



BLUE SKY ENVIRONMENTAL LLC

March 23, 2016



Ms. Bev McKeone
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Subject: Application for General Permit Modification (G65-C298) for Replacement Engine Sinclair Media III, Inc.; WCHS/WVAH Studio Building

Dear Ms. McKeone:

Sinclair Media III, Inc. ("Sinclair") is installing a new 250 kW generator with a Tier 3, 398 hp engine manufactured in 2015 at its WCHS/WVAH studio facility located at 1301 Piedmont Road in Charleston, West Virginia. This generator will replace the currently permitted 230 kW generator (with a 355 hp engine manufactured in 1980). This generator currently operates under General Permit G65-C298 issued in 2010. The new generator is expected to replace the existing generator in April.

Attached please find a Modification Application for General Permit Registration for a Class I Emergency Generator for the new generator. Sinclair plans to use the engine for emergencies, testing/maintenance, and for PJM's Emergency Load Response Program ("ELRP"). Prior discussions with the DEP indicate that emergency engines in West Virginia can participate in the ELRP.

The replacement engine will operate under the NSPS as per 40 CFR 60 Subpart IIII. The NSPS currently allows for up to 100 hours per engine per year for testing, maintenance, and emergency DR use; however, in May, 2015 an Appeals Court found EPA to be arbitrary and capricious for changing its regulations to allow emergency engines to participate in emergency DR. EPA was granted a stay until May 1, 2016. If the Court Mandate goes into effect, the new engine will not be enrolled in the ELRP and will continue to operate as an emergency only engine.

Based on discussions with the DEP, it is understood that the permit emissions thresholds for regulated air pollutants are/were the following:

1974 to May 31 2000: 6 lb/hr
June 1 2000 to May 31, 2003: 6 lb/hr or 10 tons/yr
June 1 2003 to present: 6 lb/hr and 10 tons/yr

Ms. Bev McKeone
WV DEP
March 23, 2016

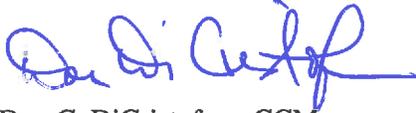
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In addition, engines that operate under the NSPS are required to be permitted. It is understood that the 10 tons/yr thresholds are based on 8,760 hours of potential operation. Since this engine will operate under the NSPS, a permit is required.

Attached are the required forms, maps, analyses, and a \$250 check. An original and two copies are provided. If you have any questions or require additional information, please do not hesitate to contact me at don@blueskyenviro.com or 617-834-8408.

Sincerely,

Blue Sky Environmental LLC



Don C. DiCristofaro, CCM
President
Attachments

Cc: R. Beckner, Sinclair

General Permit Registration
G65-C – Class I Emergency Generator
WCHS/WVAH Studio Building

Sinclair Media III, Inc.
1301 Piedmont Road
Charleston, WV 25301

Submitted To:
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Submitted:
March 23, 2016



WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF AIR QUALITY
 601 57th Street, SE
 Charleston, WV 25304
 Phone: (304) 926-0475 • www.dep.wv.gov/daq

APPLICATION FOR GENERAL PERMIT REGISTRATION
 CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE
 A STATIONARY SOURCE OF AIR POLLUTANTS

CONSTRUCTION MODIFICATION RELOCATION CLASS I ADMINISTRATIVE UPDATE
 CLASS II ADMINISTRATIVE UPDATE

CHECK WHICH TYPE OF GENERAL PERMIT REGISTRATION YOU ARE APPLYING FOR:

- | | |
|---|--|
| <input type="checkbox"/> G10-D – Coal Preparation and Handling | <input type="checkbox"/> G40-C – Nonmetallic Minerals Processing |
| <input type="checkbox"/> G20-B – Hot Mix Asphalt | <input type="checkbox"/> G50-B – Concrete Batch |
| <input type="checkbox"/> G30-D – Natural Gas Compressor Stations | <input type="checkbox"/> G60-C – Class II Emergency Generator |
| <input type="checkbox"/> G33-A – Spark Ignition Internal Combustion Engines | <input checked="" type="checkbox"/> G65-C – Class I Emergency Generator |
| <input type="checkbox"/> G35-A – Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit) | <input type="checkbox"/> G70-A – Class II Oil and Natural Gas Production Facility |

