45CSR 13 New Source Review (NSR) Air Permit Application

Plateau Medical Center
Oak Hill, West Virginia

Prepared for:

Plateau Medical Center
430 Main Street
Oak Hill, West Virginia

Prepared by:

AMEC Foster Wheeler Environment & Infrastructure, Inc.
Chelmsford, Massachusetts

July 2015

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APPLICATION FOR NSR PERMIT AND TITLE V PERMIT REVISION

WEST VIRGINIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

APPLICATION FOR NSR PERMIT

AND

TITLE V PERMIT REVISION

(OPTIONAL)

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

☒ **CONSTRUCTION** ☐ **MODIFICATION** ☐ **RELOCATION**
☐ **CLASS I ADMINISTRATIVE UPDATE** ☐ **TEMPORARY**
☐ **CLASS II ADMINISTRATIVE UPDATE** ☒ **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

☐ **ADMINISTRATIVE AMENDMENT** ☐ **MINOR MODIFICATION**
☐ **SIGNIFICANT MODIFICATION**

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant *(as registered with the WV Secretary of State's Office):*
Plateau Medical Center

2. Federal Employer ID No. ***(FEIN):***
270003893

3. Name of facility *(if different from above):*
N/A

4. The applicant is the:
☐ **OWNER** ☐ **OPERATOR** ☒ **BOTH**

5A. Applicant's mailing address:
430 Main Street

Oak Hill, WV 25901

5B. Facility's present physical address:
430 Main Street

Oak Hill, WV 25901

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? ☒ **YES** ☐ **NO**

- If **YES,** provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A.**
- If **NO,** provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A.**

7. If applicant is a subsidiary corporation, please provide the name of parent corporation: **Community Health Systems, Inc.**

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site?* ☒ **YES** ☐ **NO**

- If **YES,** please explain: **Plateau Medical Center owns the property.**
- If **NO,** you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated** or **temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): **General Medical and Surgical Hospitals**

10. North American Industry Classification System **(NAICS)** code for the facility:
622100

11A. DAQ Plant ID No. (for existing facilities only):
N/A

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
N/A

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A. For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;

– For **Construction** or **Relocation permits,** please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

From Interstate 64/77, take Exit 60 and take Rte. 612 East for 7.7 miles. Take a left on Scarbro Road (County Rte 1). Follow Scarbro Road 1.4 miles until it turns into Maple Avenue. Follow Maple Avenue 0.2 miles and turn left on Main Street. Hospital will be immediately on the left.

From Interstate 19 South, take the Main Street (Rt 16) exit towards Rte 61 N. Turn right on Main Street (Rte. 16) and the Hospital will be on your right in 0.6 miles. From Interstate 19 North, take the Main Street (Rt 16) exit towards Rte 61 N. Turn left on Main Street (Rte. 16) and the Hospital will be on your left in 0.3 miles.

12.B. New site address (if applicable):	12C. Nearest city or town:	12D. County:
N/A	**Oak Hill**	**Fayette**
12.E. UTM Northing (KM): **4202.736**	12F. UTM Easting (KM): **486.867**	12G. UTM Zone: **17**

13. Briefly describe the proposed change(s) at the facility:
Permitting of three diesel-fired emergency generators.

14A. Provide the date of anticipated installation or change: / / – If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen: **Generators were installed in 2002, 2005, and 2011.**	14B. Date of anticipated Start-Up if a permit is granted: **N/A**

14C. Provide a **Schedule** of the planned **Installation** of/**Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day **24** Days Per Week **3** Weeks Per Year **7**

16. Is demolition or physical renovation at an existing facility involved? ☐ **YES** ☒ **NO**

17**. Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18**. Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process *(if known).* A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance *(if known).* Provide this information as **Attachment D.**

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan,** e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to ***Plot Plan Guidance***) **.**

– Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F.**

23. Provide a **Process Description** as **Attachment G.**
– Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H.**
– For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I.**

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J.**

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K.**

28. Check all applicable **Emissions Unit Data Sheets** listed below:

☐ Bulk Liquid Transfer Operations	☐ Haul Road Emissions	☐ Quarry
☐ Chemical Processes	☐ Hot Mix Asphalt Plant	☐ Solid Materials Sizing, Handling and Storage Facilities
☐ Concrete Batch Plant	☐ Incinerator	☐ Storage Tanks
☐ Grey Iron and Steel Foundry	☐ Indirect Heat Exchanger	

☒ General Emission Unit, specify **Emergency Generator**

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L.**

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

☐ Absorption Systems	☐ Baghouse	☐ Flare
☐ Adsorption Systems	☐ Condenser	☐ Mechanical Collector
☐ Afterburner	☐ Electrostatic Precipitator	☐ Wet Collecting System

☐ Other Collectors, specify

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M.**

30. Provide all **Supporting Emissions Calculations** as **Attachment N,** or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O.**

- Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and ***Example Legal Advertisement*** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33**. Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

☐ **YES** ☒ **NO**

- If **YES,** identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"**Precautionary Notice – Claims of Confidentiality"*** guidance found in the ***General Instructions*** as **Attachment Q.**

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

☐ Authority of Corporation or Other Business Entity	☐ Authority of Partnership
☐ Authority of Governmental Agency	☐ Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R.**

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned ☐ **Responsible Official** / ☐ **Authorized Representative,** hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE _____ DATE: _____

(Please use blue ink) *(Please use blue ink)*

35B. Printed name of signee: **Dennis Smith**		35C. Title: **Interim Plant Operations Director**
35D. E-mail**: dennis_smith@chs.net**	36E. Phone: **304-784-3823**	36F. FAX: **304-235-0538**
36A. Printed name of contact person (if different from above):		36B. Title:
36C. E-mail	36D. Phone:	36E. FAX:

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- ☒ **Attachment A: Business Certificate**
- ☒ **Attachment B: Map(s)**
- ☐ **Attachment C: Installation and Start Up Schedule**
- ☒ **Attachment D: Regulatory Discussion**
- ☒ **Attachment E: Plot Plan**
- ☒ **Attachment F: Detailed Process Flow Diagram(s)**
- ☒ **Attachment G: Process Description**
- ☒ **Attachment H: Material Safety Data Sheets (MSDS)**
- ☒ **Attachment I: Emission Units Table**
- ☒ **Attachment J: Emission Points Data Summary Sheet**
- ☒ **Attachment K: Fugitive Emissions Data Summary Sheet**
- ☒ **Attachment L: Emissions Unit Data Sheet(s)**
- ☐ **Attachment M: Air Pollution Control Device Sheet(s)**
- ☒ **Attachment N: Supporting Emissions Calculations**
- ☒ **Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans**
- ☒ **Attachment P: Public Notice**
- ☐ **Attachment Q: Business Confidential Claims**
- ☐ **Attachment R: Authority Forms**
- ☐ **Attachment S: Title V Permit Revision Information**
- ☒ **Application Fee**

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- ☐ ***Forward 1 copy of the application to the Title V Permitting Group and:***
- ☐ ***For Title V Administrative Amendments:***
  - ☐ ***NSR permit writer should notify Title V permit writer of draft permit,***
- ☐ ***For Title V Minor Modifications:***
  - ☐ ***Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,***
  - ☐ ***NSR permit writer should notify Title V permit writer of draft permit.***
- ☐ ***For Title V Significant Modifications processed in parallel with NSR Permit revision:***
  - ☐ ***NSR permit writer should notify a Title V permit writer of draft permit,***
  - ☐ ***Public notice should reference both 45CSR13 and Title V permits,***
  - ☐ ***EPA has 45 day review period of a draft permit.***

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

ATTACHMENT A
BUSINESS CERTIFICATE

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE

ISSUED TO:
OAK HILL HOSPITAL CORPORATION
DBA PLATEAU MEDICAL CENTER
430 MAIN ST W
OAK HILL, WV 25901-3414

BUSINESS REGISTRATION ACCOUNT NUMBER: **1024-0377**

This certificate is issued on: 06/22/2011

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued.

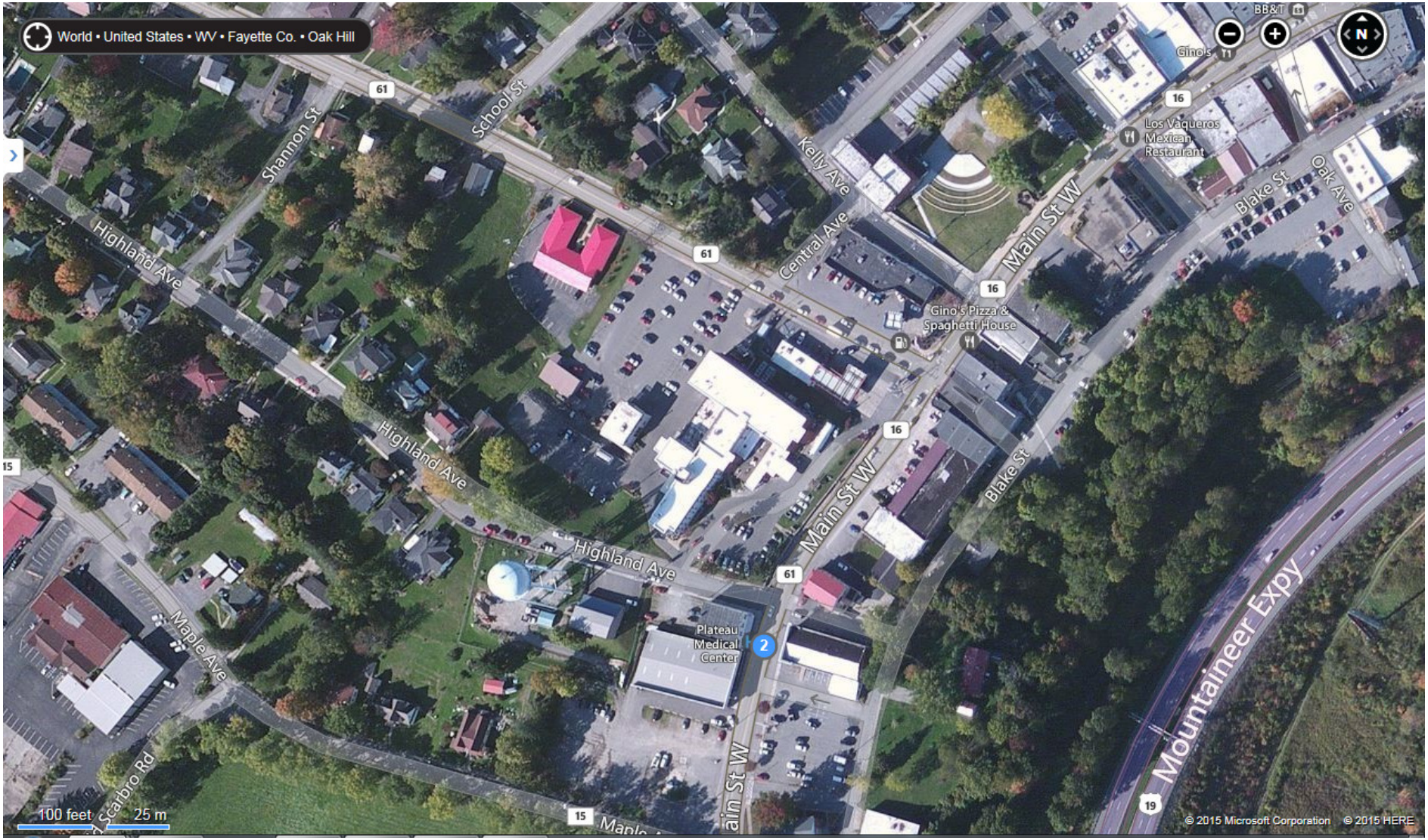
This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L1697004672

