



DEPARTMENT OF VETERANS AFFAIRS
Medical Center
Huntington, WV 25704

March 30, 2015

In Reply Refer To: 581/EGen-Trailers

Assistant Director for Permitting
WV DEP/Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

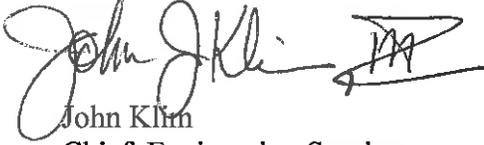


SUBJ: SUBJ: Bldg. 52 Modification
Plant ID No. 099 00007

1. The Huntington VA Medical Center respectfully requests a modification to its Reg. 13 permit (#2290 K). The facility wishes to replace a 600 KW emergency generator, installed in 1987, with a Tier 2 compliant Caterpillar C18-600KW emergency generator which will be run on Ultra Low Sulfur Diesel fuel (ULSD). We respectfully request the hours of operation be limited to 500 per year, which coincides with the other emergency generators we currently have on our Reg. 13 permit.
2. Please find enclosed the following:
 - *Application for NSR Permit & Title V Permit Revision*
 - *Attachment I- Emission Units Table*
 - *Attachment J - Emission Points Summary Sheets*
 - *Attachment R – Authority of Governmental Agency*
 - *Equipment Listing*
 - *Copy of the legal ad to be run in the Huntington Herald Dispatch*
 - *2015 EPA Certificate of Conformity .*
 - *Map Location*
 - *Emergency Generator Technical Data Sheet*
 - *Emissions Calculation*
 - *G60 –C form (p 15-21)*
 - *A check for \$2000.00 to cover administrative fees*
3. The “Certificate of Affidavit” for the legal ad will be forward to your office once received from the Herald Dispatch.

4. Should you have any questions or require additional information, please contact Paul Myers, GEMS Coordinator, at (304) 429-6755 Ext. 2379.

Respectfully

A handwritten signature in black ink, appearing to read "John Klim". The signature is stylized with a large initial "J" and a horizontal line extending to the right.

John Klim
Chief, Engineering Service



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): VA Medical Center – Huntington		2. Federal Employer ID No. (FEIN): 55-0357745	
3. Name of facility (if different from above):		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input type="checkbox"/> BOTH	
5A. Applicant's mailing address: 1540 Spring Valley Drive, Huntington, WV 25704		5B. Facility's present physical address: 1540 Spring Valley Drive, Huntington, WV 25704	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input type="checkbox"/> YES <input type="checkbox"/> 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:			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the proposed site? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES, please explain: Federal facility – 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.): Replacement of a 600 Kw emergency generator installed in 1987 with a Caterpillar C18-600 Tier 2 complaint emergency generator		10. North American Industry Classification System (NAICS) code for the facility: 62211	
11A. DAQ Plant ID No. (for existing facilities only): 099-00007		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-2290 Rev K	