SECTION I. GENERAL INFORMATION

1. Name of applicant (as registered with the WV Secretary of State's Office): Sinclair Media III, Inc.		2. Federal Employer ID No. (FEIN): 52-1836394	
3. Applicant's mailing address: 1301 Piedmont Road _____ Charleston, WV 25301		4. Applicant's physical address: 1301 Piedmont Road _____ Charleston, WV 25301	
5. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
6. WV BUSINESS REGISTRATION. Is the applicant a resident of the State of West Virginia? <input checked="" 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 LLC / Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			

SECTION II. FACILITY INFORMATION

7. Type of plant or facility (stationary source) to be constructed, modified, relocated or administratively updated (e.g., coal preparation plant, primary crusher, etc.): Emergency Generator for Television Studio	8a. Standard Industrial Classification Classification (SIC) code: 4833	AND	8b. North American Industry System (NAICS) code: 515120
9. DAQ Plant ID No. (for existing facilities only): 039 - 00613	10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): G65-C298 _____ _____		

A: PRIMARY OPERATING SITE INFORMATION

11A. Facility name of primary operating site: <u>WCHS/WVAH Studio Building</u> _____ _____	12A. Address of primary operating site: Mailing: <u>1301 Piedmont Road; Charleston, WV 25301</u> Physical: <u>1301 Piedmont Road; Charleston, WV 25301</u> _____	
13A. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input checked="" type="checkbox"/> YES NO - IF YES, please explain: <u>Site is owned</u> _____ _____ - IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.		
14A. - For Modifications or Administrative Updates 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 F . <u>Take Exit 100 from I64/77 to Piedmont Road in Charleston; follow to 1301 Piedmont Road</u> _____ _____		
15A. Nearest city or town: Charleston	16A. County: Kanawha	17A. UTM Coordinates: Northing (KM): <u>4,244.6475</u> Easting (KM): <u>445.979</u> Zone: <u>17</u>
18A. Briefly describe the proposed new operation or change (s) to the facility: Addition of new 250 kW emergency backup generator		19A. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: <u>38.34835</u> Longitude: <u>81.61856</u>

B: 1ST ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits)

11B. Name of 1 st alternate operating site: _____ _____	12B. Address of 1 st alternate operating site: Mailing: _____ Physical: _____ _____
13B. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input type="checkbox"/> YES <input type="checkbox"/> NO - IF YES, please explain: _____ _____ - IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.	

14B. — For **Modifications or Administrative Updates** 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 F**.

15B. Nearest city or town:	16B. County:	17B. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
18B. Briefly describe the proposed new operation or change (s) to the facility:		19B. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____

C: 2ND ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits):

11C. Name of 2 nd alternate operating site: _____ _____	12C. Address of 2 nd alternate operating site: Mailing: _____ Physical: _____
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13C. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? 9 YES 9 NO

— IF YES, please explain: _____

— IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.

14C. — For **Modifications or Administrative Updates** 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 F**.

15C. Nearest city or town:	16C. County:	17C. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
18C. Briefly describe the proposed new operation or change (s) to the facility:		19C. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____

<p>20. Provide the date of anticipated installation or change:</p> <p><u> 4 </u> / <u> </u> / <u>2016</u></p> <p><input type="checkbox"/> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: :</p> <p><u> </u> / <u> </u> / <u> </u></p>	<p>21. Date of anticipated Start-up if registration is granted:</p> <p><u> 4 </u> / <u> </u> / <u>2016</u></p>
<p>22. Provide maximum projected Operating Schedule of activity/activities outlined in this application if other than 8760 hours/year. (Note: anything other than 24/7/52 may result in a restriction to the facility's operation).</p> <p>Hours per day _____ Days per week _____ Weeks per year _____ Percentage of operation _____ 500 Hours Per Year</p>	

SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

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

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

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

25. Please check all attachments included with this permit application. Please refer to the appropriate reference document for an explanation of the attachments listed below.

- ATTACHMENT A : CURRENT BUSINESS CERTIFICATE
- ATTACHMENT B: PROCESS DESCRIPTION
- ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS
- ATTACHMENT D: PROCESS FLOW DIAGRAM
- ATTACHMENT E: PLOT PLAN
- ATTACHMENT F: AREA MAP
- ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM
- ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS
- ATTACHMENT I: EMISSIONS CALCULATIONS
- ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT
- ATTACHMENT K: ELECTRONIC SUBMITTAL
- ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE
- ATTACHMENT M: SITING CRITERIA WAIVER
- ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS)
- ATTACHMENT O: EMISSIONS SUMMARY SHEETS
- OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.)

