hrs	Actual Emissions (ton/yr)	PTE Annual (ton/yr)						
EU-01	134	2.83E-05	1.16E-04	8.84E-06	3.63E-05	1.45E-04	5.97E-04	0.00	0.01
EU-02	135	2.85E-05	1.16E-04	8.91E-06	3.63E-05	1.46E-04	5.97E-04	0.00	0.01
EU-03	127	2.68E-05	1.16E-04	8.38E-06	3.63E-05	1.38E-04	5.97E-04	0.00	0.01
EU-04	75	1.58E-05	1.16E-04	4.95E-06	3.63E-05	8.14E-05	5.97E-04	0.00	0.01
Subtotals		0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03

HAP emission factors are from Table 3.4-3 in AP-42.

$$EF \text{ (lb/hr)} = (130.2 \text{ gal/hr}) * (7 \text{ lb fuel/gal}) * (18,290 \text{ Btu/lb}) * (\text{MMBtu}/10^6 \text{ Btu}) * EF \text{ (lb/MMBtu)}$$

**Federal Operating Permit Program (40 CFR Part 71)**
**POTENTIAL TO EMIT (PTE)**

For each unit with emissions that count towards applicability, list the emissions unit ID and the PTE for the air pollutants listed below and sum them up to show totals for the facility. You may find it helpful to complete form **EMISS** before completing this form. Show other pollutants not listed that are present in major amounts at the facility on attachment in a similar fashion. You may round values to the nearest tenth of a ton. Also report facility totals in section J of form **GIS**.

Emissions Unit ID	Regulated Air Pollutants and Pollutants for which the Source is Major (tons/yr)						
	NOx	VOC	SO2	PM10	CO	Lead	HAP
EU-01	10.3	0.3	0.3	0.2	0.8	0	0.0
EU-02	10.3	0.3	0.3	0.2	0.8	0	0.0
EU-03	10.3	0.3	0.3	0.2	0.8	0	0.0
EU-04	10.3	0.3	0.3	0.2	0.8	0	0.0
<b>FACILITY TOTALS</b>	<b>41.2</b>	<b>1.3</b>	<b>1.0</b>	<b>0.8</b>	<b>3.4</b>	<b>0</b>	<b>0.0</b>

Form FEE, Fee Calculation Worksheet, was submitted with the Annual Fee Payment on June 10, 2008 in accordance with the schedule in Section 4.0 (B) of Permit No. V-PI-R50004-03-01.

Form A-COMP, Annual Compliance Certification, was submitted May 2, 2008 in accordance with the schedule in Section 4.0 (D) of Permit No. V-PI-R50004-03-01.