American Public University System
American Military University | American Public University

111 West Congress Street
Charles Town, WV 25414
Tel 877-755-2787
www.apus.edu

August 22, 2016

WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Dear Mr. Gene Coccari,

Enclosed is our G60-C Class II Emergency Generator General Permit Registration application for our two emergency generators located on our university campus situated within the boarders of Charles Town and Ranson, West Virginia. These generators will run in the event of a power loss. Enclosed is our completed permit application, two CDs, and permit fee check.

If you have any questions concerning this permit application, please contact APUS facilities manager Mel Dilley at 304-885-5299. His email address is mdilley@apus.edu .

Sincerely,

Michael Gunia
Associated Vice President, Facilities
American Public University System
304-724-3856
mgunia@apus.edu

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

X CONSTRUCTION MODIFICATION RELOCATION CLASS I ADMINISTRATIVE UPDATE
CLASS II ADMINISTRATIVE UPDATE

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

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

RECEIVED
SEP 9 2016
WV DEP / DIV OF AIR QUALITY

SECTION I. GENERAL INFORMATION

1. Name of applicant (as registered with the WV Secretary of State's Office):
American Public University System, Inc.

2. Federal Employer ID No. **(FEIN):**
01-0724370

3. Applicant's mailing address:
111 West Congress Street
Charles Town, WV 25414-1621

4. Applicant's physical address:
111 West Congress Street
Charles Town, WV 25414-1621

5. If applicant is a subsidiary corporation, please provide the name of parent corporation: American Public Education, Inc.

6. **WV BUSINESS REGISTRATION.** Is the applicant a resident of the State of West Virginia? X 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 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.):
Education Facility – Emergency Generator

8a. Standard Industrial Classification (SIC) code: 8221

AND

8b. North American Industry System (NAICS) code: 611310

9. DAQ Plant ID No. (for existing facilities only): N/A
____-_____

10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): N/A

A: PRIMARY OPERATING SITE INFORMATION

11A. Facility name of primary operating site:	12A. Address of primary operating site:
American Public University System	Mailing:111 West Congress St., Charles Town, WV 25414 Physical: (EG1): 393 N. Lawrence St., Charles Town, WV 25414 and (EG2): 303 W. Third Ave., Ranson, WV 25438

13A. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? **X YES** **NO**

- IF **YES**, please explain: Applicant owns sites
- 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.**

See attachment F (map and directions)

The facilities are located on the APUS University campus.

15A. Nearest city or town:	16A. County:	17A. UTM Coordinates:
Charles Town, WV	Jefferson	Northing (KM): 4352201 Easting (KM): 253656 Zone: 18S

18A. Briefly describe the proposed new operation or change (s) to the facility:	19A. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits):
Two emergency generators installed to ensure uninterrupted campus operations.	Latitude: 39.29227 Longitude: -77.86270

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

11B. Name of 1st alternate operating site:	12B. Address of 1st alternate operating site:
_____	Mailing:_____ Physical:_____

13B. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? **X YES** **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 2nd alternate operating site:	12C. Address of 2nd alternate operating site: Mailing:_____ Physical:_____

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): 435201 Easting (KM): 253656 Zone: 18S
18C. Briefly describe the proposed new operation or change (s) to the facility: Two emergency generators installed to ensure continual campus operations		19C. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: 39.29227 Longitude: -77.86270

20. Provide the date of anticipated installation or change: ____/____/____ X If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen: : 6/15/2012 = EG1 (Bldg 393) 5/15/2012 = EG2 (Bldg 303)	21. Date of anticipated Start-up if registration is granted: 9/23/2012 = EG1 (Bldg 393) 9/23/2015 = EG2 (Bldg 303)

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). Scheduled Testing EG1 (Bldg 393 ea. Monday 6-6:30AM) Scheduled Testing EG2 (Bldg 303 ea. Monday 6:30-7 AM)

Hours per day____1____ Days per week ____1____ Weeks per year _____ Percentage of operation _____

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.

