Roberts, Daniel P <daniel.p.roberts@wv.gov>

WV DAQ Title V Permit Renewal Application Complete for Pleasants Energy LLC's facility near Waverly, WV

1 message

Roberts, Daniel P <daniel.p.roberts@wv.gov> Fri, Jan 3, 2025 at 3:20 PM
To: timothy.ansell@vistracorp.com
Cc: rebekah.hay@vistracorp.com, "McCumbers, Carrie" <Carrie.McCumbers@wv.gov>

RE: Application Status: Complete

Pleasants Energy, LLC

Waverly, WV

Permit Renewal Application R30-07300022-2025

Mr. Ansell,

Your Title V renewal application for a permit to operate the above referenced facility was received by this Division on November 5, 2024. After review of said application, it has been determined that the application is administratively complete as submitted. Therefore, the above referenced facility qualifies for an Application Shield.

The applicant has the duty to supplement or correct the application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit.

The submittal of a complete application shall not affect the requirement that any source have all **preconstruction permits** required under the rules of the Division.

If during the processing of this application it is determined that additional information is necessary to evaluate or take final action on this application, a request for such information will be made in writing with a reasonable deadline for a response. Until which time as your renewal permit is issued or denied, please continue to operate this facility in accordance with 45CSR30, section 6.3.c. which states: *If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.* This protection shall cease to apply if, subsequent to the completeness determination made pursuant to paragraph 6.1.d. of 45CSR30 and as required by paragraph 4.1.b., the applicant fails to submit by the deadline specified in writing any additional information identified as being needed to process the application.

Please remember, **failure of the applicant to timely submit information required or requested to process the application may cause the Application Shield to be revoked.** Should you have any questions regarding this determination, please call me at (304)926-0499 ext. 41902.

Sincerely,

Daniel P. Roberts
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
(304) 926-0499 ext. 41902
Daniel.p.roberts@wv.gov

Roberts, Daniel P <daniel.p.roberts@wv.gov>

Automatic reply: Pleasants Energy, LLC - Waverly, WV - Permit R30-07300022-2020

1 message

Supplee, Gwendolyn <Supplee.Gwendolyn@epa.gov> Fri, Nov 8, 2024 at 4:32 PM
To: "Roberts, Daniel P" <daniel.p.roberts@wv.gov>

I am out of the office beginning November 6th and will be returning on November 18th. I will not be checking email during this time. I will return your message as soon as possible when I back in the office. For immediate assistance, please contact MaryCate Opila (opila.marycate@epa.gov or 215-814-2041). Thank you!

Roberts, Daniel P <daniel.p.roberts@wv.gov>

Pleasants Energy, LLC - Waverly, WV - Permit R30-07300022-2020

1 message

Roberts, Daniel P <daniel.p.roberts@wv.gov> Fri, Nov 8, 2024 at 4:32 PM
To: "Supplee, Gwendolyn" <Supplee.Gwendolyn@epa.gov>, whapham.joseph@epa.gov, jennifer.vanvlerah@epa.ohio.gov
Cc: "McCumbers, Carrie" <Carrie.McCumbers@wv.gov>

This email serves as notification that on November 1, 2024, the WV DAQ received an application for a Title V minor modification (MM01) for Pleasants Energy, LLC's Waverly WV facility located near Waverly, Pleasants County, WV. This is a minor modification to remove the fuel usage limits from their current permit and instead comply with the tons per year limits placed on the facility. During the most recent stack test (performed August 1 and 3, 2023), it was determined that the emission rates for the uprated turbines are lower than the emission rates used in the original PSD permit application for the uprate. Due to the lowered emission rates, Pleasants Energy could operate for more than their fuel usage limit and still be under their currently permitted emission limits. Thus, Pleasants Energy requests that their fuel usage limit be removed from their operating permit and that they instead comply with the tons per year emission limits.. As a result of this modification, the facility's PTE will *increase* 9.41 TPY for NOx, 6.67 TPY for PM/PM_{10}/$PM_{2.5}$, 9.74 TPY for VOCs, 7.24 TPY for SO_2 and 3.92 TPY for HAPs. If you have any questions or comments about this Title V permit revision application, please contact me at your earliest convenience.