Please mail an original and two copies of the complete General Permit Registration Application with the signature(s) to the DAQ Permitting Section, at the address shown on the front page of this application. Please DO NOT fax permit applications. For questions regarding applications or West Virginia Air Pollution Rules and Regulations, please refer to the website shown on the front page of the application or call the phone number also provided on the front page of the application.

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

FOR A CORPORATION (domestic or foreign)

I certify that I am a President, Vice President, Secretary, Treasurer or in charge of a principal business function of the corporation

FOR A PARTNERSHIP

I certify that I am a General Partner

FOR A LIMITED LIABILITY COMPANY

I certify that I am a General Partner or General Manager

FOR AN ASSOCIATION

I certify that I am the President or a member of the Board of Directors

FOR A JOINT VENTURE

I certify that I am the President, General Partner or General Manager

FOR A SOLE PROPRIETORSHIP

I certify that I am the Owner and Proprietor

I hereby certify that (please print or type) David R. Bochenek

is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Director of the Office of Air Quality immediately, and/or,

I hereby certify that all information contained in this General Permit Registration Application and any supporting documents appended hereto is, to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible

Signature 

(please use blue ink)

Responsible Official

Date

3/3/16

Name & Title David R. Bochenek, Authorized Signatory

(please print or type)

Signature _____

(please use blue ink)

Authorized Representative (if applicable)

Date

Applicant's Name Sinclair Media III, Inc.

Phone & Fax 304-346-5358 Ext. 114 (or) 304-539-3517

Phone

304-346-5414

Fax

Email Rbeckner@sbgstv.com

Attachment A

Business Registration Certificate

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**SINCLAIR MEDIA III INC
1301 PIEDMONT RD
CHARLESTON, WV 25301-1426**

BUSINESS REGISTRATION ACCOUNT NUMBER: 1031-5826

This certificate is issued on: **06/29/2011**

*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.

Attachment B

Process Description

ATTACHMENT B

PROCESS DESCRIPTION

Sinclair Media III, Inc. ("Sinclair") is installing a new 250 kW generator with a Tier 3, 398 hp engine manufactured in 2015 at its WCHS/WVAH studio facility located at 1301 Piedmont Road in Charleston, West Virginia. This generator will replace the existing 230 kW generator with a 355 hp engine manufactured in 1980. The existing generator currently operates under General Permit G65-C298 issued in 2010. Thus this application is for a modification of Permit No. G65-C298 to replace the existing generator with the new generator.

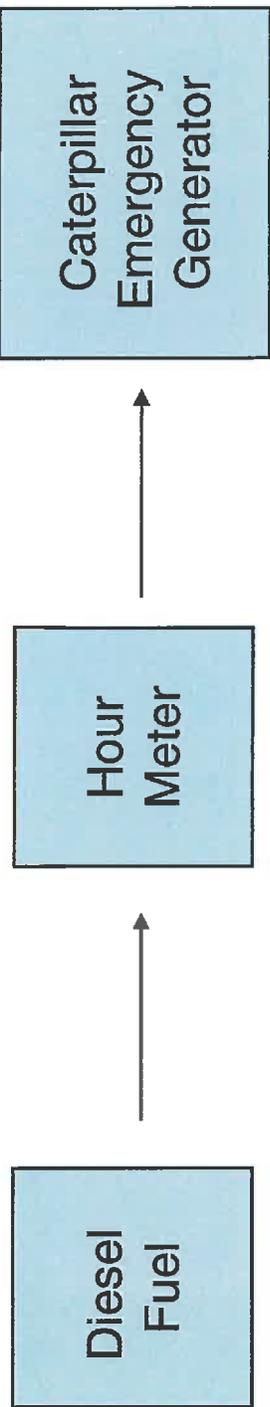
Sinclair will use the new generator for emergency operations, testing/maintenance, and in the PJM Emergency Load Response Program ("ELRP"). The ELRP exists in order to prevent brownouts and blackouts. Numerous states now allow emergency engines to participate during such times (as opposed to waiting for a blackout), principally because studies prove that it is better to prevent a blackout by using a subset of emergency generators for a short period of time as opposed to losing the grid, which would mean all emergency generators in the state operating for many hours or possibly days. The emergency generators at the Sinclair facility will not be synchronized with the grid. The engine will simply be turned on when PJM declares an emergency under the PJM Program, thereby lessening the need for more power on the grid.