ATTACHMENT B
MAP


World • United States • WV • Fayette Co. • Oak Hill
61
School St
Shannon St
Highland Ave
Kelly Ave
Central Ave
Main St W
16
Gino's
BB&T
Los Vaqueros Mexican Restaurant
Blake St
Oak Ave
Gino's Pizza & Spaghetti House
Highland Ave
Highland Ave
Main St W
Blake St
Plateau Medical Center
Maple Ave
Scarbro Rd
Mountaineer Expy
19
15
100 feet
25 m
© 2015 Microsoft Corporation
© 2015 HERE

ATTACHMENT C
INSTALLATION AND START UP SCHEDULE

The 150 kW Caterpillar diesel-fired emergency generator was installed in 2011. The 230 kW Caterpillar diesel-fired emergency generator was installed in 2005. The 105 kW Kohler diesel-fired emergency generator was installed in 2002.

No new equipment is being installed as part of this NSR permit application.

ATTACHMENT D
REGULATORY DISCUSSION

This section briefly outlines the federal and state air quality requirements to which Plateau Medical Center's three diesel-fired emergency generators are subject.

Federal Requirements for the Emergency Generators

New Source Performance Standards (NSPS)

The 150 kW diesel-fired emergency generator was installed in 2011 and is therefore, subject to 40 CFR 60, Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and the associated fuel, monitoring, compliance, testing, notification, reporting, and recordkeeping requirements (40 CFR 60.4200 *et seq*.) and related applicable provisions of 40 CFR 60.7 and 60.8.

The emission standards in NSPS Subpart IIII applicable to the 150 kW emergency generator are summarized below.

Emission Standards for Emergency Engines (g/kW-hr)

Emergency Engine	**Model Year**	**NMHC+NOX**	**CO**	**PM**
150 kW emergency generator	2006 and after	4.0	3.5	0.20

The 150 kW emergency generator meets the applicable emission limits and provisions of NSPS Subpart IIII.

National Emissions Standards for Hazardous Air Pollutants

The 230 kW and 105 kW diesel-fired emergency generators are subject to 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines ("RICE MACT"). However, in accordance with 40 CFR 63.6585(f), the RICE NESHAP **does not** apply to the 230 kW and 105 kW diesel-fired emergency generators because they are existing institutional emergency stationary engines located at an area source of HAPs.

State Requirements

45 CSR 11 (Prevention of Air Pollution Emergency Episodes)
When requested by the WVDEP Director, Plateau Medical Center will prepare standby plans for reducing air pollutant emissions during Air Pollution Alerts, Air Pollution Warnings, and Air Pollution Emergencies.

45 CSR 13 (Permits for Construction, Modification, Relocation Updates, Temporary Permits, General Permits, and Procedures for Evaluation)
This permit application is being submitted pursuant to 45 CSR 13 for the construction of the three diesel-fired emergency generators.

45 CSR 14 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration)
Plateau Medical Center is not a major source and the installation of the three diesel-fired emergency generators does not trigger Prevention of Significant Deterioration requirements.

45 CSR 16 (Standards of Performance for New Stationary Sources)
As described above, the 150 kW emergency generator is subject to NSPS Subpart IIII in 40 CFR 60.

45 CSR 19 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution Which Cause or Contribute to Nonattainment)
Plateau Medical Center is not a major source and the installation of the three diesel-fired emergency generators does not trigger New Source Review for any non-attainment pollutants (i.e. SO2).

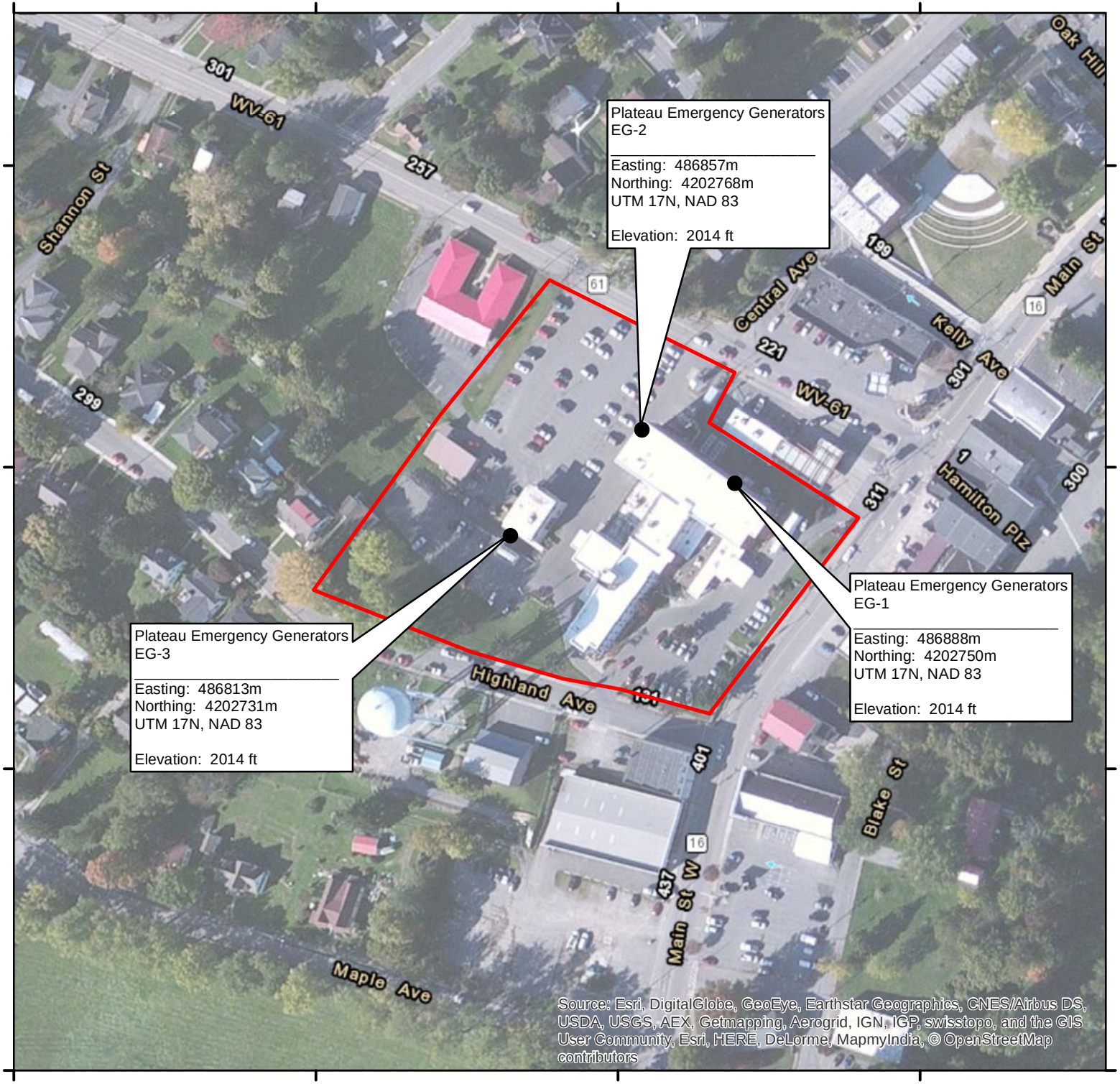
45 CSR 27 (To Prevent and Control the Emissions of Toxic Air Pollutants)
Plateau Medical Center does not utilize equipment that will be subject to the provisions of this rule.

45 CSR 30 (Requirements for Operating Permits)
Plateau Medical Center is not a major source subject to the Title V Operating Permit program.

45 CSR 33 (Acid Rain Provisions and Permits)
Plateau Medical Center is not a major source subject to the Acid Rain program.

45 CSR 34 (Emission Standards for Hazardous Air Pollutants)
As described above, the 230 kW and 105 kW diesel-fired emergency generators are not subject to any of the federal NESHAPs.

ATTACHMENT E
PLOT PLAN



486648 486748 486848 486948

4202855 4202755 4202655 4202555

PLOT PLAN

Plateau Medical Center

Figure 1

Legend

- Emergency Generators
- Plateau Medical Center Boundary

0 50 Meters

0 150 Feet

1 in = 150 ft

Prepared For:

PLATEAU MEDICAL CENTER

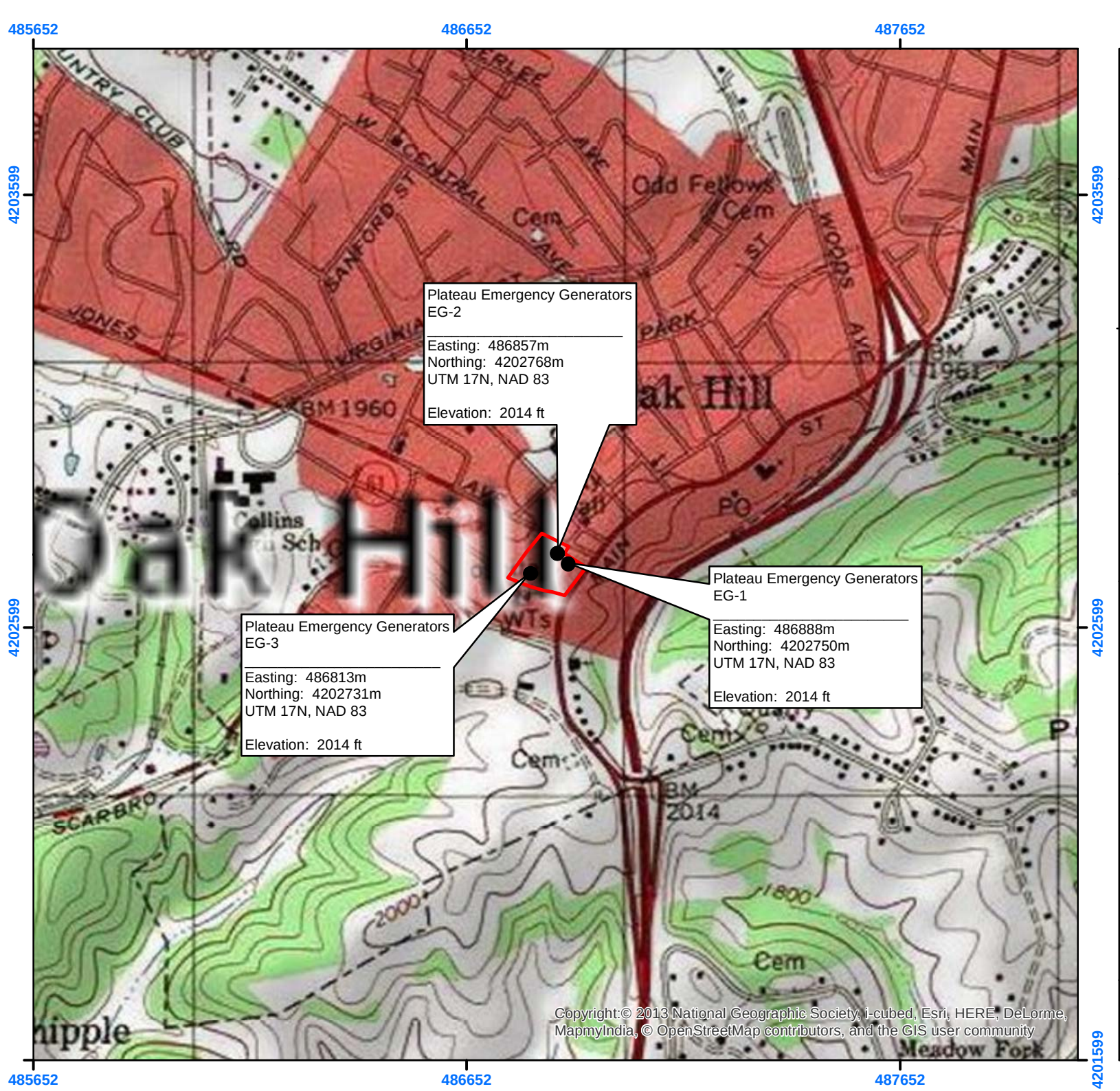
N W E S

Prepared By:

amec foster wheeler

Amec Foster Wheeler
Environment & Infrastructure, Inc.
271 Mill Road
Chelmsford, MA 01824
(978) 692-9090

Imagery: ESRI, 2015.
Projection: NAD 1983 UTM Zone 17N
Drawn by: AKN, Submitted: 04-27-2015



AREA MAP

Plateau Medical Center

Figure 2

Legend

- Emergency Generators
- Plateau Medical Center Boundary

0 375 Meters

0 1,000 Feet

1 in = 1,000 ft

Prepared For:

PLATEAU MEDICAL CENTER

N W E S

Prepared By:

amec foster wheeler

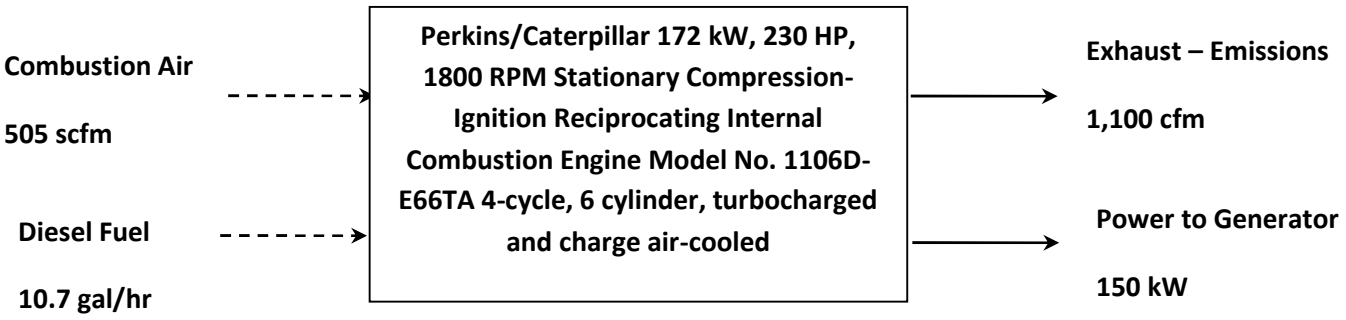
Amec Foster Wheeler
Environment & Infrastructure, Inc.
271 Mill Road
Chelmsford, MA 01824
(978) 692-9090

Imagery: ESRI, 2013.
Projection: NAD 1983 UTM Zone 17N
Drawn by: AKN, Submitted: 04-27-2015

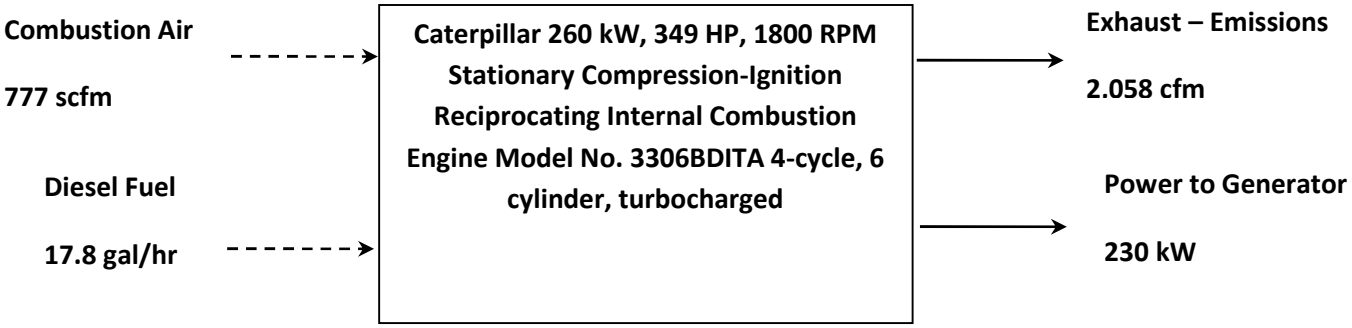
ATTACHMENT F
DETAILED PROCESS FLOW DIAGRAM

PROCESS FLOW DIAGRAM

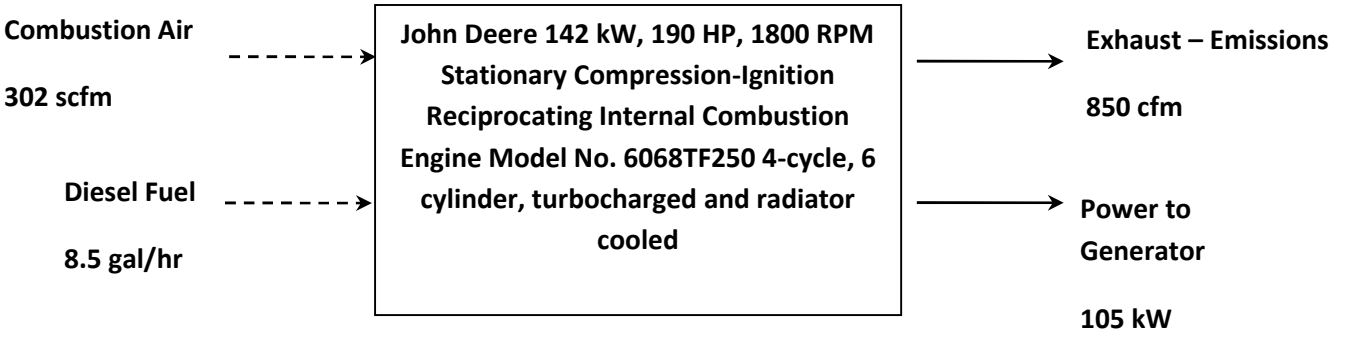
EG-1



EG-2



EG-3



ATTACHMENT G
PROCESS DESCRIPTION

Plateau Medical Center installed a diesel-fired 150 kW Caterpillar standby/emergency generator (EG-1) in 2011 for the purpose of producing emergency electrical power at Plateau Medical Center located in Oak Hill, West Virginia. The Caterpillar emergency electrical generator is driven by a Perkins 4-cycle, turbocharged and after-cooled engine as provided in the attached manufacturers' specifications. This generator has a 285-gallon aboveground diesel storage tank associated with it.

Plateau Medical Center installed a diesel-fired 230 kW Caterpillar standby/emergency generator (EG-2) in 2005 for the purpose of producing emergency electrical power at Plateau Medical Center located in Oak Hill, West Virginia. The Caterpillar emergency electrical generator is driven by a 349 hp Caterpillar 4-cycle, turbocharged and after-cooled engine as provided in the attached manufacturers' specifications. This generator has a 600-gallon underground diesel storage tank and a 25-gallon diesel day tank associated with it.

Plateau Medical Center installed a diesel-fired 105 kW Kohler standby/emergency generator (EG-3) in 2002 for the purpose of producing emergency electrical power at Plateau Medical Center located in Oak Hill, West Virginia. The Kohler emergency electrical generator is driven by a 190 hp John Deere 4-cycle, turbocharged engine as provided in the attached manufacturers' specifications. This generator has a 275-gallon aboveground diesel storage tank associated with it.

ATTACHMENT H
MATERIAL SAFETY DATA SHEET FOR FUEL OIL

MATERIAL SAFETY DATA SHEET

No. 2 Fuel Oil

MSDS No. 0088

EMERGENCY OVERVIEW
CAUTION!
OSHA/NFPA COMBUSTIBLE LIQUID - SLIGHT TO MODERATE IRRITANT - EFFECTS CENTRAL NERVOUS SYSTEM - HARMFUL OR FATAL IF SWALLOWED

Moderate fire hazard. Avoid breathing vapors or mists. May cause dizziness and drowsiness. May cause moderate eye irritation and skin irritation. Long-term, repeated exposure may cause skin cancer.

If ingested, do NOT induce vomiting, as this may cause chemical pneumonia (fluid in the lungs).

NFPA 704 (Section 16)

1. CHEMICAL PRODUCT and COMPANY INFORMATION

Hess Corporation
1 Hess Plaza
Woodbridge, NJ 07095-0961

EMERGENCY TELEPHONE NUMBER (24 hrs): **CHEMTREC (800) 424-9300**
COMPANY CONTACT (business hours): Corporate EHS (732) 750-6000
MSDS Internet Website: www.hess.com

SYNONYMS: #2 Heating Oil; 2 Oil; Off-road Diesel Fuel

See Section 16 for abbreviations and acronyms.

2. COMPOSITION and INFORMATION ON INGREDIENTS

INGREDIENT NAME (CAS No.)	CONCENTRATION PERCENT BY WEIGHT
#2 Fuel Oil (68476-30-2)	100
Naphthalene (91-20-3)	Typically 0.1

A complex combination of hydrocarbons with carbon numbers in the range C9 and higher produced from the distillation of petroleum crude oil.