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

<p>12A.</p> <ul style="list-style-type: none"> For Modifications, Administrative Updates or Temporary permits at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road; For Construction or Relocation permits, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a MAP as Attachment B. <p>From Huntington, WV – Rt. 60 W to Carson Street. Left on Carson St to Spring Valley Dr. Turn right and proceed to VA entrance</p>								
12.B. New site address (if applicable):	12C. Nearest city or town:	12D. County:						
12.E. UTM Northing (KM): 42448491.68633	12F. UTM Easting (KM): 367444.96508	12G. UTM Zone: 17						
<p>13. Briefly describe the proposed change(s) at the facility: Replacement of a 600 Kw emergency generator installed in 1987 with a Caterpillar C18-600 Tier 2 complaint emergency generator</p>								
<p>14A. Provide the date of anticipated installation or change: 06/01/2015</p> <ul style="list-style-type: none"> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: / / 		<p>14B. Date of anticipated Start-Up if a permit is granted: 09/01/2015</p>						
<p>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).</p>								
<p>15. Provide maximum projected Operating Schedule of activity/activities outlined in this application:</p> <table border="0"> <tr> <td style="text-align: center;">Hours Per Day</td> <td style="text-align: center;">Days Per Week</td> <td style="text-align: center;">Weeks Per Year</td> </tr> <tr> <td></td> <td style="text-align: center;">*****</td> <td style="text-align: center;">LESS THAN 500 HOURS PER YEAR</td> </tr> </table>			Hours Per Day	Days Per Week	Weeks Per Year		*****	LESS THAN 500 HOURS PER YEAR
Hours Per Day	Days Per Week	Weeks Per Year						
	*****	LESS THAN 500 HOURS PER YEAR						
<p>16. Is demolition or physical renovation at an existing facility involved? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>								
<p>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.</p>								
<p>18. Regulatory Discussion. List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (<i>if known</i>). 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 (<i>if known</i>). Provide this information as Attachment D.</p>								
<p>Section II. Additional attachments and supporting documents.</p>								
<p>19. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).</p>								
<p>20. Include a Table of Contents as the first page of your application package.</p>								
<p>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).</p> <ul style="list-style-type: none"> Indicate the location of the nearest occupied structure (e.g. church, school, business, residence). 								
<p>22. Provide a Detailed Process Flow Diagram(s) showing each proposed or modified emissions unit, emission point and control device as Attachment F.</p>								
<p>23. Provide a Process Description as Attachment G.</p> <ul style="list-style-type: none"> Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable). 								
<p><i>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</i></p>								

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:

- | | | |
|----------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------|
| <input type="checkbox"/> Bulk Liquid Transfer Operations | <input type="checkbox"/> Haul Road Emissions | <input type="checkbox"/> Quarry |
| <input type="checkbox"/> Chemical Processes | <input type="checkbox"/> Hot Mix Asphalt Plant | <input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities |
| <input type="checkbox"/> Concrete Batch Plant | <input type="checkbox"/> Incinerator | <input type="checkbox"/> Storage Tanks |
| <input type="checkbox"/> Grey Iron and Steel Foundry | <input type="checkbox"/> Indirect Heat Exchanger | |
- X General Emission Unit, specify Tier 3 100 Kw 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:

- | | | |
|---------------------------------------------|-----------------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> Absorption Systems | <input type="checkbox"/> Baghouse | <input type="checkbox"/> Flare |
| <input type="checkbox"/> Adsorption Systems | <input type="checkbox"/> Condenser | <input type="checkbox"/> Mechanical Collector |
| <input type="checkbox"/> Afterburner | <input type="checkbox"/> Electrostatic Precipitator | <input type="checkbox"/> 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 X 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:

- | | |
|----------------------------------------------------------------------------|-----------------------------------------------------------|
| <input type="checkbox"/> Authority of Corporation or Other Business Entity | <input type="checkbox"/> Authority of Partnership |
| <input type="checkbox"/> Authority of Governmental Agency | <input type="checkbox"/> 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.

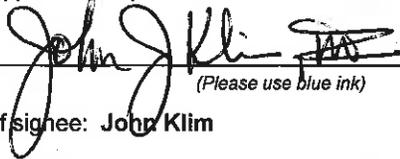
Certification of Truth, Accuracy, and Completeness

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 _____


(Please use blue ink)

DATE: _____

April 13, 2015
(Please use blue ink)

35B. Printed name of signee: **John Klim**

35C. Title: **Chief, Engineering Service**

35D. E-mail: **John.Klim,@va.gov**

36E. Phone: **304 429-6755 Ext 2374**

36F. FAX: **304 429-7597**

36A. Printed name of contact person (if different from above): **Paul Myers**

36B. Title: **GEMS Coordinator**

36C. E-mail: **Paul.Myers@va.gov**

36D. Phone: **304 429-6755 Ext 2379**

36E. FAX: **304 429-7597**

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <input type="checkbox"/> Attachment A: Business Certificate | <input type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input type="checkbox"/> Attachment B: Map(s) | <input type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input type="checkbox"/> Attachment D: Regulatory Discussion | <input type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input type="checkbox"/> Attachment E: Plot Plan | <input type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input type="checkbox"/> Attachment P: Public Notice |
| <input type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input type="checkbox"/> 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 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 Uncontrolled Emissions ⁴		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
E-Gen Bldg. 52 (600 kW)	Bldg. 52			N/A				NOx CO PM	11.4 0.91 0.06	2.85 0.228 0.015	51.2 4.08 0.266				

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.

- Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- 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).
- List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.
- 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).
- Give maximum potential emission 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).
- 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).
- 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/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

Attachment R
AUTHORITY OF GOVERNMENTAL AGENCY

TO: The West Virginia Department of Environmental Protection,
Division of Air Quality

DATE: April 13, 2015

ATTN: Director

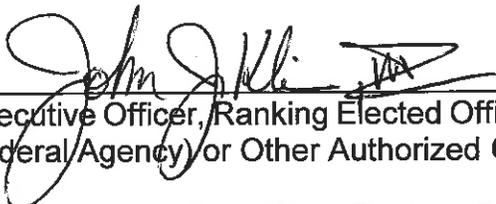
Agency's Federal Employer I.D. Number 55-0357745

The undersigned hereby files with the West Virginia Department of Environmental Protection, Division of Air Quality, a permit application.

Further, the agency certifies as follows:

(1) John Klim is the chief executive officer, a ranking elected official, or an authorized representative and in that capacity may represent the interests of the agency and may obligate and legally bind the agency. (In the case of a federal agency, "chief executive officer" includes the head of geographical area having responsibility for the overall operations of a principal geographic unit of the agency.)

(2) If the agency changes its authorized representatives then the agency shall notify the Director of the West Virginia Department of Environmental Protection, Division of Air Quality, immediately upon such change.



Chief Executive Officer, Ranking Elected Official, a Head of Geographical Area
(for a Federal Agency) or Other Authorized Officer

(If not the Chief Executive Officer, Ranking Elected Official or a Head of Geographical Area (for a Federal Agency), then the agency must submit a Resolution or other legal document stating legal authority of other authorized officer to bind the agency.)

Department of Veterans Affairs Medical Center - Huntington

Governmental Agency Name

**AIR QUALITY
PERMIT NOTICE**

Notice of Application

Notice is given that the Department of Veterans Affairs Medical Center -Huntington has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a modification to its Reg. 13 permit (#2290), located at 1540 Spring Valley Drive in Wayne County West Virginia. The facility plans to replace a 600 KW emergency generator, installed in 1987, with a Tier 2 compliant, Caterpillar C18-600 KW emergency generator. The latitude and longitude coordinates are: 82.5167 W and 38.3778N respectively.

The applicant estimates potential air emission discharges of the following Regulated Air Pollutants to be: Nitrogen Oxide (NOx) +HC = 2.8 TPY; CO = 0.22TPY; PM = 0.014TPY

Installation is expected to start June 1, 2015 with a final startup planned to begin on or about September 1, 2015. 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 DAQ at (304) 926-0499, extension 1227, during normal business hours.

Dated this the 14th day of April, 2015.

By: Department of
Veterans Affairs
Medical Center
J. Brian Nimmo
Medical Center
Director
1540 Spring Valley Dr
Huntington, WV 25704

**LH-31054
4-14-21; 2015**

Acc.Id: 13000
Name: VETERANS ADMIN. HOSPITAL
Phone: 304-429-6741
Address: 1540 SPRING VALLEY DR
City: HUNTINGTON
State: WV
Postcode: 25704
Class: 9010 **Legal Notices**
Edition: HD
Start: 04/14/2015
Stop: 04/14/2015
Issues: 1
Units: 81.00
Order ID: HC 31054
TFN: C
TFN cycle:
Rep: CRAPPOLD
Status: CF
Source: EM
Paytype: BI
Rate: LG
Cost EXC: 56.70
GST:
Tax: 0.00
Total Charge: 56.70
Printed on: 04/13/2015 11:04:44
Printed by: CRAPPOLD

Myers, Paul

From: crappold@heralddispatch.com
Sent: Monday, April 13, 2015 11:05 AM
To: Myers, Paul
Subject: [EXTERNAL] Herald Dispatch Ad Confirmation

I have attached a copy of your legal ad scheduled to publish April 14th. Please feel free to contact me with any questions.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2015 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT OF 1990**