The ELRP is activated according to the procedures in the PJM Manual 13 Emergency Operations for a PJM Declared Emergency. A "PJM Declared Emergency" means a condition that exists where the PJM Interconnection LLC notifies electric distributors that an emergency exists or may occur and it is necessary to implement the procedures in the PJM Manual 13 Emergency Operations. The ELRP has rarely been declared – it is truly reserved for emergency situations. This declaration should not be confused with other PJM programs that are enacted for economic reasons (e.g., economic demand response or "peak shaving").

The engine will operate under the NSPS as per 40 CFR 60 Subpart IIII. The NSIS currently allows for up to 100 hours per engine per year for testing, maintenance, and emergency DR use; however, in May, 2015 an Appeals Court found EPA to be arbitrary and capricious for changing its regulations to allow emergency engines to participate in emergency DR. EPA was granted a stay until May 1, 2016. If the Court Mandate goes into effect, the engine will be removed from the emergency DR program and continue to operate as an emergency only engine.

Attachment D

Process Flow Diagram



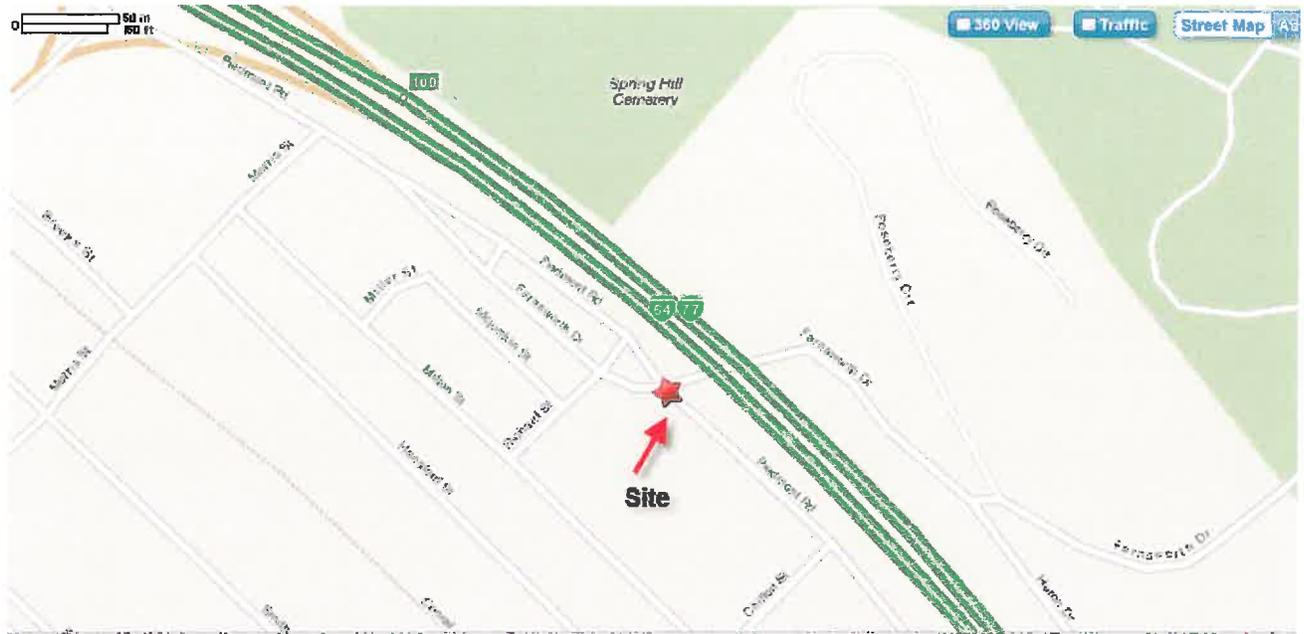
**Attachment D:
Process Flow Diagram
Sinclair Media III, Inc.**

Attachment E

Plot Plan

Attachment F

Area Map



Attachment G

Equipment Data Sheets and Registration Section Applicability Form

General Permit G65-C Registration Section Applicability Form

General Permit G65-C was developed to allow qualified registrants to seek registration for emergency generator(s).