Sincerely,

Dan Roberts

WV Department of Environmental Protection

Division of Air Quality

601 57th Street, SE

Charleston, WV 25304

304-926-0499 ext. 41902

daniel.p.roberts@wv.gov

Roberts, Daniel P <daniel.p.roberts@wv.gov>

Pleasants renewal

1 message

Mink, Stephanie R <stephanie.r.mink@wv.gov> Wed, Nov 6, 2024 at 11:01 AM
To: Daniel P Roberts <daniel.p.roberts@wv.gov>

Here's the dated copy of the Pleasants renewal ap.

Have a great day!

--

Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection

Division of Air Quality, Title V & NSR Permitting

601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281

R30-07300022-2025 Pleasants renewal - Dan.pdf
3009K

Roberts, Daniel P <daniel.p.roberts@wv.gov>

WV DAQ Title V Permit Application Status for Pleasants Energy LLC; Waverly

1 message

Mink, Stephanie R <stephanie.r.mink@wv.gov> Wed, Nov 6, 2024 at 10:40 AM
To: timothy.ansell@vistracorp.com, Rebekah.Hay@vistracorp.com, peter.homnick@vistracorp.com
Cc: Carrie McCumbers <carrie.mccumbers@wv.gov>, Daniel P Roberts <daniel.p.roberts@wv.gov>

RE: Application Status

Pleasants Energy, LLC

Waverly

Facility ID No. 073-00022

Application No. R30-07300022-2025

Dear Mr. Ansell,

Your application for a Title V Permit Renewal for Pleasants Energy, LLC's Waverly Facility was received by this Division on November 5, 2024, and was assigned to Dan Roberts.

Should you have any questions, please contact the assigned permit writer, Dan Roberts, at 304-926-0499, extension 41902, or Daniel.P.Roberts@wv.gov .

--

Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection

Division of Air Quality, Title V & NSR Permitting

601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281

Roberts, Daniel P <daniel.p.roberts@wv.gov>

Pleasants MM01

1 message

Mink, Stephanie R <stephanie.r.mink@wv.gov> Mon, Nov 4, 2024 at 9:13 AM
To: Daniel P Roberts <daniel.p.roberts@wv.gov>

Good morning Dan,

Here's a dated copy of the applications for Pleasants-Waverly.

Have a great day!

--

Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection

Division of Air Quality, Title V & NSR Permitting

601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281

R30-07300022-2020 (MM01) Pleasants MM01app-Dan.pdf
4725K

Received
November 1, 2024
WV DEP/Div of Air Quality

Division of Air Quality Permit Application Submittal

Please find attached a permit application for : Pleasants Energy, LLC; Waverly, WV
[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only): 073-00022
- Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only): R30-07300022-2020

- Type of NSR Application (check all that apply):
  - ☐ Construction
  - ☐ Modification
  - ☐ Class I Administrative Update
  - ☑ Class II Administrative Update
  - ☐ Relocation
  - ☐ Temporary
  - ☐ Permit Determination

- Type of 45CSR30 (TITLE V) Revision (if any)**:
  - ☐ Title V Initial
  - ☐ Title V Renewal
  - ☐ Administrative Update
  - ☑ Minor Modification
  - ☐ Significant Modification
  - ☐ Off Permit Change

If any box above is checked, include the Title V revision information as ATTACHMENT S to this application.

- Payment Type:
  - ☐ Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
  - ☐ Check (Make checks payable to: WVDEP – Division of Air Quality)
    Mail checks to:
    WVDEP – DAQ – Permitting
    Attn: NSR Permitting Secretary
    601 57th Street, SE
    Charleston, WV 25304

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.

- If the permit writer has any questions, please contact (all that apply):
  - ☐ Responsible Official/Authorized Representative
    - Name:
    - Email:
    - Phone Number:
  - ☑ Company Contact
    - Name: Peter Homnick
    - Email: Peter.Homnick@vistracorp.com
    - Phone Number: 570-574-5025
  - ☐ Consultant
    - Name:
    - Email:
    - Phone Number:

Timothy Ansell
Plant Manager
Timothy.Ansell@vistracorp.com
Pleasants Energy, LLC.