X ATTACHMENT A : CURRENT BUSINESS CERTIFICATE
X ATTACHMENT B: PROCESS DESCRIPTION
X ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS
X ATTACHMENT D: PROCESS FLOW DIAGRAM
X ATTACHMENT E: PLOT PLAN
X ATTACHMENT F: AREA MAP
X ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM
X ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS
X ATTACHMENT I: EMISSIONS CALCULATIONS
X ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT
X ATTACHMENT K: ELECTRONIC SUBMITTAL
X ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE
X 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) Michael E White VP Tax Facilities Budgets *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 _____ 8-30-2016
(please use blue ink) Responsible Official Date

Name & Title _____
(please print or type)

Signature _____ 8-30-2016
(please use blue ink) Authorized Representative (if applicable) Date

Applicant's Name Michael Gunia

Phone & Fax 304-724-3856 304-724-0950
Phone Fax

Email Mgunia@agus.edu

Date of Last Application Revision 10/18/2013

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:
AMERICAN PUBLIC UNIVERSITY SYSTEM INC
111 W CONGRESS ST
CHARLES TOWN, WV 25414-1621

BUSINESS REGISTRATION ACCOUNT NUMBER: 1005-7224

This certificate is issued on:

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 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
L1967545472

American Public University System

111 West Congress Street

Charles Town, WV 25414-1621

Section III. Attachments and Supporting Documents

Attachment B – Process Description

Both EG1 (located at building 393) and EG2 (located at building 303) have scheduled equipment checks on a quarterly basis, specifically during the months of January, March, June, and September.

American Public University System

111 West Congress Street

Charles Town, WV 25414-1621

Section III. Attachments and Supporting Documents

Attachment C – Description of Fugitive Emissions

There are no fugitive emissions associated with the generators.