3. HAZARDS IDENTIFICATION

EYES
Contact with eyes may cause mild irritation.

SKIN
Practically non-toxic if absorbed following acute (single) exposure. May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.

INGESTION
The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

INHALATION
Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

WARNING: the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

CHRONIC EFFECTS and CARCINOGENICITY
Similar products have produced skin cancer and systemic toxicity in laboratory animals following repeated applications. The significance of these results to human exposures has not been determined - see Section 11 Toxicological Information.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis (rash).

4. FIRST AID MEASURES

EYES
In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

SKIN
Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or with waterless hand cleanser. Obtain medical attention if irritation or redness develops.

INGESTION
DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

INHALATION
Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT:	100 ^{o}F (38 ^{o}C) minimum PMCC
AUTOIGNITION POINT:	494 ^{o}F (257 ^{o}C)
LOWER EXPLOSIVE LIMIT (%):	0.6
UPPER EXPLOSIVE LIMIT (%):	7.5

FIRE AND EXPLOSION HAZARDS
OSHA and NFPA Class 2 COMBUSTIBLE LIQUID (see Section 14 for transportation classification). Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

EXTINGUISHING MEDIA

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray, fire fighting foam, or Halon.

LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

FIRE FIGHTING INSTRUCTIONS

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment.

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing.

Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

See Section 16 for the NFPA 704 Hazard Rating.

6. ACCIDENTAL RELEASE MEASURES

ACTIVATE FACILITY'S SPILL CONTINGENCY OR EMERGENCY RESPONSE PLAN.

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

7. HANDLING and STORAGE

HANDLING PRECAUTIONS

Handle as a combustible liquid. Keep away from heat, sparks, excessive temperatures and open flame! No smoking or open flame in storage, use or handling areas. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when this product is loaded into tanks previously containing low flash point products (such as gasoline) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

STORAGE PRECAUTIONS
Keep containers closed and clearly labeled. Use approved vented storage containers. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks."

WORK/HYGIENIC PRACTICES
Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

8. EXPOSURE CONTROLS and PERSONAL PROTECTION

EXPOSURE LIMITS

Components (CAS No.)	Source	Exposure Limits TWA/STEL	Note
#2 Fuel Oil (68476-30-2)	OSHA	5 mg/m^3 (as mineral oil mist) TWA	
	ACGIH	0.2 mg/m^3 (as mineral oil) TWA	A2, skin
Naphthalene (91-20-3)	OSHA	10 ppm TWA	
	ACGIH	10 ppm TWA / 15 ppm STEL	A4, Skin

ENGINEERING CONTROLS
Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

EYE/FACE PROTECTION
Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

SKIN PROTECTION
Gloves constructed of nitrile, neoprene, or PVC are recommended. Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.

RESPIRATORY PROTECTION
A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE
Red or reddish/orange colored (dyed) liquid

ODOR
Mild, petroleum distillate odor

BASIC PHYSICAL PROPERTIES

BOILING RANGE:	340 to 700 °F (171 to 371 °C)
VAPOR PRESSURE:	0.009 psia @ 70 °F (21 °C)
VAPOR DENSITY (air = 1):	> 1.0
SPECIFIC GRAVITY (H_2O = 1):	AP 0.87
PERCENT VOLATILES:	100 %
EVAPORATION RATE:	Slow; varies with conditions
SOLUBILITY (H_2O):	Negligible

10. STABILITY and REACTIVITY

STABILITY: Stable. Hazardous polymerization will not occur

CONDITIONS TO AVOID and INCOMPATIBLE MATERIALS
Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources. Keep away from strong oxidizers; Viton ®; Fluorel ®

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

11. TOXICOLOGICAL PROPERTIES

ACUTE TOXICITY
Acute Oral LD50 (rat): 14.5 ml/kg
Acute Dermal LD50 (rabbit): > 5 ml/kg
Guinea Pig Sensitization: negative
Primary dermal irritation: moderately irritating (Draize mean irritation score - 3.98 rabbits)
Draize eye irritation: mildly irritating (Draize score, 48 hours, unwashed - 2.0 rabbits)

CHRONIC EFFECTS AND CARCINOGENICITY
Carcinogenic: IARC: NO NTP: NO OSHA: NO ACGIH: A2
Dermal carcinogenicity: positive - mice

Studies have shown that similar products produce skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation.

This product is similar to Diesel Fuel. IARC classifies whole diesel fuel exhaust particulates as probably carcinogenic to humans (Group 2A) and NIOSH regards it as a potential cause of occupational lung cancer based on animal studies and limited evidence in humans.

MUTAGENICITY (genetic effects)
Material of similar composition has been positive in a mutagenicity study.

12. ECOLOGICAL INFORMATION

Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under Federal and State regulations.

13. DISPOSAL CONSIDERATIONS

Consult federal, state and local waste regulations to determine appropriate disposal options.

14. TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:	FUEL OIL, NO. 2	Placard:
HAZARD CLASS & PACKING GROUP:	3, PG III	
DOT IDENTIFICATION NUMBER:	NA 1993	
DOT SHIPPING LABEL:	FLAMMABLE LIQUID	

May be reclassified for transportation as a COMBUSTIBLE LIQUID under conditions of DOT 49 CFR 173.120(b)(2).

15. REGULATORY INFORMATION

U.S. FEDERAL, STATE, and LOCAL REGULATORY INFORMATION

This product and its constituents listed herein are on the EPA TSCA Inventory. Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other regulations at the state and/or local level. Consult those regulations applicable to your facility/operation.

CLEAN WATER ACT (OIL SPILLS)

Any spill or release of this product to "navigable waters" (essentially any surface water, including certain wetlands) or adjoining shorelines sufficient to cause a visible sheen or deposit of a sludge or emulsion must be reported immediately to the National Response Center (1-800-424-8802) as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies as required.

CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIRONMENT)

The CERCLA definition of hazardous substances contains a “petroleum exclusion” clause which exempts crude oil, refined, and unrefined petroleum products and any indigenous components of such. However, other federal reporting requirements (e.g., SARA Section 304 as well as the Clean Water Act if the spill occurs on navigable waters) may still apply.

SARA SECTION 311/312 - HAZARD CLASSES

ACUTE HEALTH	CHRONIC HEALTH	FIRE	SUDDEN RELEASE OF PRESSURE	REACTIVE
X	X	X	--	--

SARA SECTION 313 - SUPPLIER NOTIFICATION

This product may contain listed chemicals below the *de minimis* levels which therefore are not subject to the supplier notification requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372. If you may be required to report releases of chemicals listed in 40 CFR 372.28, you may contact Hess Corporate Safety if you require additional information regarding this product.

CALIFORNIA PROPOSITON 65 LIST OF CHEMICALS

This product contains the following chemicals that are included on the Proposition 65 "List of Chemicals" required by the California Safe Drinking Water and Toxic Enforcement Act of 1986:

INGREDIENT NAME (CAS NUMBER)	Date Listed
Residual Fuel Oil (no CAS Number listed)	10/01/1990

CANADIAN REGULATORY INFORMATION (WHMIS)

Class B, Division 3(Combustible Liquid); Class D, Division 2, Subdivision B (Toxic by other means)

NFPA® HAZARD RATING

HEALTH:	0
FIRE:	2
REACTIVITY:	0

Refer to NFPA 704 "Identification of the Fire Hazards of Materials" for further information

HMIS® HAZARD RATING

HEALTH:	1 *	Slight
FIRE:	2	Moderate
PHYSICAL:	0	Negligible
		* Chronic

SUPERSEDES MSDS DATED: 05/24/02

ABBREVIATIONS:

AP = Approximately < = Less than > = Greater than
N/A = Not Applicable N/D = Not Determined ppm = parts per million

ACRONYMS:

ACGIH	American Conference of Governmental Industrial Hygienists
AIHA	American Industrial Hygiene Association
ANSI	American National Standards Institute (212) 642-4900
API	American Petroleum Institute (202) 682-8000
CERCLA	Comprehensive Emergency Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation [General info: (800) 467-4922]
EPA	U.S. Environmental Protection Agency
HMIS	Hazardous Materials Information System
IARC	International Agency For Research On Cancer
MSHA	Mine Safety and Health Administration
NFPA	National Fire Protection Association (617) 770-3000
NIOSH	National Institute of Occupational Safety and Health
NOIC	Notice of Intended Change (proposed change to ACGIH TLV)
NTP	National Toxicology Program
OPA	Oil Pollution Act of 1990
OSHA	U.S. Occupational Safety & Health Administration
PEL	Permissible Exposure Limit (OSHA)
RCRA	Resource Conservation and Recovery Act
REL	Recommended Exposure Limit (NIOSH)
SARA	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	Self-Contained Breathing Apparatus
SPCC	Spill Prevention, Control, and Countermeasures
STEL	Short-Term Exposure Limit (generally 15 minutes)
TLV	Threshold Limit Value (ACGIH)
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average (8 hr.)
WEEL	Workplace Environmental Exposure Level (AIHA)
WHMIS	Canadian Workplace Hazardous Materials Information System

ATTACHMENT I
EMISSIONS UNIT TABLE

Attachment I

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
S1	EG-1	Caterpillar Emergency Generator	2011	150 kW	New	N/A
S2	EG-2	Caterpillar Emergency Generator	2011	230 kW	New	N/A
S3	EG-3	Kohler Emergency Generator	2008	105 kW	New	N/A