10319 South Pleasants Highway
St. Mary's, WV 26170
T 740-984-3111
F 740-984-3111

November 1, 2024

Steve Pursley
Engineer
WVDEP – Division of Air Quality – Permitting
601 57th Street, SE
Charleston, WV 25304

Re: Pleasants Energy, LLC Class II Administrative Amendment
Permit Number: R14-0034A

Dear Mr. Pursley:

Pleasants Energy, LLC (Pleasants Energy or facility), located in Waverly, West Virginia, Is submitting this minor modification application to remove the natural gas limit in Permit to Modify R14-0034A, which was then incorporated into Title V permit number R30-07300022-2020. Pleasants Energy installed two simple-cycle GE 7FA combustion turbines at the facility in 2001. In January 2017, Pleasants Energy also received a Prevention of Significant Deterioration (PSD) air construction permit to lift the original synthetic minor source limits and increase both natural gas and fuel oil (ultra-low sulfur diesel) operation for the two combustion turbines. Since the synthetic minor source limits were lifted, the facility required a PSD permit as if a permit never originally existed for the combustion turbines.

Pleasants Energy then performed an uprate on the combustion turbines. This uprate modified the combustion turbines from the 7FA.03 configuration to the 7FA.04 configuration and increased output during the summer peak season. Pleasants Energy received a PSD air construction permit for the uprate (R14-0034A) and now operates under Title V permit number R30-07300022-2020.

Pleasants Energy requests to remove the fuel usage limits from their current permit and instead comply with the tons per year limits placed on the facility. The current permit limits combustion turbines GT1 and GT2 (combined) to 19,082 x 10^6 standard cubic feet per year (scf/yr) of natural gas cumulatively on a rolling 12-month basis. In addition, the natural gas limit is decreased by 889 cubic feet of natural gas per each gallon of fuel oil combusted. The combustion turbines are also limited to 8,410,714 gallons of fuel oil combusted per year.

During the most recent stack test (performed August 1 and 3, 2023), it was determined that the emission rates for the uprated turbines are lower than the emission rates used in the original PSD permit application for the uprate. Due to the lowered emission rates, Pleasants Energy could operate for more than their fuel usage limit and still be under their currently permitted emission limits. Thus, Pleasants Energy requests that their fuel usage limit be removed from their operating permit and that they instead comply with the tons per year emission limits.

Table 1 displays the updated emissions from the combustion turbines. These emissions were calculated using the emission rates determined by the most recent stack test. Based on the expected annual operation, Pleasants

Energy requests slight increases in the total tons per year values (below the major modification thresholds), as seen in Table 1. There will be no pound per hour increase in emissions.

Table 1: Combustion Turbine (both) Emissions

Pollutant	Permitted Emissions (tons per year)	Updated Emissions (tons per year)	Change in Emissions (tons per year)
NO_x	464.6	474	9.4
CO	471.08	471.08	0
VOC	20.26	30	9.74
$PM/PM_{10}/PM_{2.5}$	83.33	90	6.67
SO_2	13.76	21	7.24
Total HAPs	5.26	8.73	3.74

(a) NO_x = nitrogen oxide, CO = carbon monoxide, VOC = volatile organic compounds, PM = particulate matter, PM_{10} = particulate matter 10 microns in diameter, $PM_{2.5}$ = particulate matter 2.5 microns in diameter, SO_2 = sulfur dioxide, HAPs = hazardous air pollutants

Heat input and stack test rates (or best available data) will be used to determine compliance with the emission limits.

This Class II Administrative Amendment and Minor Modification includes the following documents in addition to the main facility NSR Permit and Title V Permit Revision form:

- Attachment E: Plot Plan
- Attachment F: Detailed Process Flow Diagrams
- Attachment N: Supporting Emission Calculations
- Attachment S: Title V Permit Revision Information

As WV DEP proceeds with the evaluation process, please contact the following persons with questions or for additional information:

Peter Homnick
Vistra Corporation
Phone: 570-574-5025
peter.homnick@vistracorp.com

Mary Hauner-Davis
Burns & McDonnell
Phone: 816-822-4252
mhauner@burnsmcd.com

Thank you for your time and efforts on this project.