American Public University System

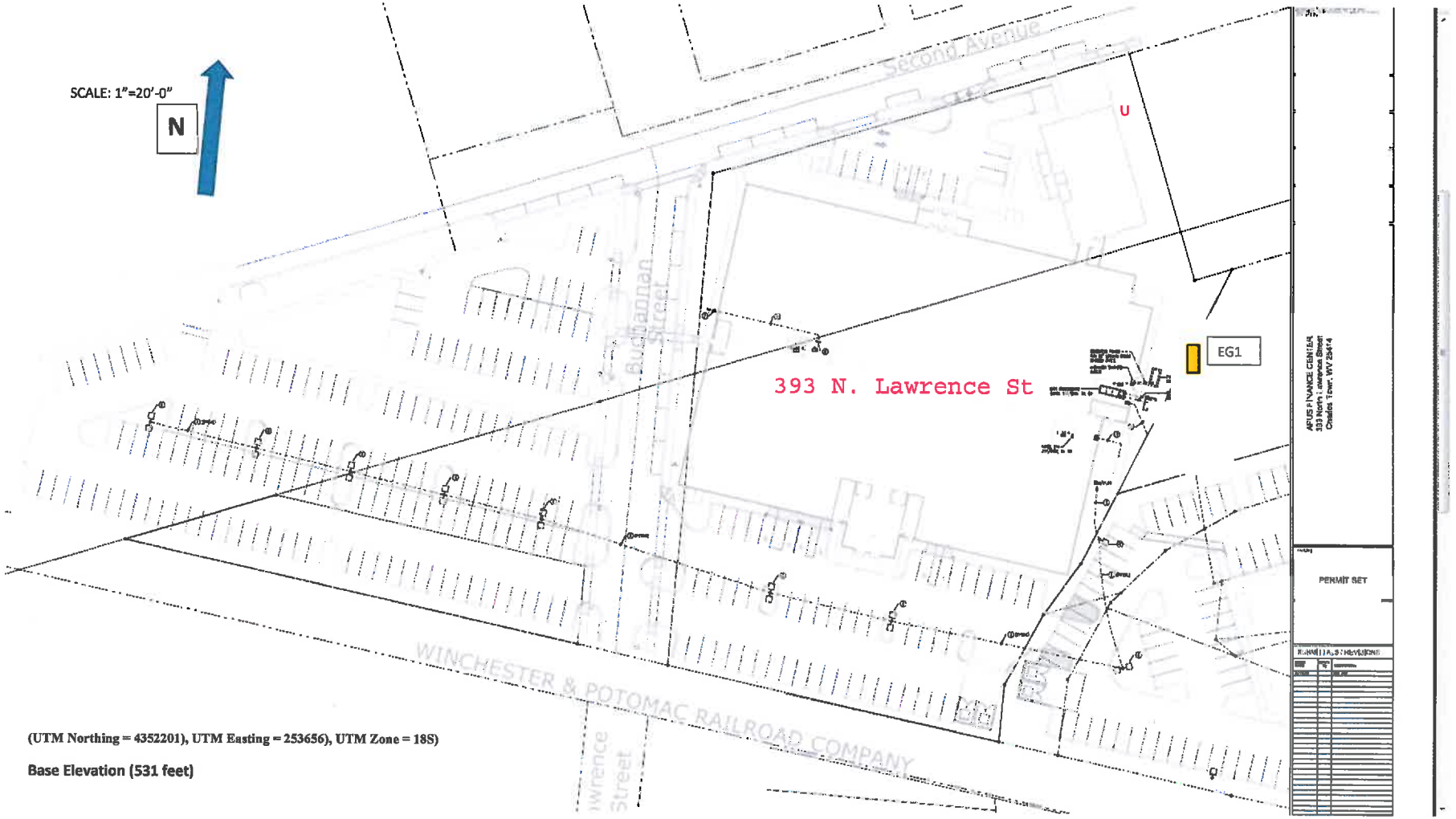
111 West Congress Street

Charles Town, WV 25414-1621

Section III. Attachments and Supporting Documents

Attachment D – Process Flow Diagram

There are no process flow diagrams associated with the generators.



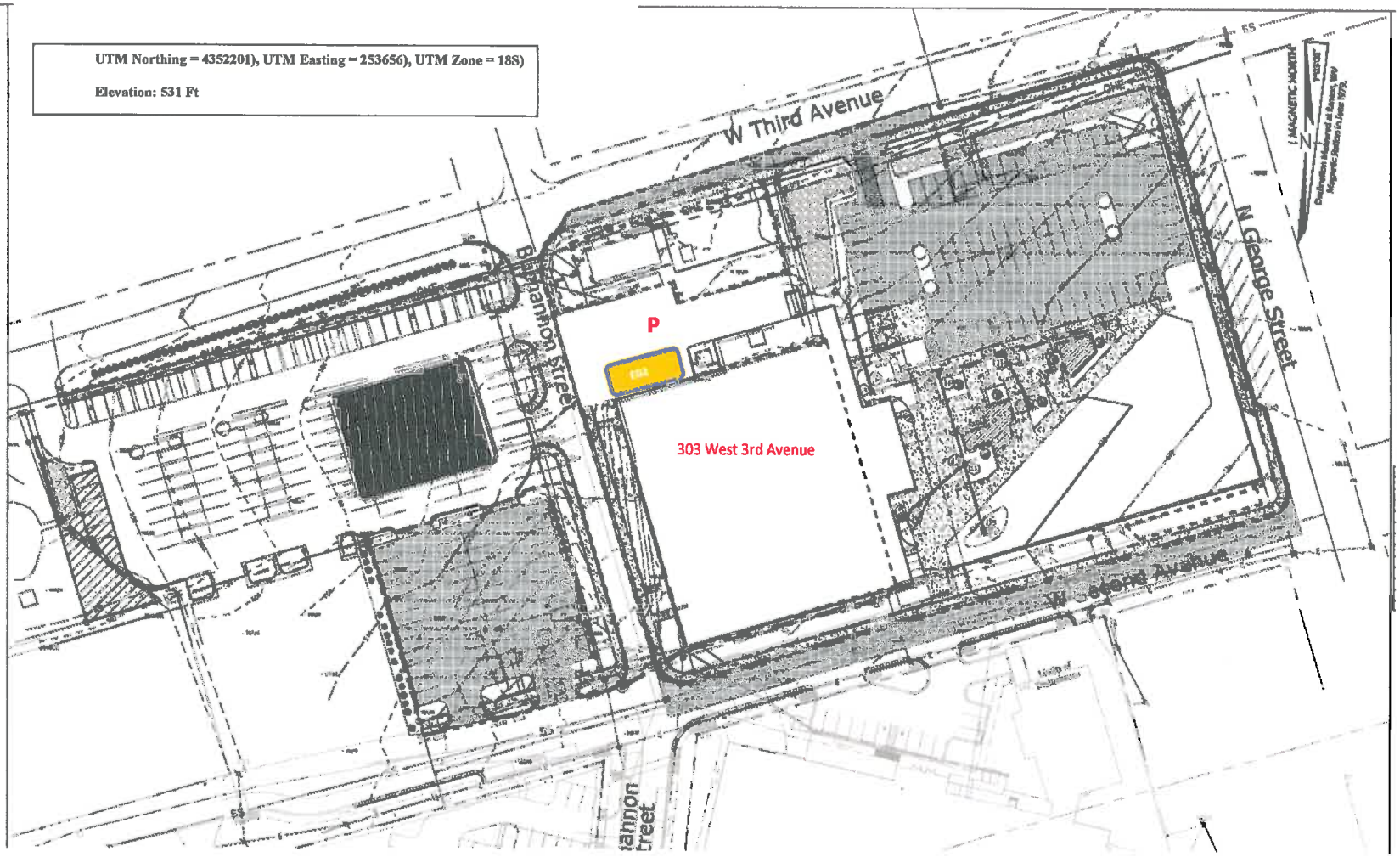
(UTM Northing = 4352201), UTM Easting = 253656), UTM Zone = 18S)