1 For Emission Units (or Sources), use the following number system: 1S, 2S, 3S,… or other appropriate designation.

2 For Emission Points, use the following number system: 1E, 2E, 3E,… or other appropriate designation.

3 New, modification, removal

4 For Control Devices, use the following number system: 1C, 2C, 3C,… or other appropriate designation.

ATTACHMENT J
EMISSIONS POINTS DATA SUMMARY SHEET

Attachment J

EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data

Emission Point ID No. *(Must match Emission Units Table & Plot Plan)*	Emission Point Type[1]	Emission Unit Vented Through This Point *(Must match Emission Units Table & Plot Plan)*		Air Pollution Control Device *(Must match Emission Units Table & Plot Plan)*		Vent Time for Emission Unit *(chemical processes only)*		All Regulated Pollutants - Chemical Name/CAS[3] *(Speciate VOCs & HAPS)*	Maximum Potential Uncontrolled Emissions [4]		Maximum Potential Controlled Emissions [5]		Emission Form or Phase *(At exit conditions, Solid, Liquid or Gas/Vapor)*	Est. Method Used [6]	Emission Concentration [7] (ppmv or mg/m^4)
		ID No.	Source	ID No.	Device Type	Short Term[2]	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
EG-1	Upward Vertical Stack	S1	Caterpillar Emergency Generator	N/A	N/A	N/A	N/A	CO	1.32	0.3	1.32	0.3	Gas	Vendor	N/A
								NOx	1.44	0.4	1.44	0.4	Gas	Vendor	N/A
								PM	0.08	0.02	0.08	0.02	Solid	Vendor	N/A
								SO_2	0.93	0.2	0.93	0.2	Gas	AP-42	N/A
								VOC	0.08	0.02	0.08	0.02	Gas	Vendor	N/A
								Total HAPs	0.002	0.001	0.002	0.001	Gas	AP-42	N/A
								Benzene	0.001	0.000	0.001	0.000	Gas	AP-42	N/A
								CO_2	244.3	61.1	244.3	61.1	Gas	40 CFR 98	N/A
EG-2	Upward Vertical Stack	S2	Caterpillar Emergency Generator	N/A	N/A	N/A	N/A	CO	2.01	0.5	2.01	0.5	Gas	Vendor	N/A
								NOx	3.49	0.9	3.49	0.9	Gas	Vendor	N/A
								PM	0.11	0.03	0.11	0.03	Solid	Vendor	N/A
								SO_2	1.41	0.35	1.41	0.35	Gas	AP-42	N/A
								VOC	0.18	0.05	0.18	0.05	Gas	Vendor	N/A
								Total HAPs	0.004	0.001	0.004	0.001	Gas	AP-42	N/A
								Benzene	0.002	0.000	0.002	0.000	Gas	AP-42	N/A
								CO_2	406.4	101.6	406.4	101.6	Gas	40 CFR 98	N/A
EG-3	Upward Vertical Stack	S3	Kohler Emergency Generator	N/A	N/A	N/A	N/A	CO	3.57	0.9	3.57	0.9	Gas	Vendor	N/A
								NOx	2.88	0.7	2.88	0.7	Gas	Vendor	N/A
								PM	0.17	0.04	0.17	0.04	Solid	Vendor	N/A
								SO_2	0.77	0.19	0.77	0.19	Gas	AP-42	N/A
								VOC	0.41	0.1	0.41	0.1	Gas	Vendor	N/A
								Total HAPs	0.002	0.000	0.002	0.000	Gas	AP-42	N/A
								Benzene	0.001	0.000	0.001	0.000	Gas	AP-42	N/A
								CO_2	194.1	48.5	194.1	48.5	Gas	40 CFR 98	N/A

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

[1] Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

[2] Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

[3] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. **DO NOT LIST** H_2, H_2O, N_2, O_2, and Noble Gases.

[4] Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[5] Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[6] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

[7] Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m^3) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO_2, use units of ppmv (See 45CSR10).

Attachment J

EMISSION POINTS DATA SUMMARY SHEET

Table 2: Release Parameter Data

Emission Point ID No. *(Must match Emission Units Table)*	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow [1] (acfm) *at operating conditions*	Velocity (fps)	Ground Level *(Height above mean sea level)*	Stack Height [2] *(Release height of emissions above ground level)*	Northing	Easting
EG-1	1.00	~ 600	1,100	23.3	2,014	8	4202.750	486.888
EG-2	1.00	~600	2,058	43.7	2,014	25	4202.768	486.857
EG-3	1.00	~600	850	18.0	2,014	8	4202.731	486.813

[1] Give at operating conditions. Include inerts.

[2] Release height of emissions above ground level.

ATTACHMENT K
FUGITIVE EMISSIONS DATA SUMMARY SHEET

Attachment K
FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? ☐ Yes ☒ No ☐ If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? ☐ Yes ☒ No ☐ If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? ☐ Yes ☒ No ☐ If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? ☐ Yes ☒ No ☐ If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered “NO” to all of the items above, it is not necessary to complete the following table, “Fugitive Emissions Summary.”

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants - Chemical Name/CAS [1]	Maximum Potential Uncontrolled Emissions [2]		Maximum Potential Controlled Emissions [3]		Est. Method Used [4]
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads	N/A	N/A	N/A	N/A	N/A	N/A
Unpaved Haul Roads	N/A	N/A	N/A	N/A	N/A	N/A
Storage Pile Emissions	N/A	N/A	N/A	N/A	N/A	N/A
Loading/Unloading Operations	N/A	N/A	N/A	N/A	N/A	N/A
Wastewater Treatment Evaporation & Operations	N/A	N/A	N/A	N/A	N/A	N/A
Equipment Leaks	N/A	Does not apply	N/A	Does not apply	N/A	N/A
General Clean-up VOC Emissions	N/A	N/A	N/A	N/A	N/A	N/A
Other	N/A	N/A	N/A	N/A	N/A	N/A

[1] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. DO NOT LIST H_2, H_2O, N_2, O_2, and Noble Gases.

[2] Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[3] Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[4] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

ATTACHMENT L
EMISSIONS UNIT DATA SHEET

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.
Identification Number (as assigned on *Equipment List Form*):

1. Name or type and model of proposed affected source:

   150 kW Caterpillar Emergency Generator - EG-1

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

   N/A

4. Name(s) and maximum amount of proposed material(s) produced per hour:

   N/A

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

   N/A

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

Low sulfur diesel fuel - up to 10.7 gals/hr

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

< 0.1% sulfur

(c) Theoretical combustion air requirement (ACF/unit of fuel):

N/A @ N/A °F and N/A psia.

(d) Percent excess air: N/A

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

N/A

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

N/A

(g) Proposed maximum design heat input: 230 hp × 10^6 BTU/hr.

7. Projected operating schedule:

Hours/Day	1	Days/Week	1	Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@ 60 °F and ambient psia

a.	NO_X	1.44	lb/hr	N/A	grains/ACF
b.	SO_2	0.93	lb/hr	N/A	grains/ACF
c.	CO	1.32	lb/hr	N/A	grains/ACF
d.	PM_{10}	0.08	lb/hr	N/A	grains/ACF
e.	Hydrocarbons	0.08	lb/hr	N/A	grains/ACF
f.	VOCs	0.08	lb/hr	N/A	grains/ACF
g.	Pb	N/A	lb/hr	N/A	grains/ACF
h.	Specify other(s)				
	Total HAPs	0.002	lb/hr	N/A	grains/ACF
	CO2	244.3	lb/hr	N/A	grains/ACF
			lb/hr		grains/ACF
			lb/hr		grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
N/A	Plateau Medical Center will record the hours of operation of the emergency generator every month.
REPORTING	**TESTING**
N/A	N/A

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

N/A

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*):

1. Name or type and model of proposed affected source:

   230 kW Caterpillar Emergency Generator - EG-2

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

   N/A

4. Name(s) and maximum amount of proposed material(s) produced per hour:

   N/A

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

   N/A

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

Low sulfur diesel fuel - up to 17.8 gals/hr

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

< 0.1% sulfur

(c) Theoretical combustion air requirement (ACF/unit of fuel):

N/A @ N/A °F and N/A psia.

(d) Percent excess air: N/A

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

N/A

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

N/A

(g) Proposed maximum design heat input: 349 hp × 10^6 BTU/hr.

7. Projected operating schedule:

Hours/Day	1	Days/Week	1	Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@ 60 °F and ambient psia

a.	NO_X	3.49	lb/hr	N/A	grains/ACF
b.	SO_2	1.41	lb/hr	N/A	grains/ACF
c.	CO	2.01	lb/hr	N/A	grains/ACF
d.	PM_{10}	0.11	lb/hr	N/A	grains/ACF
e.	Hydrocarbons	0.18	lb/hr	N/A	grains/ACF
f.	VOCs	0.18	lb/hr	N/A	grains/ACF
g.	Pb	N/A	lb/hr	N/A	grains/ACF
h.	Specify other(s)				
	Total HAPs	0.004	lb/hr	N/A	grains/ACF
	CO2	406.4	lb/hr	N/A	grains/ACF
			lb/hr		grains/ACF
			lb/hr		grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
N/A	Plateau Medical Center will record the hours of operation of the emergency generator every month.
REPORTING	**TESTING**
N/A	N/A

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

N/A

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.
Identification Number (as assigned on *Equipment List Form*):

1. Name or type and model of proposed affected source: 105 kW Caterpillar Emergency Generator - EG-3
2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.
3. Name(s) and maximum amount of proposed process material(s) charged per hour: N/A
4. Name(s) and maximum amount of proposed material(s) produced per hour: N/A
5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants: N/A

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

Low sulfur diesel fuel - up to 8.5 gals/hr

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

< 0.1% sulfur

(c) Theoretical combustion air requirement (ACF/unit of fuel):

N/A @ N/A °F and N/A psia.

(d) Percent excess air: N/A

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

N/A

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

N/A

(g) Proposed maximum design heat input: 190 hp × 10^6 BTU/hr.

7. Projected operating schedule:

Hours/Day	1	Days/Week	1	Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@ 60 °F and ambient psia

a.	NO_X	2.88	lb/hr	N/A	grains/ACF
b.	SO_2	0.77	lb/hr	N/A	grains/ACF
c.	CO	3.57	lb/hr	N/A	grains/ACF
d.	PM_{10}	0.17	lb/hr	N/A	grains/ACF
e.	Hydrocarbons	0.41	lb/hr	N/A	grains/ACF
f.	VOCs	0.41	lb/hr	N/A	grains/ACF
g.	Pb	N/A	lb/hr	N/A	grains/ACF
h.	Specify other(s)				
	Total HAPs	0.002	lb/hr	N/A	grains/ACF
	CO2	194.1	lb/hr	N/A	grains/ACF
			lb/hr		grains/ACF
			lb/hr		grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
N/A	Plateau Medical Center will record the hours of operation of the emergency generator every month.
REPORTING	**TESTING**
N/A	N/A

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

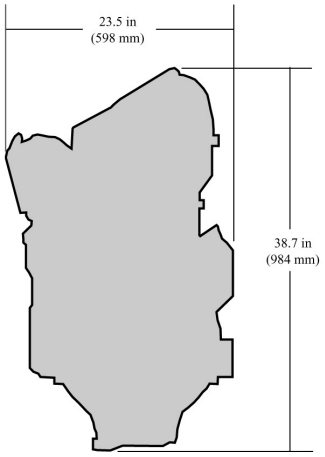
N/A

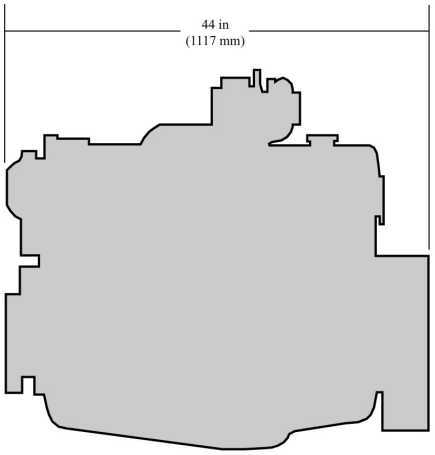
PowerTech ™ 6068TF250 Diesel Engine

Generator Drive Engine Specifications

6068TF250 shown

Dimensions





Certifications

CARB
EPA Tier 1

General data

Model	6068TF250	Aspiration	Turbocharged
Number of cylinders	6	Length - mm (in)	1117 (44.0)
Displacement - L (cu in)	6.8 (415)	Width - mm (in)	598 (23.5)
Bore and Stroke-- mm (in)	106 x 127 (4.17 x 5.00)	Height-- mm (in)	984 (38.7)
Compression Ratio	17.0:1	Weight, dry-- kg (lb)	533 (1175)
Engine Type	In-line, 4-Cycle		