General Permit G65-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.)*	<input checked="" type="checkbox"/>
Section 6	Tanks	<input checked="" type="checkbox"/>
Section 7	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII)	<input checked="" type="checkbox"/>
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		EG-2	
Engine Manufacturer and Model		Caterpillar C9	
Manufacturer's Rated bhp/rpm		398 hp	
Source Status ²		EG	
Date Installed/Modified/Removed ³		4/16	
Engine Manufactured/Reconstruction Date ⁴		2015	
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart III? (Yes or No) ⁵		Yes	
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart JJJ? (Yes or No) ⁶		No	
Engine, Fuel and Combustion Data	Engine Type ⁷		
	APCD Type ⁸	A/F	
	Fuel Type ⁹	2FO	
	H ₂ S (gr/100 scf)		
	Operating bhp/rpm	398 hp/1,800 rpm	
	BSFC (Btu/bhp-hr)	6,580	
	Fuel throughput (ft ³ /hr)	19.4 gal/hr	
	Fuel throughput (MMft ³ /yr)	9,700 gals/year	
	Operation (hrs/yr)	500	
Reference ¹⁰	Potential Emissions ¹¹	lbs/hr	tons/yr
MD	NO _x	2.54	0.6
MD	CO	0.35	0.1
MD	VOC	0.09	0.02
AP	SO ₂	0.82	0.2
MD	PM ₁₀	0.09	0.02
AP	Formaldehyde	3.09E-3	7.73E-4

1. Enter the appropriate Source Identification Number for each emergency generator. Generator engines should be designated EG-1.

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 |

STORAGE TANK DATA SHEET

Source ID # ¹	Status ²	Content ³	Volume ⁴	Dia ⁵	Throughput ⁶	Orientation ⁷	Liquid Height ⁸
T02	NEW	Diesel	730	12.5	9,700	HOR	1.9

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.

Attachment I

Emissions Calculations

Facility Emissions Analysis

WCHS/NVAH Studio Building
1301 Piedmont Road
Charleston, WV 25301

Source	Make	Model	Size Gen-kW Engine-hp	Fuel	Fuel Use (gph)	Heat Input (mmBtu/hr)	NOx	CO	SO2	Emissions (lb/hr)	Hours	NOx	CO	SO2	PM	VOC	Formaldehyde	Permitted Emissions (tpy)	NOx	CO	SO2	PM	VOC	Formaldehyde
Emergency Generator (Tier 3) EG-2 (replaces EG-1)	Caterpillar	C9	250	398 Diesel	19.4	2,619	2.54	0.35	0.82	0.35	500	0.64	0.09	0.20	0.02	0.09	3.09E-03	0.64	0.09	0.20	0.02	0.02	0.02	7.73E-04
TOTAL							2.54	0.35	0.82	0.35	500	0.64	0.09	0.20	0.02	0.09	3.09E-03	0.64	0.09	0.20	0.02	0.02	0.02	7.73E-04

Notes:
Estimated Heat Input = gal/hr * 135,000 Btu/gal
In addition to the generator, the facility also has seven HVAC rooftop units with gas fired forced air systems (0.064, 0.180, 0.120, 0.160, 0.120, 0.120, and 0.120 mmBtu/hr each).

Emission Factors:

Emergency Generator	lb/tp-hr	For Tier 3 (from Specs)
< 600 hp		g/tp-hr
NOx	2.9	
VOC	0.1	
CO	0.4	
PM	0.1	
SOx	2.05E-03	

Toxic Pollutant Calculations for Emergency Generator

Source: EPA AP-42, Fifth Edition, October, 1996	EG-2	EG-2	EG-2
< 600 hp	lb/hr	Hours	tpy
Benzene	1.81E-02	500	4.53E-03
Toluene	7.89E-03	500	1.98E-03
Xylenes	5.59E-03	500	1.39E-03
Formaldehyde	2.29E-02	500	5.72E-03

ELECTRIC POWER - Technical Spec Sheet
STANDARD



C9 ACERT
250 ekW/ 313 kVA/ 60 Hz/ 1800 rpm/ 480 V/ 0.8 Power Factor

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency Use Only (Tier 3 Nonroad Equivalent Emission Standards)

C9 ACERT
250 ekW/ 313 kVA
60 Hz/ 1800 rpm/ 480 V



Image shown may not reflect actual configuration

	Metric	English
Package Performance		
Genset Power Rating with Fan @ 0.8 Power Factor		250 ekW
* Genset Power Rating		313 kVA
Aftercooler (Separate Circuit)	N/A	N/A
Fuel Consumption		
100% Load with Fan	73.3 L/hr	19.4 gal/hr
* 75% Load with Fan	58.8 L/hr	15.5 gal/hr
50% Load with Fan	43.8 L/hr	11.6 gal/hr
25% Load with Fan	27.4 L/hr	7.3 gal/hr
Cooling System¹		
Engine Coolant Capacity	13.9 L	3.7 gal
Inlet Air		
Combustion Air Inlet Flow Rate	25.2 m ³ /min	889.8 cfm
* Max. Allowable Combustion Air Inlet Temp	50 °C	122 °F
Exhaust System		
Exhaust Stack Gas Temperature	455.5 °C	852.0 °F
Exhaust Gas Flow Rate	63.6 m ³ /min	2245.6 cfm
Exhaust System Backpressure (Maximum Allowable)	10.0 kPa	40.0 in. water