Base Elevation (531 feet)

393 North Lawrence Street, Charles Town, WV

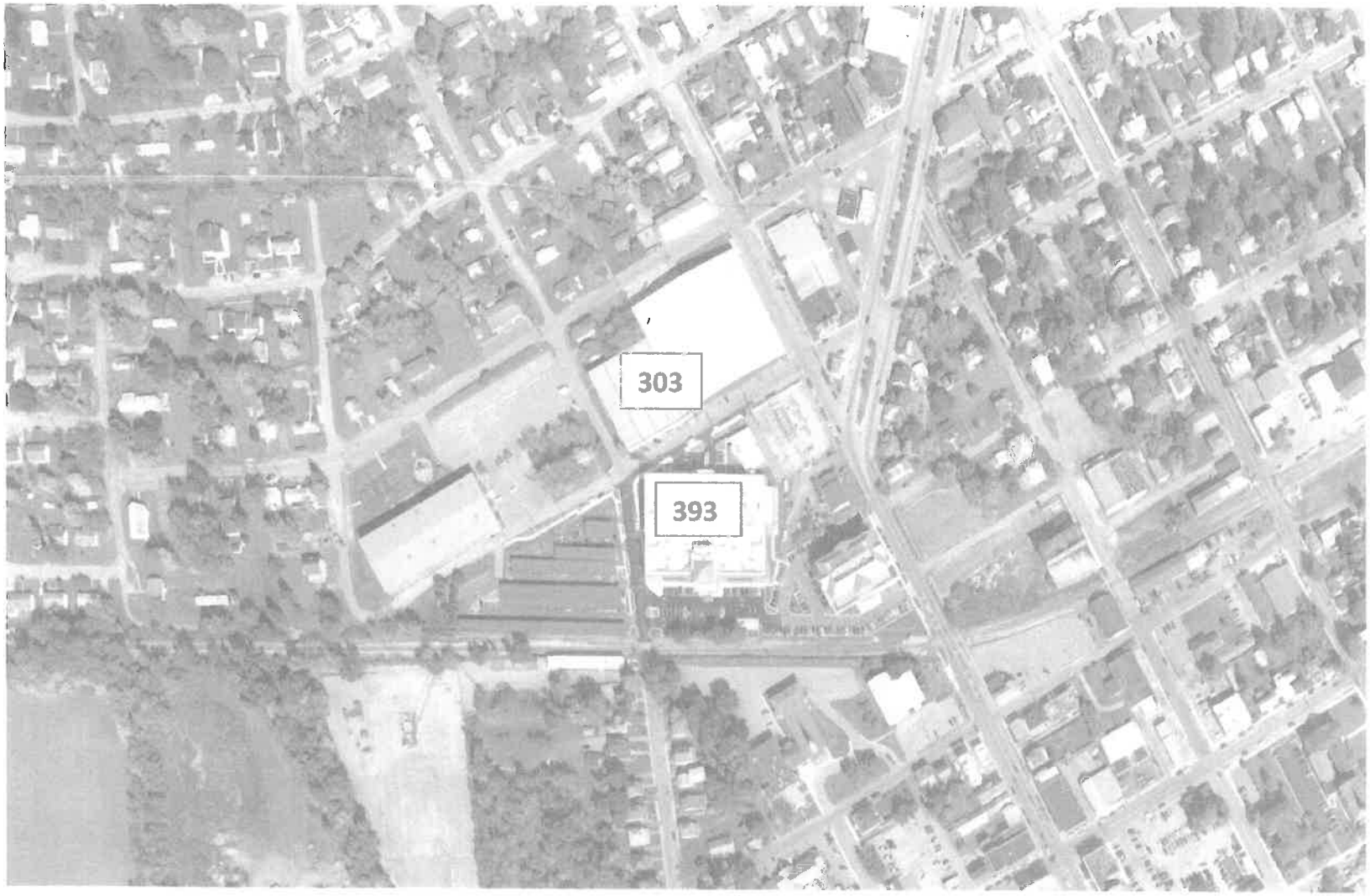
UTM Northing = 4352201), UTM Easting = 253656), UTM Zone = 18S)

Elevation: 531 Ft



City of Ranson
JEFFERSON COUNTY, WEST VIRGINIA

303 West Third Avenue, Ranson,WV


303
393

YOUR TRIP TO:
25414, WV

5 HR 17 MIN | 295.4 MI

Start of next leg of route

1. Start out going **north** on S Park Rd toward Glen Cove Dr.

Then 1.16 miles — 1.16 total miles

2. Turn **right** onto Maccorkle Ave SE/WV-61.

Maccorkle Ave SE is 0.1 miles past Chesterfield Ave.