**OFFICE OF TRANSPORTATION
AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105**

Certificate Issued To: Caterpillar Inc.
(U.S. Manufacturer or Importer)
Certificate Number: FCPXL18.INYS-003

Effective Date:
07/01/2014
Expiration Date:
12/31/2015


Byron J. Bunker, Division Director
Compliance Division

Issue Date:
07/01/2014
Revision Date:
N/A

Model Year: 2015
Manufacturer Type: Original Engine Manufacturer
Engine Family: FCPXL18.INYS

Mobile/Stationary Indicator: Stationary
Emissions Power Category: 560-kW<=2237
Fuel Type: Diesel
After Treatment Devices: No After Treatment Devices Installed
Non-after Treatment Devices: Electronic Control, Engine Design Modification

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Part 60, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and produced in the stated model year.

This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 106.8 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 60. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Part 60.

This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.



DIESEL GENERATOR SET



Image shown may not reflect actual package.

STANDBY 600 ekW 750 kVA 60 Hz 1800 rpm 480 Volts

Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.

FEATURES

FUEL/EMISSIONS STRATEGY

- EPA Certified for Stationary Emergency Application (EPA Tier 2 emissions levels)

DESIGN CRITERIA

- The generator set accepts 100% rated load in one step per NFPA 110 and meets ISO 8528-5 transient response

UL 2200 / CSA – Optional

- UL 2200 Listed packages
- CSA Certified

Certain restrictions may apply.
Consult with your Cat® Dealer.

FULL RANGE OF ATTACHMENTS

- Wide range of bolt-on system expansion attachments, factory designed and tested
- Flexible packaging options for easy and cost effective installation

SINGLE-SOURCE SUPPLIER

- Fully prototype tested with certified torsional vibration analysis available

WORLDWIDE PRODUCT SUPPORT

- Cat dealers provide extensive post sale support including maintenance and repair agreements
- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- The Cat S•O•SSM program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

CAT C18 ATAAC DIESEL ENGINE

- Utilizes ACERT™ Technology
- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Four-stroke-cycle diesel engine combines consistent performance and excellent fuel economy with minimum weight
- Electronic controlled governor

CAT GENERATOR

- Matched to the performance and output characteristics of Cat engines
- UL 1446 Recognized Class H insulation
- CSA Certified

CAT EMCP 4 CONTROL PANELS

- Simple user friendly interface and navigation
- Scalable system to meet a wide range of customer needs
- Integrated Control System and Communications Gateway
- Integrated Voltage Regulation

SEISMIC CERTIFICATION

- Seismic Certification available
- Anchoring details are site specific, and are dependent on many factors such as generator set size, weight, and concrete strength.

IBC Certification requires that the anchoring system used is reviewed and approved by a Professional Engineer

- Seismic Certification per Applicable Building Codes: IBC 2000, IBC 2003, IBC 2006, IBC 2009, IBC 2012, CBC 2007, CBC 2010