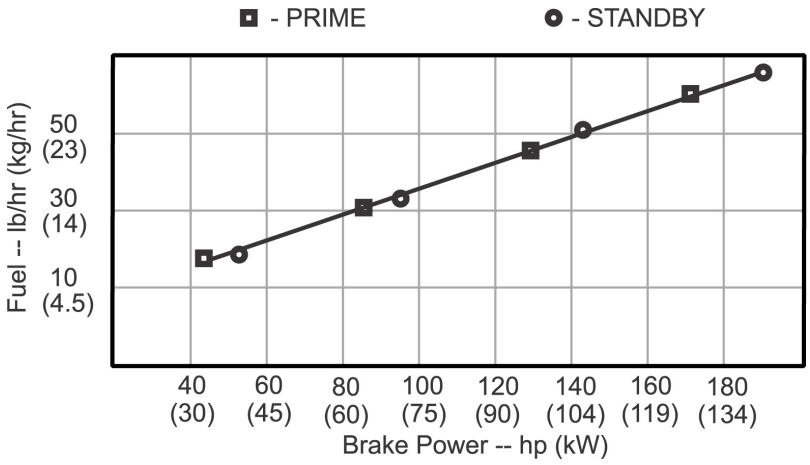
Performance data

Prime power at 60 Hz (1800 rpm)	128 kW (172 hp)
Standby power at 60 Hz (1800 rpm)	142 kW (190 hp)

The prime power gen-set engine rating is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year with normal maintenance intervals observed. This rating incorporates a 10% overload capability which is available for up to 2 hours at a time. Operating time between 100% and 110% of the prime power rating is not to exceed 8% of the total engine operating time. This rating conforms to ISO 8528-1 "prime power (PRP)". The permissible average power for the prime or PRP rating is not to exceed 70% of rated prime power when calculated per ISO 8528-1.

The standby gen-set engine rating is the nominal engine power available at varying load factors for up to 200 hours per year with normal maintenance intervals observed. No overload capability is available for this rating. This rating conforms to ISO 8528-1 "Emergency Standby Power (ESP)". The permissible average power for the standby or ESP rating is calculated per ISO 8528-1.

Performance curve



Performance data

Hz (rpm)	Generator efficiency %	Rated fan power		Power factor	Calculated generator set output			
					Prime		Standby	
		kW	hp		kWe	kVA	kWe	kVA
60 (1800)	88-92	7.1	9.5	0.8	106-111	132-139	118-124	148-155

Features and benefits

Dynamically Balanced Crankshaft

- Induction-hardened journals for long hours of reliable service
- Robust design to drive machinery from the front of the crankshaft
- Supported by five main bearings

Forged-steel Connecting Rods

- 45-degree connecting rod/cap-joint design allows the use of large connecting rod bearings for increased durability

Replaceable Wet-type Cylinder Liners

- Provide excellent heat dissipation
- Precision machined for long life
- Rebuild to original specifications

Easy to Apply, Easy to Install

- Front and rear engine mounting pads on the side of the block facilitates installation
- Auxiliary drive rated to 50 HP (37 kW) intermittent for powering ancillary equipment
- Either side service for filters and service points facilitates packaging
- All connection points in common locations make it easy to install or package

Compact Size

- High mount or low mount turbocharger position to meet packaging requirements

World-class Performance

- Excellent fuel economy and low oil consumption

Fuel System Controls

- Proven and Reliable Mechanical Governor
- 3-5% Droop Governing
- 12V or 24V Electric Shutoff

Emissions

- CARB & EPA Certified

John Deere Power Systems
3801 W. Ridgeway Ave.
PO Box 5100
Waterloo, IA 50704-5100
Phone: 1-800-533-6446
Fax: 319.292.5075

John Deere Power Systems
Usine de Saran
La Foulonnerie - B.P. 11.13
45401 Fleury les Aubrais Cedex
France
Phone: 33.2.38.82.61.19
Fax: 33.2.38.82.60.00

All values at rated speed and power with standard options unless otherwise noted. Specifications and design subject to change without notice.

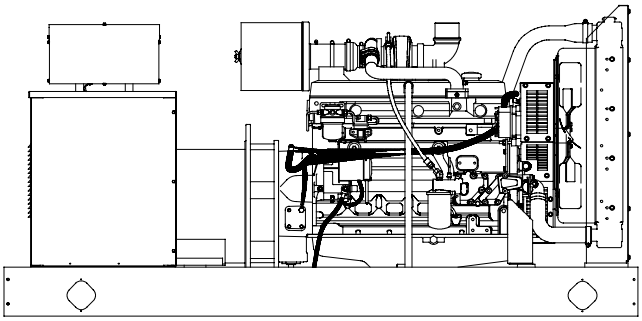
Model: 100REOZJB

KOHLER POWER SYSTEMS **190–600 V** **Diesel**

ISO 9001 KOHLER POWER SYSTEMS NATIONALLY REGISTERED

Ratings Range

		60 Hz	50 Hz
Standby:	**kW**	80–110	70–100
	kVA	80–138	70–110
Prime:	**kW**	71–100	63–90
	kVA	71–125	63–100



Generator Set Ratings

				130°C Rise Standby Rating		105°C Rise Prime Rating	
Alternator	**Voltage**	**Ph**	**Hz**	**kW/kVA**	**Amps**	**kW/kVA**	**Amps**
4S9	120/208	3	60	105/131	364	95/119	330
	127/220	3	60	105/131	344	95/119	312
	120/240	3	60	105/131	316	95/119	286
	120/240	1	60	80/80	333	71/71	296
	139/240	3	60	110/138	331	100/125	301
	220/380	3	60	88/110	167	80/100	152
	277/480	3	60	110/138	165	100/125	150
	347/600	3	60	105/131	126	95/119	114
	110/190	3	50	88/110	334	80/100	304
	115/200	3	50	88/110	318	80/100	289
	120/208	3	50	88/110	305	80/100	278
	110/220	3	50	84/105	276	76/95	249
	110/220	1	50	70/70	318	63/63	286
	220/380	3	50	88/110	167	80/100	152
	230/400	3	50	88/110	159	80/100	144
	240/416	3	50	88/110	153	80/100	139
4V11	110/220	1	50	100/100	455	90/90	409
	120/240	1	60	110/110	458	100/100	417

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A standard one-year limited warranty covers all systems and components. Two-, five-, and ten-year extended warranties are also available.
- Alternator features:
  - The unique Fast-Response™ II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
  - Kohler designed controllers for guaranteed system integration and remote communication. See Controllers on page 3.
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *Standby Ratings:* The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. *Prime Power Ratings:* At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet
Leads: quantity, type	12, Reconnectable
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	
Permanent magnet (PM) alternator	±2% Average
550 controller (with 0.5% drift due to temperature variation)	3-Phase Sensing, ±0.25%
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V, 380 V 4S9 (12 lead)	320 (60 Hz), 250 (50 Hz)
240 V, 220 V 4V11 (4 lead)	350 (60 Hz), 285 (50 Hz)

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Vacuum-impregnated windings with fungus-resistant epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.
- Fast-Response™ II brushless alternator with brushless exciter for excellent load response.

Application Data

Engine

Engine Specifications	60 Hz	50 Hz
Manufacturer	John Deere	
Engine model	6068TF250	6068TF220
Engine type	4-Cycle, Turbocharged	
Cylinder arrangement	6 Inline	
Displacement, L (cu. in.)	6.79 (414)	
Bore and stroke, mm (in.)	106 x 127 (4.19 x 5.00)	
Compression ratio	17.0:1	
Piston speed, m/min. (ft./min.)	457 (1500)	381 (1250)
Main bearings: quantity, type	7, Replaceable Insert	
Rated rpm	1800	1500
Max. power at rated rpm, kWm (BHP)	142 (190)	121 (162)
Cylinder head material	Cast Iron	
Crankshaft material	Forged Steel	
Valve material:		
Intake	Chromium-Silicon Steel	
Exhaust	Stainless Steel	
Governor: type, make/model	Mechanical, Stanadyne/DB4	
Frequency regulation, no-load to full-load	3–5%	
Frequency regulation, steady state	±0.33% (mech. governor) ±0.25% (elect. isoch. gov.)	
Frequency	Fixed	
Air cleaner type, all models	Dry	

Exhaust

Exhaust System	60 Hz	50 Hz
Exhaust manifold type	Dry	
Exhaust flow at rated kW, m^3/min. (cfm)	24.1 (850)	15.7 (553)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	567 (1052)	549 (1020)
Maximum allowable back pressure, kPa (in. Hg)	7.5 (2.2)	
Exhaust outlet size at engine hookup, mm (in.)	98 (3.86)	

Engine Electrical

Engine Electrical System (12/24 Volt*)	60 Hz	50 Hz
Battery charging alternator:	12 Volt/24 Volt	
Ground (negative/positive)	Negative	
Volts (DC)	12/24	
Ampere rating	55/45	
Starter motor rated voltage (DC)	12/24	
Battery, recommended cold cranking amps (CCA):	12 Volt/24 Volt	
Quantity, CCA rating each	One, 800/Two, 570	
Battery voltage (DC)	12	

*12-volt or 24-volt engine electrical systems are available.