If you are on 33rd St SE and reach Noyes Ave you've gone a little too far.

Then 0.22 miles — 1.38 total miles

3. Turn **left** onto 36th St SE.

36th St SE is just past 35th St SE.

Sicilia's Pizzeria is on the corner.

If you are on WV-61 and reach 37th St SE you've gone a little too far.

Then 0.22 miles — 1.60 total miles

4. 36th St SE becomes Kanawha City Bridge.

Then 0.18 miles — 1.78 total miles

5. Merge onto I-64 W/I-77 N.

Then 2.66 miles — 4.44 total miles

6. Keep **right** to take I-77 N toward **I-79/Parkersburg**.

Then 1.89 miles — 6.33 total miles

7. Keep **right** to take I-79 N via EXIT 104 toward **Clarksburg**.

Then 97.85 miles — 104.18 total miles

8. Take the **US-33/US-119** exit, EXIT 99, toward **Buckhannon/Weston**.

Then 0.27 miles — 104.45 total miles

9. Keep **right** to take the ramp toward **Buckhannon/Elkins**.

Then 0.13 miles — 104.58 total miles

10. Merge onto US-33 **E**.

Then 35.22 miles — 139.80 total miles

11. Stay **straight** to go onto US-219 N.

Then 4.81 miles — 144.61 total miles

12. Turn **right** to stay on US-219 N.

Then 0.23 miles — 144.83 total miles

13. Turn **slight left** onto US-219 N/County Hwy-7/Clifton-Nail Run.

Then 0.20 miles — 145.04 total miles

14. Take the 1st **right** onto US-219 N.

If you are on County Hwy-7 and reach County Hwy-3/3 you've gone about 0.5 miles too far.

Then 14.75 miles — 159.79 total miles

15. Turn **right** onto 1st St/US-219 N/WV-72.

Little Andi's Restaurant is on the right.

If you are on Chestnut St and reach 2nd St you've gone a little too far.

Then 0.41 miles — 160.20 total miles

16. Turn **right** onto Pennsylvania Ave/US-219 N/WV-72. Continue to follow **US-219 N**.

Performance Motor Sales Inc is on the corner.

Then 13.30 miles — 173.51 total miles

17. Turn **right** onto WV-32/Spruce St. Continue to follow WV-32.

Then 2.18 miles — 175.69 total miles

G60-C REGISTRATION APPLICATION FORMS

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.)*	☐
Section 6	Tanks	☐
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)	☐

* **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-1		EG-2			
Engine Manufacturer and Model		Mitsubishi		Mitsubishi			
Manufacturer's Rated bhp/rpm		617@1800		1528@1800			
Date Installed/Modified/Removed[3]		NS		NS			
Source Status							
Engine Manufactured/Reconstruction Date[4]							
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart IIII? (Yes or No)[5]		Yes		YES			
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart JJJJ? (Yes or No)[6]		--		--			
Engine, Fuel and Combustion Data	Engine Type[7]	LB4S		LB4S			
	APCD Type[8]	--		--			
	Fuel Type[9]	2FO		2FO			
	H_2S (gr/100 scf)	0		0			
	Operating bhp/rpm	617		1528			
	BSFC (Btu/bhp-hr)	--		--			
	Fuel throughput (ft^3/hr)	--		--			
	Fuel throughput ($MMft^3$/yr)	--		--			
	Operation (hrs/yr)	500 (potential)		500 potential			
Reference[10]	Potential Emissions[11]	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
MD	NO_X	3.344	0.836	13.46	3.365		
MD	CO	0.61	0.153	1.51	0.38		
MD	VOC	0.1	0.025	1.41	0.353		
MD	SO_2	1.26	0.3162	3.133	0.7833		
MD	PM_{10}	0.1	0.025	0.43	0.11		
AP*	Formaldehyde	0.29	0.0725	0.71	0.177		

*Used aldehydes as surrogate

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™	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]
T01	EXIST	2FO	650		285	HORZ	2.9
T02	NEW	2FO	5525		N/A	HORZ	