STANDBY 600 ekW 750 kVA
60 Hz 1800 rpm 480 Volts



FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
Air Inlet	<ul style="list-style-type: none"> • Disposable air filter 	<input type="checkbox"/> Canister type, dual element <input type="checkbox"/> Heavy duty air cleaner
Cooling	<ul style="list-style-type: none"> • Package mounted radiator 	
Exhaust	<ul style="list-style-type: none"> • Exhaust flange outlet 	<input type="checkbox"/> Industrial <input type="checkbox"/> Residential / Critical
Fuel	<ul style="list-style-type: none"> • Primary fuel filter with integral water separator • Secondary fuel filters • Fuel priming pump 	
Generator	<ul style="list-style-type: none"> • Matched to the performance and output characteristics of Cat engines • Internal excitation (IE) • IP23 Protection 	<input type="checkbox"/> Permanent magnet excitation (PMG) <input type="checkbox"/> Anti-condensation space heater <input type="checkbox"/> Coastal insulation protection
Power Termination	<ul style="list-style-type: none"> • Power terminal strips 	<input type="checkbox"/> Circuit breakers – 100% rated assembly, UL Listed <input type="checkbox"/> SUSE (Suitable for use as service equipment)
Control Panels	<ul style="list-style-type: none"> • EMCP 4.2 	<input type="checkbox"/> EMCP 4.3 <input type="checkbox"/> EMCP 4.4 <input type="checkbox"/> Local and remote annunciator modules <input type="checkbox"/> Remote monitoring software
Mounting	<ul style="list-style-type: none"> • Rubber vibration isolators 	
Starting/Charging	<ul style="list-style-type: none"> • 24 volt starting motor & charging alternator • Batteries 	<input type="checkbox"/> Battery chargers <input type="checkbox"/> Oversize batteries <input type="checkbox"/> Jacket water heater
General	<ul style="list-style-type: none"> • Paint - Caterpillar Yellow except rails and radiators gloss black • Narrow skid base 	<p>The following options are based on regional and product configuration:</p> <input type="checkbox"/> Seismic Certification per Applicable Building Codes IBC 2000, IBC 2003, IBC 2006, IBC 2009, IBC 2012, CBC 2007, CBC 2010 <input type="checkbox"/> UL 2200 Listed package <input type="checkbox"/> CSA Certified <input type="checkbox"/> Wide skid base <input type="checkbox"/> Weather sound attenuated enclosure <input type="checkbox"/> Protective enclosure <input type="checkbox"/> Integral dual wall UL Listed 8 hr fuel tank <input type="checkbox"/> Sub-base dual wall UL Listed 24 hr fuel tank <input type="checkbox"/> Sub-base dual wall UL Listed 48 hr fuel tank

STANDBY 600 kW 750 kVA
60 Hz 1800 rpm 480 Volts



SPECIFICATIONS

STANDARD CAT GENERATOR	
Frame size	LC7024F
Excitation	Internal Excitation
Pitch	0.6667
Number of poles	4
Number of bearings	Single bearing
Number of leads	12
Insulation	UL 1446 Recognized Class H with tropicalization and antiabrasion
IP Rating	IP23
Alignment	Pilot shaft
Overspeed capability (%)	125
Wave form deviation (%)	2
Voltage regulator	Three phase sensing
Voltage regulation	+/- 0.25% (steady state)
- Consult your Cat dealer for other available voltages	
CAT DIESEL ENGINE	
C18 ATAAC, I-6, 4-Stroke Water-cooled Diesel	
Bore	145.00 mm (5.71 in)
Stroke	183.00 mm (7.2 in)
Displacement	18.13 L (1106.36 in ³)
Compression ratio	14.5:1
Aspiration	Air-to-air aftercooled
Fuel system	MEUI™
Governor type	Caterpillar ADEM™ control system

CAT EMCP 4 SERIES CONTROLS

EMCP 4 controls including:

- Run / Auto / Stop Control
- Speed and Voltage Adjust
- Engine Cycle Crank
- 24-volt DC operation
- Environmental sealed front face
- Text alarm/event descriptions

Digital indication for:

- RPM
- DC volts
- Operating hours
- Oil pressure (psi, kPa or bar)
- Coolant temperature
- Volts (L-L & L-N), frequency (Hz)
- Amps (per phase & average)
- kW, kVA, kVAR, kW-hr, %kW, PF (4.2 only)

Warning/shutdown with common LED indication of:

- Low oil pressure
- High coolant temperature
- Overspeed
- Emergency stop
- Failure to start (overcrank)
- Low coolant temperature
- Low coolant level

Programmable protective relaying functions:

- Generator phase sequence
- Over/Under voltage (27/59)
- Over/Under Frequency (81 o/u)
- Reverse Power (kW) (32) (4.2 only)
- Reverse reactive power (kVA) (32RV)
- Overcurrent (50/51)

Communications:

- Four digital inputs (4.1)
- Six digital inputs (4.2 only)
- Four relay outputs (Form A)
- Two relay outputs (Form C)
- Two digital outputs
- Customer data link (Modbus RTU) (4.2 only)
- Accessory module data link (4.2 only)
- Serial annunciator module data link (4.2 only)
- Emergency stop pushbutton

Compatible with the following:

- Digital I/O module
- Local Annunciator
- Remote CAN annunciator
- Remote serial annunciator