Fuel

Fuel System	60 Hz	50 Hz
Fuel supply line, min. ID, mm (in.)	11.0 (0.44)	
Fuel return line, min. ID, mm (in.)	6.0 (0.25)	
Max. lift, fuel pump: type, m (ft.)	Engine-Driven, 1.8 (6.0)	
Max. fuel flow, Lph (gph)	113 (29.9)	109 (28.9)
Fuel prime pump	Manual	
Fuel filter		
Secondary	8 Microns @ 98% Efficiency	
Water Separator	Yes	
Recommended fuel	#2 Diesel	

Lubrication

Lubricating System	60 Hz	50 Hz
Type	Full Pressure	
Oil pan capacity, L (qt.)	19.0 (20.1)	
Oil pan capacity with filter, L (qt.)	19.9 (21.0)	
Oil filter: quantity, type	1, Cartridge	
Oil cooler	Water-Cooled	

Application Data

Cooling

Radiator System	60 Hz	50 Hz
Ambient temperature, °C (°F)	50 (122)	
Engine jacket water capacity, L (gal.)	11.3 (3.0)	
Radiator system capacity, including engine, L (gal.)	23 (6.1)	
Engine jacket water flow, Lpm (gpm)	186 (49)	159 (42)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	67.4 (3836)	57.7 (3286)
Water pump type	Centrifugal	
Fan diameter, including blades, mm (in.)	600 (24)	
Fan, kWm (HP)	4.2 (5.6)	2.6 (3.5)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)	

Remote Radiator System†	60 Hz	50 Hz
Exhaust manifold type	Dry	
Connection sizes:		
Water inlet, ID hose, mm (in.)	51 (2.0)	
Water outlet, ID hose, mm (in.)	64 (2.5)	
Static head allowable above engine, kPa (ft. H_2O)	63 (21)	

† Contact your local distributor for cooling system options and specifications based on your specific application.

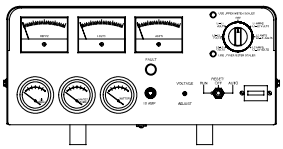
Operation Requirements

Air Requirements	60 Hz	50 Hz
Radiator-cooled cooling air, m^3/min. (scfm)‡	178 (6300)	133 (4700)
Cooling air required for generator set when equipped with city water cooling or remote radiator, based on 14°C (25°F) rise, m^3/min. (scfm)‡	142 (5000)	122 (4300)
Combustion air, m^3/min. (cfm)	8.6 (302)	6.3 (222)
Heat rejected to ambient air:		
Engine, kW (Btu/min.)	25.9 (1474)	20.5 (1167)
Alternator, kW (Btu/min.)	13.7 (780)	13.4 (760)

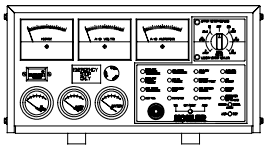
‡ Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

Fuel Consumption	60 Hz		50 Hz	
Diesel, Lph (gph) at % load	**Standby Rating**			
100%	32.2	(8.5)	25.4	(6.7)
75%	24.2	(6.4)	18.9	(5.0)
50%	16.3	(4.3)	12.9	(3.4)
25%	9.8	(2.6)	7.6	(2.0)
Diesel, Lph (gph) at % load	**Prime Rating**			
100%	29.1	(7.7)	22.7	(6.0)
75%	22.3	(5.9)	17.4	(4.6)
50%	14.7	(3.9)	12.1	(3.2)
25%	9.1	(2.4)	6.0	(1.8)

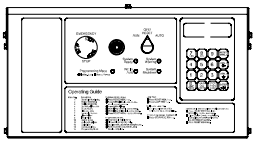
Controllers



Decision-Maker® 1 Controller
Single-light annunciation and basic controls with NFPA capability.
Relay logic, AC meters, and engine gauge features.
12-volt engine electrical system capability only.
Remote or automatic start options.
Refer to G6-29 for additional controller features and accessories.
Note: Not available with 600-volt alternator.



Decision-Maker® 3+, 16-Light Controller
Audiovisual annunciation with NFPA 110 Level 1 capability.
Microprocessor logic, AC meters, and engine gauge features.
12- or 24-volt engine electrical system capability.
Remote start, prime power, and remote annunciation options.
Refer to G6-30 for additional controller features and accessories.



Decision-Maker® 550 Controller
Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities.

- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-46 for additional controller features and accessories.

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the
US and Canada, phone 1-800-544-2444
KohlerPower.com

Kohler Power Systems
Asia Pacific Headquarters
7 Jurong Pier Road
Singapore 619159
Phone (65) 6264-6422, Fax (65) 6264-6455

Standard Features

- Alternator Protection (standard with Decision-Maker® 550 controller)
- Battery Rack and Cables
- Integral Vibration Isolation
- Local Emergency Stop Switch (standard with Decision-Maker® 550)
- Low Coolant Level Shutdown
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Approvals and Listings

❑ CSA Approval

Enclosed Unit

❑ Sound Enclosure (with enclosed critical silencer)
❑ Weather Enclosure (with enclosed critical silencer)
❑ Weather Housing (with roof-mounted critical silencer)

Open Unit

❑ Exhaust Silencer, Critical (kit: PA-354809)
❑ Exhaust Silencer, Hospital (kit: PA-365349)
❑ Flexible Exhaust Connector, Stainless Steel

Fuel System

❑ Auxiliary Fuel Pump
❑ Flexible Fuel Lines
❑ Fuel Pressure Gauge
❑ Subbase Fuel Tanks

Controller (Decision-Maker® 3+ and 550 Controllers)

❑ Common Failure Relay
❑ Communication Products and PC Software (Decision-Maker® 550 controller only)
❑ Customer Connection
❑ Dry Contact (isolated alarm)
❑ Engine Prealarm Senders (Decision-Maker® 3+ controller only)
❑ Local Emergency Stop Switch (Decision-Maker® 3+ controller only)
❑ Prime Power Switch (Decision-Maker® 550 controller only)
❑ Remote Audiovisual Alarm Panel
❑ Remote Emergency Stop
❑ Remote Mounting Cable
❑ Remote Serial Annunciator Panel
❑ Run Relay

Cooling System

❑ Block Heater, 1500 W, 110–120V, 1 Ph
❑ Block Heater, 1500 W, 190–240 V, 1 Ph (recommended for ambient temperatures below 0°C [32°F])
❑ Radiator Duct Flange
❑ Remote Radiator Setup

Electrical System

❑ Alternator Strip Heater
❑ Battery
❑ Battery Charger, Equalize/Float Type
❑ Battery Heater
❑ Line Circuit Breaker (NEMA type 1 enclosure)
❑ Line Circuit Breaker with Shunt Trip (NEMA type 1 enclosure)
❑ Safeguard Breaker (not available with Decision-Maker® 550 controller)

Paralleling System

❑ Reactive Droop Compensator (Decision-Maker® 3+ controller)
❑ Remote Speed Adjust Control
❑ Remote Voltage Adjust Control
❑ Voltage Regulator Relocation (Decision-Maker® 3+ controller)

Miscellaneous

❑ Air Cleaner, Heavy Duty
❑ Air Cleaner Restriction Indicator
❑ Bus Bar
❑ Closed Crankcase Vent
❑ Electronic Isochronous Governor (±0.25% freq. reg. steady state)
❑ Engine Fluids Added
❑ Rated Power Factor Testing
❑ Rodent Guards
❑ Skid End Caps

Literature

❑ General Maintenance Literature
❑ NFPA 110 Literature
❑ Overhaul Literature
❑ Production Literature

Warranty

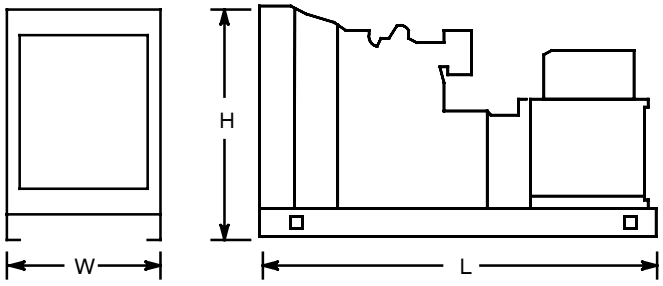
❑ 2-Year Basic
❑ 2-Year Prime
❑ 5-Year Basic
❑ 5-Year Comprehensive
❑ 10-Year Major Components

Miscellaneous Accessories

❑ _____
❑ _____

Dimensions and Weights

Overall Size, L x W x H, mm (in.):
Wide Skid: 2600 x 1040 x 1274 (102.36 x 40.94 x 50.15)
Narrow Skid: 2600 x 864 x 1274 (102.36 x 34.02 x 50.15)
Weight (radiator model), wet, kg (lb.): 1210–1320 (2660–2900)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

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GEN SET PACKAGE PERFORMANCE DATA [EPS00001]

JULY 09, 2013

(EPS00923)-ENGINE (B8D01036)-GENSET (6YR03128)-GENERATOR

For Help Desk Phone Numbers Click here

Performance Number: DM6437 **Change Level:** 00

Sales Model: 3306BDITA	**Combustion:** DI	**Aspr:** TA
Engine Power: 230 W/F EKW 241 W/O F EKW 349 HP	**Speed:** 1,800 RPM	**After Cooler:** JWAC
Manifold Type: DRY	**Governor Type:** HYDRA	**After Cooler Temp(F):** --
Turbo Quantity: 1	**Engine App:** GP	**Turbo Arrangement:**
Hertz: 60	**Application Type:** PACKAGE-DIE	**Engine Rating:** PGS **Strategy:**
Rating Type: STANDBY	**Certification:** N-C - 1970 - 2100	

EMISSIONS DATA

N-C - 1970 - 2100 ********** N1
Non-Certified: This engine rating is not emission certified by any domestic or foreign agency.

REFERENCE EXHAUST STACK DIAMETER	5 IN
WET EXHAUST MASS	3,220.9 LB/HR
WET EXHAUST FLOW (1,031.00 F STACK TEMP)	2,057.79 CFM
WET EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)	657.00 STD CFM
DRY EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)	602.12 STD CFM
FUEL FLOW RATE	18 GAL/HR

RATED SPEED "Potential site variation"

GEN PWR EKW	PERCENT LOAD	ENGINE POWER BHP	TOTAL NOX (AS NO2) LB/HR	TOTAL CO LB/HR	TOTAL HC LB/HR	PART MATTER LB/HR	OXYGEN IN EXHAUST PERCENT
230	100	349	4.3300	1.0700	.1500	.1800	9.4000
172.5	75	268	3.8300	.2900	.1500	.0700	10.5000
115	50	183	2.8800	.2500	.1600	.0600	11.5000
57.5	25	100	1.5700	.3700	.1500	.0600	13.4000
23	10	49	.7900	.4900	.1500	.0500	15.6000

RATED SPEED "Nominal Data"

GEN PWR EKW	PERCENT LOAD	ENGINE POWER BHP	TOTAL NOX (AS NO2) LB/HR	TOTAL CO LB/HR	TOTAL HC LB/HR	TOTAL CO2 LB/HR	PART MATTER LB/HR	OXYGEN IN EXHAUST PERCENT
230	100	349	3.6700	.5900	.1100	423.6	.1200	9.4000
172.5	75	268	3.2400	.1600	.1100	309	.0500	10.5000
115	50	183	2.4400	.1400	.1200	211	.0400	11.5000
57.5	25	100	1.3300	.2100	.1100	126.8	.0400	13.4000
23	10	49	.6700	.2700	.1100	76.8	.0300	15.6000

ATTACHMENT M
AIR POLLUTION CONTROL DATA SHEET

There are no air pollution control devices associated with the three diesel-fired emergency generators. Therefore, Attachment M is not applicable to this NSR permit application.