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) G60-C				
	Potential Emissions (lbs/hr)					Potential Emissions (tons/yr)				
Source ID No.	NO_X	CO	VOC	SO_2	PM_{10}	NO_X	CO	VOC	SO_2	PM_{10}
EG-1	3.344	0.61	0.1		0.1	0.836	0.153	0.025		0.025
EG-2	13.46	1.51	1.41		0.43	3.365	0.38	0.353		0.11
Total										

EMERGENCY GENERATOR EMISSION SUMMARY SHEET FOR HAZARDOUS/TOXIC POLLUTANTS

Emergency Generator Location:

Registration Number (Agency Use) **G60-C**

	Potential Emissions (lbs/hr)						Potential Emissions (tons/yr)					
Source ID No.	Benzene	Ethyl-benzene	Toluene	Xylenes	n-Hexane	Formalde-hyde	Benzene	Ethyl-benzene	Toluene	Xylenes	n-Hexane	Formalde-hyde
EG-1												
EG-2												
Total												

American Public University System

111 West Congress Street

Charles Town, WV 25414-1621

Section III. Attachments and Supporting Documents

Attachment H –Air Pollution Control Device Data Sheet

This information is not required for General Permit G60-C.

Kirk, Sherry

From: Coccari, Gene M <Gene.M.Coccari@wv.gov>
Sent: Tuesday, February 02, 2016 11:42 AM
To: Kirk, Sherry
Subject: RE: APUS Emergency Generator Emissions Calculations

Categories: Purple Category, Red Category

Hello-
Thank you for the information on the two emergency generators located at American Public University System's Charles Town, WV campus. I took the information provided on each engine's "Emission Data Sheet" and converted the emission amounts listed below. This e-mail, the "Emission Data Sheets," and the Certificates of Conformity (which shows that each engine complies with the federal rule outlined in Subpart IIII) should all be included in the emissions calculation section of the general permit.

The emissions for the 400 kW emergency generator outlined are as follows, which when multiplied by the 460 kW engine output and divided by 454 gm/lb yields emissions in pounds per hour (PPH):

NOx = 3.3 gm/kW-hr * 460 kW ÷ 454 gm/lb = 3.344 PPH
CO = 0.6 gm/kW-hr * 460 kW ÷ 454 gm/lb = 0.61 PPH
PM = 0.1 gm/kW-hr * 460 kW ÷ 454 gm/lb = 0.1 PPH
VOCs* = 0.1 gm/kW-hr * 460 kW ÷ 454 gm/lb = 0.1 PPH

These amounts are multiplied by 500 hr/yr (the yearly potential allowed for emergency generators) and divided by 2000 lb/ton to derive yearly emissions in tons per year (TPY):

NOx = 3.344 PPH * 500 hr/yr ÷ 2000 lb/ton = 0.836 TPY
CO = 0.61 PPH * 500 hr/yr ÷ 2000 lb/ton = 0.153 TPY
PM = 0.1 PPH * 500 hr/yr ÷ 2000 lb/ton = 0.025 TPY
VOCs = 0.1 PPH * 500 hr/yr ÷ 2000 lb/ton = 0.025 TPY

The emissions for the 900 kW emergency generator outlined are as follows, which when multiplied by the 1140 kW engine output and divided by 454 gm/lb yields emissions in pounds per hour (PPH):

NOx = 5.36 gm/kW-hr * 1140 kW ÷ 454 gm/lb = 13.46 PPH
CO = 0.6 gm/kW-hr * 1140 kW ÷ 454 gm/lb = 1.51 PPH
PM = 0.17 gm/kW-hr * 1140 kW ÷ 454 gm/lb = 0.43 PPH
VOCs* = 0.56 gm/kW-hr * 1140 kW ÷ 454 gm/lb = 1.41 PPH

These amounts are multiplied by 500 hr/yr (the yearly potential allowed for emergency generators) and divided by 2000 lb/ton to derive yearly emissions in tons per year (TPY):

NOx = 13.46 PPH * 500 hr/yr ÷ 2000 lb/ton = 3.365 TPY
CO = 1.51 PPH * 500 hr/yr ÷ 2000 lb/ton = 0.38 TPY
PM = 0.43 PPH * 500 hr/yr ÷ 2000 lb/ton = 0.11 TPY
VOCs = 1.41 PPH * 500 hr/yr ÷ 2000 lb/ton = 0.353 TPY