Sincerely,

Ronald Cremeans
Regional VP, Gas Operations

Attachments:
Attachment 1 – Application Forms

Attachment 2 – Emission Calculations

cc: Mary Hauner-Davis, Burns & McDonnell

Attachment E - Plot Plan

Legend

- Fence Line
- Generator Building
- Property Boundary
- Combustion Turbine
- Emergency Generator

NORTH

100 50 0 100

Scale in Feet

BURNS McDONNELL

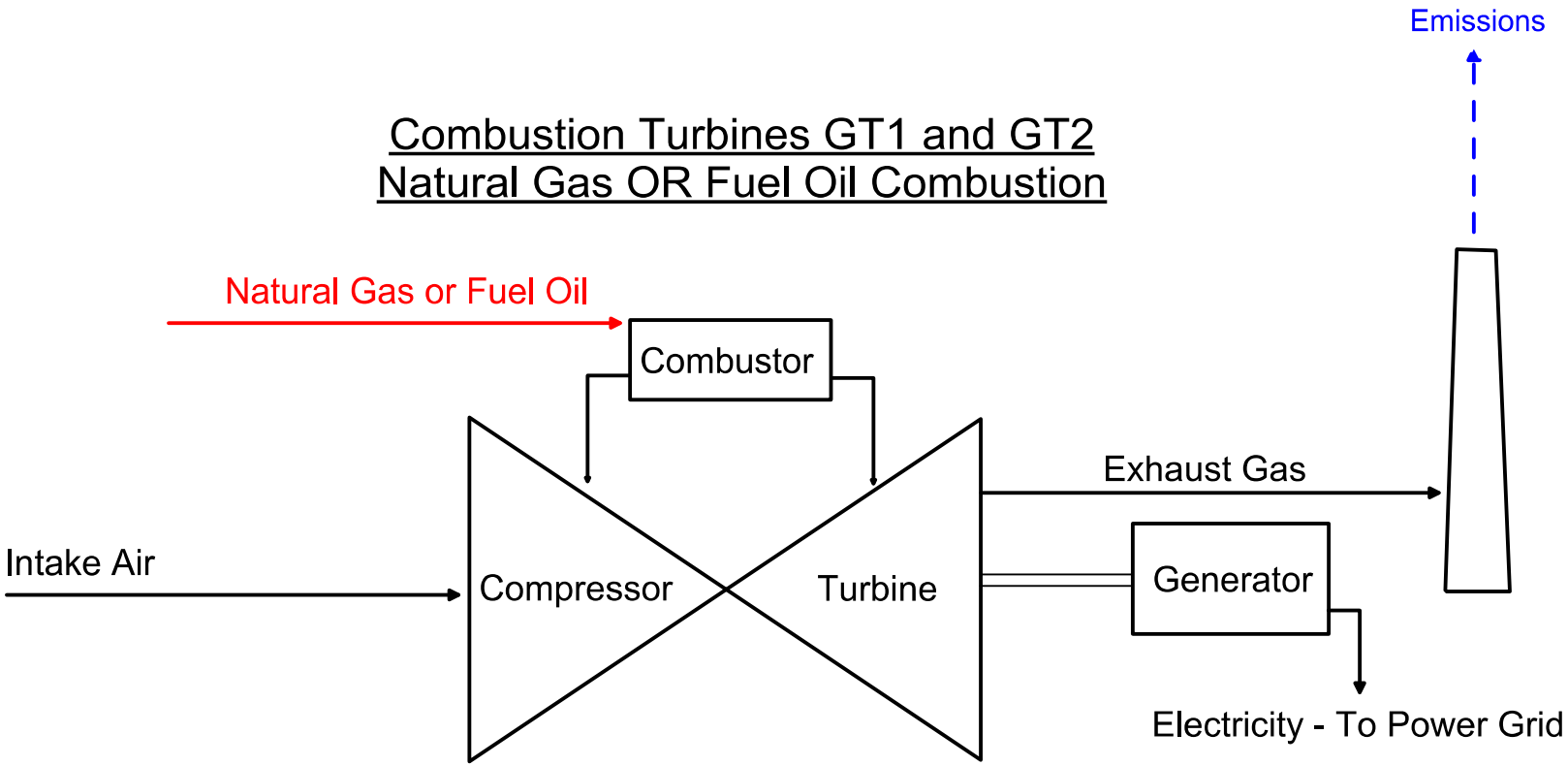
Facility Plot Plan
Pleasants Energy, LLC