ATTACHMENT N
SUPPORTING EMISSIONS CALCULATIONS

Emission Calculations for Diesel Generators < 600 HP
Plateau Medical Center

Emission Calculations for Diesel Generators < 600 HP

Emission Unit	Generating Unit	Gross Engine Power Output		Oil Firing Rate (gal/hr)
		(kw)	(hp)	
EG-1	Perkins 1106D-E66TA	172	230	10.7
EG-2	Caterpillar 3306BDITA	260	349	17.8
EG-3	John Deere 6068TF250	142	190	8.5
Total:		**574**	**769**	

Heat content of fuel -	140,000	BTU/gal
Sulfur content of fuel -	0.50	wt%

Emission Factors for Tier 3 Certified Engines between 130-225 kW from 40 CFR 89.112

Constituent	Emission Factor (g/kW-hr)	Emission Factor (lb/hp-hr)
CO	3.5	0.006
NOx*	3.80	0.006
PM-10	0.20	0.0003
VOC*	0.20	0.0003

* The NMHC+NOx Tier 2 emission standard has been divided into 95% NOx and 5% VOC

Emission Factors for Criteria Pollutants, from AP-42, Section 3.4. Tables 3.4-1 and 3.4-2

Constituent	Emission Factor (g/kW-hr)	Emission Factor (lb/hp-hr)
SO_2*	2.46	0.004

* Sulfur content is < 0.5%, per the SDS

Emission Factors for Tier 2 Certified Engines between 225-450 kW from 40 CFR 89.112

Constituent	Emission Factor (g/kW-hr)	Emission Factor (lb/hp-hr)
CO	3.5	0.006
NOx*	6.08	0.010
PM-10	0.20	0.0003
VOC*	0.32	0.001

* The NMHC+NOx Tier 2 emission standard has been divided into 95% NOx and 5% VOC

Emission Factors for Tier 1 Certified Engines between 130-225 kW from 40 CFR 89.112

Constituent	Emission Factor (g/kW-hr)	Emission Factor (lb/hp-hr)
CO	11.4	0.019
NOx	9.2	0.015
PM-10	0.54	0.0009
VOC	1.3	0.002

GHG Emission factors, from Table C-1 and C-2 to Subpart C of 40 CFR 98

Constituent	Emission Factor	
CO_2	73.96	kg/MMBtu
CH_4	3.0E-03	kg/MMBtu
N_2O	6.0E-04	kg/MMBtu

Calculation of Criteria Pollutant Emissions

Constituent	EG-1 Hourly PTE (lb/hr)	EG-1 Annual Restricted Potential to Emit[1] TPY	EG-1 Annual Unrestricted Potential to Emit TPY
CO	1.32	0.33	5.8
NOx	1.44	0.36	6.3
PM-10	0.08	0.02	0.3
SO_2	0.93	0.23	4.1
VOC	0.08	0.02	0.3
CO_2	244.30	61.07	1,070.0
CH_4	0.01	2.48E-03	0.04
N_2O	0.002	4.95E-04	0.01

(1) Annual potential to emit is based on 500 hr/yr for emergency generators.

Constituent	EG-2 Hourly PTE (lb/hr)	EG-2 Annual Restricted Potential to Emit[1] TPY	EG-2 Annual Unrestricted Potential to Emit TPY
CO	2.01	0.50	8.8
NOx	3.49	0.87	15.3
PM-10	0.11	0.03	0.5
SO_2	1.41	0.35	6.2
VOC	0.18	0.05	0.8
CO_2	406.40	101.60	1,780.0
CH_4	0.02	4.12E-03	0.07
N_2O	0.003	8.24E-04	0.01

(1) Annual potential to emit is based on 500 hr/yr for emergency generators.

Emission Calculations for Diesel Generators < 600 HP
Plateau Medical Center

Constituent	EG-3 Hourly PTE (lb/hr)	EG-3 Annual Restricted Potential to Emit[1] TPY	EG-3 Annual Unrestricted Potential to Emit TPY
CO	3.57	0.89	15.6
NOx	2.88	0.72	12.6
PM-10	0.17	0.04	0.7
SO_2	0.77	0.19	3.4
VOC	0.41	0.10	1.8
CO_2	194.07	48.52	850.0
CH_4	0.01	1.97E-03	0.03
N_2O	0.002	3.94E-04	0.01

(1) Annual potential to emit is based on 500 hr/yr for emergency generators.

Calculation of Hourly PTE:
Emission Factor (lb/hp-hr) x Generator Rating (hp) = Emissions (lb/hr)
Emission Factor (kg/mmBtu) x 2.205 lb/kg x Heat Content of Fuel (mmBtu/gal) x Oil Firing Rate (gal/hr) = Emissions (lb/hr)

Calculation of Annual Restricted PTE:
Hourly PTE (lb/hr) x 500 hr/yr = Emissions (lb/hr)

Calculation of Annual Unrestricted PTE:
Hourly PTE (lb/hr) x 8,760 hr/yr = Emissions (lb/hr)

Calculation of HAP Emissions
HAP constituent emission factors obtained from AP-42, Section 3.4, Table 3.4-3

Constituent	Emission Factor (lb/MMBtu)	EG1: Hourly PTE (lb/hr)	EG1 Annual Restricted Potential to Emit[1] TPY	EG1 Annual Unrestricted Potential to Emit TPY
Acetaldehyde	2.52E-05	3.77E-05	9.44E-06	1.65E-04
Acrolein	7.88E-06	1.18E-05	2.95E-06	5.17E-05
Benzene	7.76E-04	1.16E-03	2.91E-04	5.09E-03
Formaldehyde	7.89E-05	1.18E-04	2.95E-05	5.18E-04
Naphthalene	1.30E-04	1.95E-04	4.87E-05	8.53E-04
Toluene	2.81E-04	4.21E-04	1.05E-04	1.84E-03
Xylenes	1.93E-04	2.89E-04	7.23E-05	1.27E-03
Total:		**0.002**	**0.001**	**0.01**

[1] Annual restricted potential to emit is based on 500 hr/yr for emergency generators.

Constituent	Emission Factor (lb/MMBtu)	EG2: Hourly PTE (lb/hr)	EG2 Annual Restricted Potential to Emit[1] TPY	EG2 Annual Unrestricted Potential to Emit TPY
Acetaldehyde	2.52E-05	6.28E-05	1.57E-05	2.75E-04
Acrolein	7.88E-06	1.96E-05	4.91E-06	8.60E-05
Benzene	7.76E-04	1.93E-03	4.83E-04	8.47E-03
Formaldehyde	7.89E-05	1.97E-04	4.92E-05	8.61E-04
Naphthalene	1.30E-04	3.24E-04	8.10E-05	1.42E-03
Toluene	2.81E-04	7.00E-04	1.75E-04	3.07E-03
Xylenes	1.93E-04	4.81E-04	1.20E-04	2.11E-03
Total:		**0.004**	**0.001**	**0.02**

[1] Annual restricted potential to emit is based on 500 hr/yr for emergency generators.

Constituent	Emission Factor (lb/MMBtu)	EG3: Hourly PTE (lb/hr)	EG3 Annual Restricted Potential to Emit[1] TPY	EG3 Annual Unrestricted Potential to Emit TPY
Acetaldehyde	2.52E-05	3.00E-05	7.50E-06	1.31E-04
Acrolein	7.88E-06	9.38E-06	2.34E-06	4.11E-05
Benzene	7.76E-04	9.23E-04	2.31E-04	4.04E-03
Formaldehyde	7.89E-05	9.39E-05	2.35E-05	4.11E-04
Naphthalene	1.30E-04	1.55E-04	3.87E-05	6.78E-04
Toluene	2.81E-04	3.34E-04	8.36E-05	1.46E-03
Xylenes	1.93E-04	2.30E-04	5.74E-05	1.01E-03
Total:		**0.002**	**0.0004**	**0.01**

[1] Annual restricted potential to emit is based on 500 hr/yr for emergency generators.

Calculation of Hourly PTE:
Emission Factor (lb/MMBtu) x Heat Content of Fuel (MMBtu/gal) x Fuel Firing Rate (gal/hr) = Emissions (lb/hr)

Calculation of Annual Restricted PTE:
Hourly PTE (lb/hr) x 500 hr/yr = Emissions (lb/hr)

Calculation of Annual Unrestricted PTE:
Hourly PTE (lb/hr) x 8,760 hr/yr = Emissions (lb/hr)

Summary of Stationary Source Potential Emissions Plateau Medical Center							
	Annual Potential Emissions[1] (tons/yr)						
Activities	**CO**	**NOx**	**PM**	**SO_2**	**VOCs**	**HAPs**	**CO_{2e}**
Combustion Sources							
EG-1	0.33	0.36	0.02	0.23	0.02	0.001	62.1
EG-2	0.50	0.87	0.03	0.35	0.05	0.001	103.4
EG-3	0.89	0.72	0.04	0.19	0.10	0.0004	48.7
Total, Stationary Sources, ton/yr	**1.72**	**1.95**	**0.09**	**0.78**	**0.17**	**0.002**	**214.2**

[1] Potential emissions are based on 500 hours per year for the emergency generator

ATTACHMENT O
MONITORING/RECORDKEEPING/REPORTING/TESTING PLANS

See information provided in the emergency generator emission sheets located in Attachment L.

ATTACHMENT P
PUBLIC NOTICE

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Plateau Medical Center has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a General Permit Registration for three existing emergency generators located on 430 Main Street in Oak Hill, in Fayette County, West Virginia. The latitude and longitude coordinates are 37.972 ^{o}N and -81.150 ^{o}E.

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be: 2.0 tons per year nitrogen oxides, 1.7 tons per year carbon monoxide, 214.2 tons per year carbon dioxide equivalent emissions, 0.2 tons per year volatile organic compounds, 0.1 tons per year particulate matter, 0.8 tons per year sulfur dioxide, and 0.002 tons per year hazardous air pollutants.

Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the Division of Air Quality at (304) 926-0499, extension 1227, during normal business hours.

Dated this the 23th day of July 2015

By: Plateau Medical Center
Dennis Smith
Interim Plant Operations Director
430 Main Street
Oak Hill, West Virginia 25901

ATTACHMENT Q
BUSINESS CONFIDENTIAL CLAIMS

This permit application does not contain business confidential information. Therefore, Attachment Q is not applicable to this NSR permit application.

ATTACHMENT R
AUTHORITY FORMS

This NSR application has been signed by Plateau Medical Center's Responsible Official. Therefore, Attachment R is not applicable to this NSR permit application.

ATTACHMENT S
TITLE V PERMIT REVISION INFORMATION

Plateau Medical Center is not subject to the Title V Operating Permit program. Therefore, Attachment S is not applicable to this NSR permit application.