STANDBY 600 ekW 750 kVA
60 Hz 1800 rpm 480 Volts



TECHNICAL DATA

Open Generator Set - - 1800 rpm/60 Hz/480 Volts	DM8518	
EPA Certified for Stationary Emergency Application (EPA Tier 2 emissions levels)		
Generator Set Package Performance Genset power rating @ 0.8 pf Genset power rating with fan	750 kVA 600 ekW	
Fuel Consumption 100% load with fan 75% load with fan 50% load with fan	161.6 L/hr 129.8 L/hr 91.7 L/hr	42.7 gal/hr 34.3 gal/hr 24.2 gal/hr
Cooling System¹ Air flow restriction (system) Air flow (max @ rated speed for radiator arrangement) Engine Coolant capacity with radiator/exp. tank Engine coolant capacity Radiator coolant capacity	0.12 kPa 568 m ³ /min 54.9L 20.8 L 34.1 L	0.48 in. water 20059 cfm 14.5 gal 5.5 gal 9.0 gal
Inlet Air Combustion air inlet flow rate	47.8 m ³ /min	1688.0 cfm
Exhaust System Exhaust stack gas temperature Exhaust gas flow rate Exhaust flange size (internal diameter) Exhaust system backpressure (maximum allowable)	534.6°C 135.5 m ³ /min 203 mm 10.0 kPa	994.3°F 4785.1 cfm 8 in 40.2 in. water
Heat Rejection Heat rejection to coolant (total) Heat rejection to exhaust (total) Heat rejection to aftercooler Heat rejection to atmosphere from engine Heat rejection to atmosphere from generator	189 kW 634 kW 153 kW 86.0 kW 41.0 kW	10748 Btu/min 36056 Btu/min 8701 Btu/min 4891 Btu/min 2331.7 Btu/min
Alternator² Motor starting capability @ 30% voltage dip Frame Temperature rise	1633 skVA LC7024F 150°C	270°F
Lubrication System Sump refill with filter	64.0 L	16.9 gal
Emissions (Nominal)³ NOx g/hp-hr CO g/hp-hr HC g/hp-hr PM g/hp-hr	5.75 g/hp-hr 0.46 g/hp-hr 0.01 g/hp-hr 0.03 g/hp-hr	

¹ For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.

² Generator temperature rise is based on a 40° C (104° F) ambient per NEMA MG1-32. Some packages may have oversized generators with a different temperature rise and motor starting characteristics.

³ Emissions data measurement procedures are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state operating conditions of 77°F, 28.42 in HG and number 2 diesel fuel with 35° API and LHV of 18,390 btu/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle.

STANDBY 600 ekW 750 kVA
60 Hz 1800 rpm 480 Volts



RATING DEFINITIONS AND CONDITIONS

Applicable Codes and Standards:

AS1359, CSA C22.2 No100-04, UL142,UL489,
UL869, UL2200, NFPA37, NFPA70, NFPA99,
NFPA110, IBC, IEC60034-1, ISO3046, ISO8528,
NEMA MG1-22,NEMA MG1-33, 72/23/EEC, 98/37/
EC, 2004/108/EC.

Standby – Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

Fuel Rates are based on fuel oil of 35° API (16°C or 60°F) gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

Additional Ratings may be available for specific customer requirements. Consult your Cat representative for details.

STANDBY 600 ekW 750 kVA

60 Hz 1800 rpm 480 Volts



DIMENSIONS

Package Dimensions		
Length	3361 mm	132.3 in
Width	1580 mm	62.2 in
Height	2078 mm	81.8 in

NOTE: For reference only – do not use for installation design. Please contact your local dealer for exact weight and dimensions.

www.Cat-ElectricPower.com

Performance No.: DM8518

Feature Code: C18DE6E

Gen. Arr. Number: 4183897

Source: U.S. Sourced

LEHE0483-00 (12/13)

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Materials and specifications are subject to change without notice.
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	Gr/hp-HR	hp	#/hr	hours	T/yr	8760 TPY
hc	0.01	900	0.02	500	0.00496	0.088889
nox	5.75	900	11.41	500	2.852183	51.11111
co	0.46	900	0.91	500	0.228175	4.088889
pm	0.03	900	0.06	500	0.014881	0.266667
so2		900	0.00	500	0	0

General Permit G60-C Registration Section Applicability Form

General Permit G60-C was developed to allow qualified registrants to seek registration for emergency generator(s).