C9 ACERT
250 kW/ 313 kVA/ 60 Hz/ 1800 rpm/ 480 V/ 0.8 Power Factor

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency Use Only (Tier 3 Nonroad Equivalent Emission Standards)

Heat Rejection		
Heat Rejection to Jacket Water	104 kW	5928 Btu/min
Heat Rejection to Exhaust (Total)	277 kW	15772 Btu/min
Heat Rejection to Aftercooler	82 kW	4686 Btu/min
Heat Rejection to Atmosphere from Engine	18 kW	1004 Btu/min
Heat Rejection to Atmosphere from Generator	20 kW	1120 Btu/min

Alternator ²	
Motor Starting Capability @ 30% Voltage Dip	543 skVA
Current	376 amps
Frame Size	LC5014H
Excitation	SE
Temperature Rise	150 ° C

Emissions (Nominal) ³		
NOx	1516.2 mg/Nm ³	2.9 g/hp-hr
CO	172.8 mg/Nm ³	0.4 g/hp-hr
HC	37.7 mg/Nm ³	0.1 g/hp-hr
PM	32.6 mg/Nm ³	0.1 g/hp-hr

DEFINITIONS AND CONDITIONS

1. For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.
2. UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics. Generator temperature rise is based on a 40° C ambient per NEMA MG1-32.
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.



C9 ACERT
250 ekW/ 313 kVA/ 60 Hz/ 1800 rpm/ 480 V/ 0.8 Power Factor

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency Use Only (Tier 3 Nonroad Equivalent Emission Standards)

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, 2006/95/EC, 2006/42/EC, 2004/108/EC.

Note: Codes may not be available in all model configurations. Please consult your local Cat Dealer representative for availability.

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 (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, contact your Cat representative for details. For information regarding Low Sulfur fuel and Biodiesel capability, please consult your Cat dealer.

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Performance No.: DM8501-03

Feature Code: C09DE47

Generator Arrangement: 4490571

Date: 02/11/2016

Source Country: U.S.

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ENGINE TEST [S9L04538]

MARCH 07, 2016

**(S9L04538)-ENGINE (G5A06058)-GENERATOR (NBP00369)
-GENSET**

For Help Desk Phone Numbers [Click here](#)

Sales Model: C9

Built Date: 16Oct2012

Tested Date: 18Oct2012

Shipped Date: 24Oct2012

Tested: GV

Plant: Greenville(MCOE)

Cell Number: 006

Test Element	Eng Updates	Test Value	Test Spec Value	Measure
Spec Number	0K6612	0K6612	0K6612	
Arrangement Number		3950368	3950368	
Corr FI Power		398 R	398	HP 
Speed		1,799	1,800	RPM 
COR FL FUEL RATE		19.9 R	19.3	GAL/HR 
CSFC		0.354	0.353	LB/HP-HR
Adj Boost		72.7	72.0	IN HG
Fuel Pressure		77	80	PSI 
Oil Pressure		54	54	PSI 
TQ COR FUEL RATE		17.2 R	17.2	GAL/HR
TQ CK CSFC		0.320	0.322	LB/HP-HR
TQ CK ADJ BST		64.4	60.1	IN HG
Torq Ck Speed		1,500	1,500	RPM
TQ CK COR TQ		1,331 R	1,331	LB.FT
Low Idle Speed		1,368	1,369	RPM
Low Idle Oil Pressure		53	53	PSI
High Idle Speed		1,944	1,945	RPM
Response Time				
FL Static Fuel Setting		0.875R	0.881	IN
FT Static Fuel Setting		0.847R	0.865	IN 
Timing Dim				
Full Load Setting(FLS) Intercept		-61 R	-17	
Full Torque Setting(FTS) Slope		49 R	3	
Advertised Power			398	hp
Advertised Speed			1,800	RPM
Advertised Torque				LB.FT
Adjusted Boost (Gas Blending)				HG
Corrected Fuel Rate - Gas (Gas Blending)				BTU/MIN
Corrected Fuel Rate - Diesel (Gas Blending)				GAL/HR
Full Load Fueling (Gas Blending)				MM3/ST
Gas Substitution Ratio (Gas Blending)				%
Corr Full Load Power (Gas Blending)				HP
Full Load Speed (Gas Blending)				RPM
Exhaust Back Pressure				PSI
TQ CK Exhaust Back Pressure				PSI
Ataac Delta Pressure				PSI