Issued: 9/13/2017

Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community and Burns & McDonnell

Attachment F - Process Flow Diagrams

Pleasants Energy, LLC
Combustion Turbine Process Flow Diagram



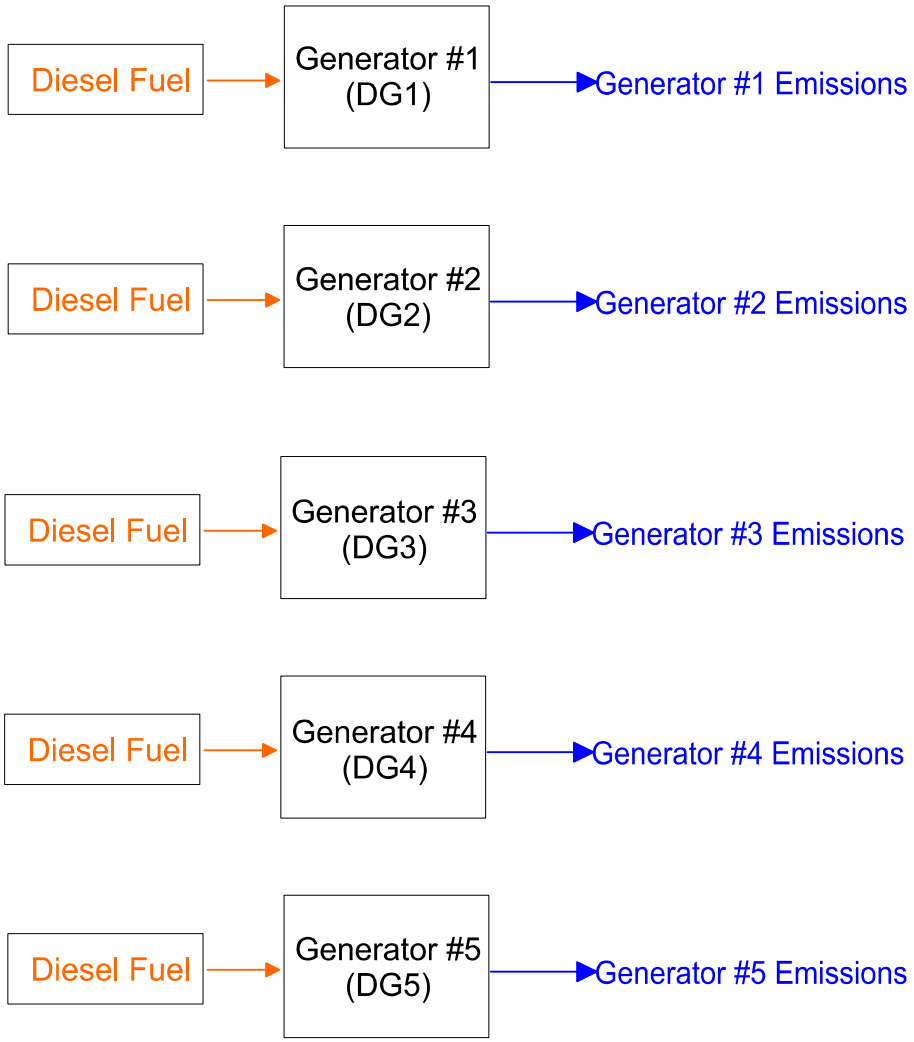
Natural Gas or Fuel Oil

Emissions

BURNS McDONNELL

Combustion Turbine Process Flow Diagram

Pleasants Energy, LLC
Generators Process Flow Diagram



Diesel Fuel

Emissions

BURNS McDONNELL

Generators
Process Flow Diagram

Attachment N - Supporting Emission Calculations

Pleasants Energy, LLC - Minor Permit Modification
Natural Gas Potential Emissions for Turbines 1 & 2

Expected Annual Heat Input (both turbines)	35,622,277.6	MMBtu/yr

Natural Gas Operation Emissions (lb/hr)