General Permit G60-C allows the registrant to choose which sections of the permit that they wish to seek registration under. Therefore, please mark which sections that you are applying for registration under. Please keep in mind, that if this registration is approved, the issued registration will state which sections will apply to your affected facility.

Section 5	Reciprocating Internal Combustion Engines (R.I.C.E.)*	X
Section 6	Tanks	<input type="checkbox"/>
Section 7	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII)	X
Section 8	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ)	<input type="checkbox"/>

* Affected facilities that are subject to Section 5 may also be subject to Sections 7 or 8. Therefore, if the applicant is seeking registration under both sections, please select both.

EMERGENCY GENERATOR ENGINE DATA SHEET

Source Identification Number ¹		E-Gen Bldg. 52					
Engine Manufacturer and Model		Caterpillar C18					
Manufacturer's Rated bhp/rpm		900					
Source Status ²		NS					
Date Installed/Modified/Removed ³		2015					
Engine Manufactured/Reconstruction Date ⁴		2015					
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart IIII? (Yes or No) ⁵		Yes					
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart JJJJ? (Yes or No) ⁶		No					
Engine, Fuel and Combustion Data	Engine Type ⁷	LB4S					
	APCD Type ⁸						
	Fuel Type ⁹	2FO					
	H ₂ S (gr/100 scf)						
	Operating bhp/rpm	???					
	BSFC (Btu/bhp-hr)						
	Fuel throughput (ft ³ /hr)	42.7 gph					
	Fuel throughput (MMft ³ /yr)						
Operation (hrs/yr)	500						
Reference ¹⁰	Potential Emissions ¹¹	lbs/hr	tons/yr			lbs/hr	tons/yr
MD	NO _x	11.4	2.8				
	CO	0.9	0.22				
	VOC						
	SO ₂						
	PM ₁₀	0.06	0.014				
	Formaldehyde						

1. Enter the appropriate Source Identification Number for each emergency generator. Generator engines should be designated EG-1, EG-2, EG-3 etc. If more than three (3) engines exist, please use additional sheets.
2. Enter the Source Status using the following codes:

NS	Construction of New Source (installation)	ES	Existing Source
MS	Modification of Existing Source	RS	Removal of Source

3. Enter the date (or anticipated date) of the engine's installation (construction of source), modification or removal.
4. Enter the date that the engine was manufactured, modified or reconstructed.
5. Is the engine a certified stationary spark ignition internal combustion engine according to 40CFR60 Subpart IIII. If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance according to 40CFR§60.4210 as appropriate.

Provide a manufacturer's data sheet for all engines being registered.

6. Is the engine a certified stationary spark ignition internal combustion engine according to 40CFR60 Subpart JJJJ. If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance according to 40CFR§60.4243a(2)(i) through (iii), as appropriate.

Provide a manufacturer's data sheet for all engines being registered.

7. Enter the Engine Type designation(s) using the following codes:

LB2S	Lean Burn Two Stroke	RB4S	Rich Burn Four Stroke
LB4S	Lean Burn Four Stroke		

8. Enter the Air Pollution Control Device (APCD) type designation(s) using the following codes:

A/F	Air/Fuel Ratio	IR	Ignition Retard
HEIS	High Energy Ignition System	SIPC	Screw-in Precombustion Chambers
PSC	Prestratified Charge	LEC	Low Emission Combustion
NSCR	Rich Burn & Non-Selective Catalytic Reduction	SCR	Lean Burn & Selective Catalytic Reduction

9. Enter the Fuel Type using the following codes:

PQ	Pipeline Quality Natural Gas	RG	Raw Natural Gas
2FO	#2 Fuel Oil	LPG	Liquid Propane Gas

10. Enter the Potential Emissions Data Reference designation using the following codes. Attach all referenced data to this *Compressor/Generator Data Sheet(s)*.