For each pollutant, adding the two amounts will give you the figures to list in the legal advertisement. Given the location of the facility, it should be eligible for DAQ's "Emergency Generator Class II General Permit Number G60-C," which can be downloaded at:

http://www.dep.wv.gov/daq/permitting/Pages/airgeneralpermit.aspx

Take a look at the general permit and the emissions calculated and let me know if this approach is satisfactory. Thank you.
*HC or Hydrocarbons used as a surrogate for VOCs

Gene M. Coccari
Environmental Resource Analyst
WV Department of Environmental Protection
Small Business Assistance Program
601 57th Street, SE
Charleston, WV 25304
gene.m.coccari@wv.gov
ph: (304) 926-0499 ext. 1245
fax: (304) 926-0479

From: Kirk, Sherry [mailto:SKirk@APUS.EDU]
Sent: Tuesday, February 02, 2016 9:15 AM
To: Coccari, Gene M <Gene.M.Coccari@wv.gov>
Cc: Dilley, Mel <MDilley@APUS.EDU>
Subject: APUS Bldg 393-400kW

Good morning Mr. Coccari,

I hope you weathered well through the blizzard last week. I want to thank you for taking the time to answer my questions during our recent phone conversation regarding general permit G60-C for our two emergency generators located at our Charles Town, West Virginia headquarters.

Per your suggestion, I am sending two emails, one for each generator (bldg. 393 and 303) with corresponding emission data sheets, EPA certificate of conformity, and model detail information for each unit. I appreciate your offer to review these documents and run calculations for us in order to fill out the G60-C, Section G(Affected Source Sheets-section applicability form found on page 15) and Section I (Emissions Calculations).

Also per our phone conversation, once we complete the other portions of the permit, I will also forward it for your review to ensure it meets the WV Department of Environmental Protection requirements before final package and payment submission.

We appreciate your expertise in this matter.

Regards,

Sherry Kirk | Facilities Records & Operations Specialist, Facilities

American Public University System
American Military University | American Public University
10110 Battleview Parkway, Suite 114, Manassas, VA 20109
T 703-334-4737 | skirk@apus.edu | www.apus.edu

EG1 (Bldg 393)

KOHLER. POWER SYSTEMS

400REOZJ

60 HZ. DIESEL INDUSTRIAL GENERATOR SET
EMISSION DATA SHEET

ENGINE INFORMATION

Model:	John Deere, 6135HF485S	Bore:	132mm (5.2 in.)
Nameplate BPH @ 1800 RPM:	617	Stroke:	165mm (6.5 in.)
Type:	4-Cycle, 6 Cylinder, Inline	Displacement:	13.5 L (824 cu. in.)
Aspiration:	Turbocharged, Charge Air-Cooled		
Compression Ratio	16.0:1	EPA Family:	CJDXL13.5103
		EPA Certificate:	CJDXL13.5103-020

Table 1

PERFORMANCE DATA:	1/4 Standby	1/2 Standby	3/4 Standby	Full Standby
Engine bkW @ Stated Load	115.00	230.00	345.00	460.00
Fuel Consumption (g/kWh)	237.40	211.70	205.70	208.70
Exhaust Gas Flow (m^3/min)				81.00
Exhaust Temperature (°C)				471.00

EXHAUST EMISSION DATA:	Table 2 EPA CERTIFICATE DATA
HC (Total Unburned Hydrocarbons)	0.1
NOx (Oxides of Nitrogen as NO2)	3.3
CO (Carbon Monoxide)	0.6
PM (Particular Matter)	0.10

Values are in g/kWh unless otherwise noted

TEST METHODS AND CONDITIONS

The EPA Certificate Data in Table 2 is a weighted average value per ISO 8528 D2.

Data and specifications subject to change without notice
For further information, please contact Todd Loes at John Deere Power Systems, 319-292-6050

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2012 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: Deere & Company
(U.S. Manufacturer or Importer)

Certificate Number: CJDXL13.5103-020

Effective Date: 10/07/2011

Expiration Date: 12/31/2012

Karl J. Simon, Director
Compliance and Innovative Strategies Division

Issue Date: 10/07/2011

Revision Date: N/A

Model Year: 2012
Manufacturer Type: Original Engine Manufacturer
Engine Family: CJDXL13.5103

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: Engine Design Modification, Electronic/Electric EGR - Cooled, Non-standard Non-After Treatment Device Installed, Smoke Puff Limiter, Electronic Control

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.

The actual engine power may lie outside the limits of the Emissions Power Category shown above. See the certificate application for details.