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Content Owner: Commercial Processes Division

Web Master(s): [PSG Web Based Systems Support](#)

Current Date: 03/07/2016 1:36:26 PM

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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: FCPXL08.8NZS-017

Effective Date:
 09/04/2014
Expiration Date:
 12/31/2015


 Byron J. Bunker, Division Director
 Compliance Division

Issue Date:
 09/04/2014
Revision Date:
 N/A

Model Year: 2015
Manufacturer Type: Original Engine Manufacturer
Engine Family: FCPXL08.8NZS

Mobile/Stationary Indicator: Stationary
Emissions Power Category: 225<=kW<450
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 1068 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.





Image shown may not reflect actual package.

C9 Integral and Sub-Base Fuel Tanks

**US Sourced
Diesel Generator Set
180 – 300 kW 60 Hz**

FEATURES

- UL listed for United States (UL 142) and Canada (ULC S601)
- Compliant with NFPA 30, 37 & 110 and CSA C282-09 & B139-09 standards.
- Dual wall
- Lockable fuel fill cap, 4" (101.6mm) NPT
- Low fuel level warning standard, customer configurable warning or shutdown
- Primary tank leak detection switch in containment basin
- Tank design provides capacity for thermal expansion of fuel
- Fuel supply dip tube is positioned so as not to pick up fuel sediment
- Fuel return and supply dip tube is separated by an internal baffle to prevent immediate re-supply of heated return fuel
- Pressure washed with an iron phosphate solution
- Interior tank surfaces coated with a solvent-based thin-film rust preventative
- Heavy gauge steel gussets with internal lifting rings
- Primary and secondary tanks are leak tested at 20.7 kPa (3 psi) minimum
- Compatible with open packages and enclosures
- Gloss black polyester alkyd enamel exterior paint
- Welded steel containment basin (minimum of 110% of primary tank capacity)
- Direct reading fuel gauge with variable electrical output
- Emergency vents on primary and secondary tanks are sized in accordance with NFPA 30

DESCRIPTION – Sub Base

- The sub-base fuel tank mounts below the generator set wide base

DESCRIPTION – Integral

- Integral diesel fuel tank is incorporated into the generator set base frame
- Robust base design includes linear vibration isolators between tank base and engine generator

OPTIONS

- Audio/visual fuel level alarm panel
- 5 gal (18.9 L) spill containment
- Overfill prevention valve

ATTACHMENTS



INTEGRAL & SUB-BASE FUEL TANK BASE CAPACITIES with Fuel Tank Dimensions & Weights

Integral – Width (W) 2014 mm (79.3 in)

Sub-base – Width (W) 2056 mm (81 in)