MD	Manufacturer's Data	AP	AP-42	
GR	GRI-HAPCalc TM	OT	Other _____	(please list)

11. Enter each engine's Potential to Emit (PTE) for the listed regulated pollutants in pounds per hour and tons per year. PTE shall be calculated at manufacturer's rated brake horsepower and may reflect reduction efficiencies of listed Air Pollution Control Devices. Emergency generator engines may use 500 hours of operation when calculating PTE. PTE data from this data sheet shall be incorporated in the *Emissions Summary Sheet*.

STORAGE TANK DATA SHEET

Source ID # ¹	Status ²	Content ³	Volume ⁴	Dia ⁵	Throughput ⁶	Orientation ⁷	Liquid Height ⁸
E-Gen Bldg. 52		#2 Diesel (ULSD)	100 gal double wall supply day tank				
			Generator main fuel source is a 2000 gal double wall STI-P3 UST (UST-3A)				

1. Enter the appropriate Source Identification Numbers (Source ID #) for each storage tank located at the compressor station. Tanks should be designated T01, T02, T03, etc.
2. Enter storage tank Status using the following:

EXIST Existing Equipment	NEW Installation of New Equipment
REM Equipment Removed	
3. Enter storage tank content such as condensate, pipeline liquids, glycol (DEG or TEG), lube oil, etc.
4. Enter storage tank volume in gallons.
5. Enter storage tank diameter in feet.
6. Enter storage tank throughput in gallons per year.
7. Enter storage tank orientation using the following:

VERT Vertical Tank	HORZ Horizontal Tank
--------------------	----------------------
8. Enter storage tank average liquid height in feet.

EMERGENCY GENERATOR EMISSION SUMMARY SHEET FOR CRITERIA POLLUTANTS

Emergency Generator Location:		Registration Number (Agency Use) <u>G60-C</u>													
Source ID No.	Potential Emissions (lbs/hr)										Potential Emissions (tons/yr) (based on 500 hours)				
	NO _x	CO	VOC	SO ₂	PM ₁₀	NO _x	CO	VOC	SO ₂	PM ₁₀	NO _x	CO	VOC	SO ₂	PM ₁₀
E-Gen Bldg. 52	11.4	0.91			0.06	2.8	0.22				2.8	0.22			0.0148
Total	11.4	0.91			0.06	2.8	0.22				2.8	0.22			0.0148

**General Permit Levels
Construction, Modification, Relocation, Administrative Update**

Class II General Permits – G10-C (Coal Preparation and Handling), G20-B (Hot Mix Asphalt), G30-D (Natural Gas Compressor Stations), G35-A (Natural Gas Compressor Stations with Flares/Glycol Dehydration Units), G40-B (Nonmetallic Minerals Processing), G50-B (Concrete Batch Plant), G60-C (Emergency Generators)

Class I General Permit - G65-C (Emergency Generators)

General Permit	Public Notice	Review Period as 45CSR13	Application Fee	Criteria	Application Type
Class II General Permit (Construction)	30 days (applicant)	90 days	\$500 + applicable NSPS fees	6 lb/hr and 10 tpy of any regulated air pollutant OR 144 lb/day of any regulated air pollutant, OR 2 lb/hr of any hazardous air pollutant OR 5 tpy of aggregated HAP OR 45CSR27 TAP (10% increase if above BAT triggers or increase to BAT triggers) or subject to applicable standard or rule, but subject to specific eligibility requirements	Registration Application
Class II General Permit (Modification)	30 days (applicant)	90 days	\$500 + applicable NSPS fees	Same as Class II General Permit (Construction) but subject to specific eligibility requirements	Registration Application
Administrative Update (Class I)	None	60 days	None	Decrease in emissions or permanent removal of equipment OR more stringent requirements or change in MRR that is equivalent or superior	Registration Application or Written Request
Administrative Update (Class II)	30 days (applicant)	60 days	\$300 + applicable NSPS fees	No change in emissions or an increase less than Class II Modification levels	Registration Application
Relocation	30 days (applicant)	45 days	\$500 + applicable NSPS fees	No emissions increase or change in facility design or equipment	Registration Application
Class I General Permit	None	45 days	\$250	Same as Class II General Permit (Construction) but subject to specific eligibility requirements	Registration Application