EGI (Bldg 393)

EG2 (Bldg 303)

KOHLER.
Power Systems

900REOZMD

60 HZ. DIESEL INDUSTRIAL GENERATOR SET
EMISSION DATA SHEET

ENGINE INFORMATION

Model:	Mitsubishi, S12H-Y2PTAW-1	Bore:	150mm (5.91 in.)
Nameplate BPH @ 1800 RPM:	1528	Stroke:	175mm (6.89 in.)
Type:	4-Cycle, 12-V Cylinder	Displacement:	37.11 L (2265 cu.in.)
Aspiration:	Turbocharged	EPA Family:	FMVXL37.1BBA
Compression Ratio	14.5:1	EPA Certificate	FMVXL37.1BBA-010
Emission Control Device	Turbocharged and after cooled		

Table 1

PERFORMANCE DATA:	1/4 Standby	1/2 Standby	3/4 Standby	Full Standby
Engine bkW @ Stated Load	285.00	570.00	855.00	1140.00
Fuel Consupumtion (g/kWh)	242.00	224.00	224.00	211.00
Exhaust Gas Flow (m^3/s)				270.00
Exhaust Temperature (°C)				488.00

EXHAUST EMISSION DATA:	Table 2 EPA CERTIFICATE DATA
HC (Total Unburned Hydrocarbons)	0.56
NOx (Oxides of Nitrogen as NO2)	5.36
CO (Carbon Monoxide)	0.60
PM (Particular Matter)	0.17

Values are in g/kWh

TEST METHODS AND CONDITIONS

Data was recorded during steady-state rated engine speed (± 25 RPM) with full load (± 2%). Pressures,

temperatures, and emission rates were stabilized

Fuel Spec	Type 2-D and ASTM D975 No.2D
Fuel Temperature	37 ± 10 ° C
Intake Temperature	25 ° C
Baro`metic Pressure	100 kPa (29.6 In Hg)
Relative Humidity	30 %
Standard	ISO 8178

The emission data here were taken from a single engine under the test condition shown above.
These data are subjected to instrumentation and engine to engine variabilty.

Data and specifications subject to change without notice
For further information, please contact MENA, 630-268-0750

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

OFFICE OF TRANSPORTATION AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: Mitsubishi Heavy Industries, Ltd. (U.S. Manufacturer or Importer) **Certificate Number:** FMVXL37.1BBA-010	**Effective Date:** 11/17/2014 **Expiration Date:** 12/31/2015	Mary T. Manners Byron J. Bunker, Division Director Compliance Division	**Issue Date:** 11/17/2014 **Revision Date:** N/A

Model Year: 2015 **Manufacturer Type:** Original Engine Manufacturer **Engine Family:** FMVXL37.1BBA	**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:** 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.

EG2 (Bldg 303)

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that American Public University System, Inc. has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a General Permit Registration for emergency generators located at 303 West Third Avenue, Ranson and 393 North Lawrence Street in Charles Town, respectively, each in Jefferson County, West Virginia. The latitude and longitude coordinates of the office building at 303 West Third Avenue are: 39.293464, -77.862603 and the office building located at 393 North Lawrence Street address are 39.290487, -77.86338.

The applicant estimates the potential to collectively discharge the following Regulated Air Pollutants will be:

NOx	4.201	TPY
CO	0.533	TPY
PM	0.135	TPY
VOCs	0.378	TPY

The date of operation began on or about 9/23/2012 for the generator located at 393 North Lawrence Street Charles Town. The date of operation began on or about 9/23/2015 for the generator located at 303 West Third Avenue Ranson. 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 of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.
Dated this the ____day of _____ 2016.

By: American Public University System, Inc.
Michael Gunia
Associate Vice President, Facilities
111 West Congress Street
Charles Town, West Virginia 25414

American Public University System

111 West Congress Street

Charles Town, WV 25414-1621

Section III. Attachments and Supporting Documents

Attachment K – Electronic Submittal

This registration application package contains one printed copy and two electronic CD versions.

American Public University System

111 West Congress Street

Charles Town, WV 25414-1621

Section III. Attachments and Supporting Documents

Attachment L – General Permit Registration Application Fee

A check for $2,000 is enclosed with this registration application to cover the required application fee.

American Public University System

111 West Congress Street

Charles Town, WV 25414-1621

Section III. Attachments and Supporting Documents

Attachment M –Siting Criteria Waiver

The emergency generators will be located more than 300 feet from a public building or dwelling. Therefore, no waiver is required.