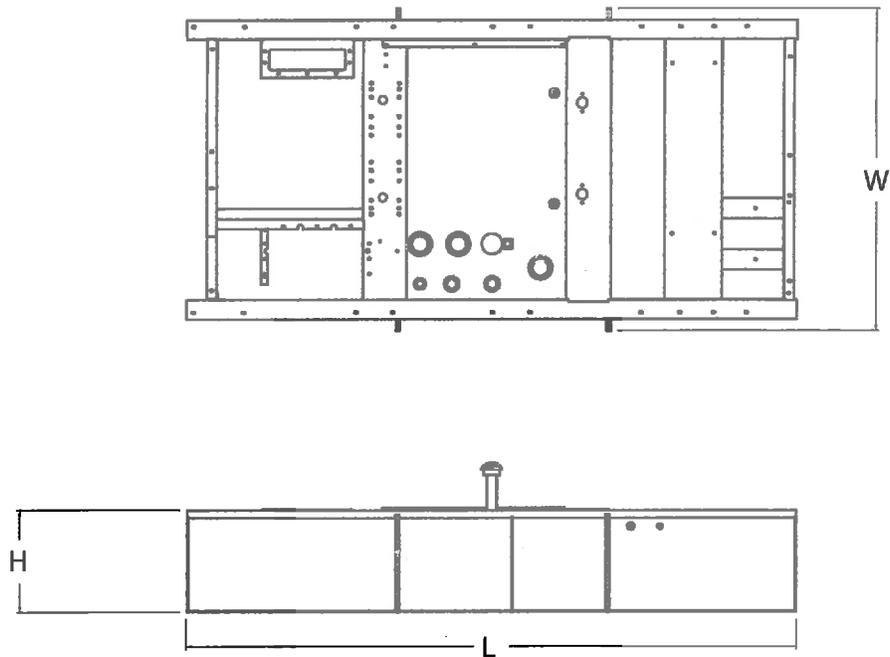
OPEN SET, WEATHER PROTECTIVE ENCLOSURE & SOUND ATTENUATED

Feature Code	Tank Design	Total Capacity		Useable Capacity		TANK ONLY						TANK AND PACKAGE					
						Dry Weight		Length 'L'		Height 'H'		Open PGS Height		WP PGS Height		SA PGS Height	
		Gallon	Litre	Gallon	Litre	kg	lb	mm	in	mm	in	mm	in	mm	in	mm	in
FTDW010	Integral	212	803	203	768	891	1964	3810	150.0	636	25.0	2360	92.9	2438	96.0	2492	98.1
FTDW008	sub base	730	2763	660	2498	1468	3236	3810	150.0	635	25.0	2699	106.3	2777	109.3	2831	111.5
FTDW009	sub base	1036	3922	1002	3793	1832	4038	5550	218.5	635	25.0	2699	106.3	2777	109.3	2831	111.5

ESTIMATED RUN TIMES (hours) AT 100% LOAD

Feature Code	Tank Design	Standby Ratings (ekW)			Prime Ratings (ekW)		
		300	250	200	275	225	180
FTDW010	Integral	9	10	13	10	11	15
FTDW008	sub base	29	34	43	31	36	47
FTDW009	sub base	44	52	65	47	55	72

ATTACHMENTS



The heights listed above do not include lumber used during manufacturing and shipping. Tanks with full electrical stub-up area include removable end channel. Tanks with RH/LH stub-up include stub-up area directly below the circuit breaker or power terminal strips. Dimensions include weather-protective enclosure exhaust system.

Dual wall sub-base tanks are UL listed and constructed in accordance with Underwriters Laboratories Standard UL142 "Steel Aboveground Tanks for Flammable and Combustible Liquids" and Canada ULC S601 "Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids."

Fuel tanks comply with the following United States NFPA Codes:
NFPA 30 – Flammable and Combustible Liquids Code
NFPA 37 – Standard for Installation and Use of Stationary Combustible Engine
NFPA 110 – Standard for Emergency and Standby Power Systems

Fuel tanks comply with the following Canadian Codes:
CSA C282-09 – Emergency Electrical Power Supply for Buildings
CSA B139-09 – Installation Code for Oil-Burning Equipment

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Attachment L

General Permit Registration Application Fee

Attachment O

Emissions Summary Sheets

EMERGENCY GENERATOR EMISSION SUMMARY SHEET FOR CRITERIA POLLUTANTS

Emergency Generator Location: <u>WCHS/WVAH Studio Building</u>		Registration Number (Agency Use) <u>G65-C</u>												
Source ID No.	Potential Emissions (lbs/hr)								Potential Emissions (tons/yr)					
	NOx	CO	VOC	SO ₂	PM ₁₀	NOx	CO	VOC	SO ₂	PM ₁₀				
EG-2	2.54	0.35	0.09	0.82	0.09	0.6	0.1	0.02	0.2	0.02				
Total	2.54	0.35	0.09	0.82	0.09	0.6	0.1	0.02	0.2	0.02	0.6	0.1	0.2	0.02

EMERGENCY GENERATOR EMISSION SUMMARY SHEET FOR HAZARDOUS/TOXIC POLLUTANTS

Emergency Generator Location: <u>WCHS/WVAH Studio Building</u>		Registration Number (Agency Use) <u>G65-C</u>												
Source ID No.	Potential Emissions (lbs/hr)							Potential Emissions (tons/yr)						
	Benzene	Ethyl-benzene	Toluene	Xylenes	n-Hexane	Formaldehyde	Benzene	Ethyl-benzene	Toluene	Xylenes	n-Hexane	Formaldehyde		
EG-2	1.81E-2	NA	7.93E-3	5.53E-3	NA	2.29E-2	4.53E-3	NA	1.98E-3	1.38E-3	NA	5.72E-3		
Total	2.67E-3	NA	1.17E-3	8.16E-4	NA	3.38E-3	6.68E-4	NA	2.93E-4	2.04E-4	NA	8.44E-4		