Pollutant	Natural Gas Emission Rate (lb/MMBtu)	Updated Annual Emissions (tpy)	Requested Permit Limit (tpy)	Change from Current Permit Limit (tpy)
NO_x[a]	0.0266	473.78	474	9.40
CO[b]	0.0035	62.34	471.08	0
$PM/PM_{10}/PM_{2.5}$[b]	0.0032	57.00	90	6.67
VOC[b]	0.0013	23.15	30	9.74
SO_2	0.0006	10.69	21	7.24
CO_2e[c]	117.64	2,095,298.55	2,095,299	955,721
HAPs[d]	N/A	8.73	8.73	3.47

(a) Average value from CEMS data

(b) Emission rate based on most recent stack test (performed August 1 and 3, 2023)

(c) CO_2e emission rates have not changed since last permit application. Updated PTE is to reflect the updated annual heat input.

(d) See HAP table for individual HAP limits.

Pleasants Energy, LLC - Minor Permit Modification
HAPs Emissions - Combustion Turbines Natural Gas Only Operation

Fuel Usage

Combustion Turbines	MMBtu/yr
Natural Gas Operation (Each) =	35,622,277.6

			Natural Gas- Combustion Turbines		
			Emission Factor[b]	Emissions	
Chemical	**CAS**	**POM?**	**(lb/MMBtu)**	**lb/yr**	**tpy**
Acenaphthene	83-32-9	POM			
Acenaphthylene	203-96-8	POM			
Acetaldehyde	75-07-0		4.0E-05	1,424.89	0.71
Acrolein	107-02-8		6.4E-06	227.98	0.11
Anthracene	120-12-7	POM			
Arsenic					
Benz(a)anthracene	56-55-3	POM			
Benzene	71-43-2		1.2E-05	427.47	0.21
Benzo(a)pyrene	50-32-8	POM			
Benzo(b)fluoranthene	205-99-2	POM			
Benzo(g,h,I)perylene	191-24-2	POM			
Benzo(k)fluoranthene	205-82-3	POM			
Beryllium					
1,3-Butadiene	106-99-0		4.3E-07	15.32	0.01
Cadmium					
Chromium					
Chrysene	218-01-9	POM			
Dibenzo(a,h)anthracene	53-70-3	POM			
Ethyl benzene	100-41-4		3.2E-05	1,139.91	0.57
Fluoranthene	206-44-0	POM			
Fluorene	86-73-7	POM			
Formaldehyde	500-00-0		2.0E-04	7,195.70	3.60
Indeno(1,2,3-cd)pyrene	193-39-5	POM			
Manganese					
Mercury					
Naphthalene	91-20-3		1.3E-06	46.31	0.02
Nickel					
PAH			2.2E-06	78.37	0.04
Phenanathrene	85-01-8	POM			
Propylene					
Pyrene	129-00-0	POM			
Selenium					
Toluene	108-88-3		1.3E-04	4,630.90	2.32
Xylene	1330-20-7		6.4E-05	2,279.83	1.14
TOTAL				17,466.67	8.73

(a) Emission factors from AP-42, Section 3.4, 6/1996
(b) Emission factors for combustion turbines from AP-42 Section 3.1, Updated 4/2000. Natural gas formaldehyde emission factor from Sims Roy EPA Memo "Hazardous Air Pollutant (HAP) Emission Control Technology for New Stationary Combustion Turbines" 8/21/2001.

Pleasants Energy, LLC - Minor Permit Modification
Total HAPs

Facility HAPs		
HAP	Maximum Potential Emissions tpy	
Formaldehyde	3.60	Largest HAP
Acetaldehyde	0.71	2nd Largest
Ethyl benzene	0.57	3rd Largest
TOTAL Facility HAPs	9.23	

Chemical	Existing Emissions (5 diesel generators) HAPs tpy	Turbines on Gas Only HAPs tpy	FO & Gas Combination HAPs tpy	Worst-Case Project Emissions HAPs tpy	Worst-Case Facility Emissions HAPs tpy
Acenaphthene	3.35E-05	0.00	0.00	0.00	3.35E-05
Acenaphthylene	6.60E-05	0.00	0.00	0.00	6.60E-05
Acetaldehyde	1.80E-04	0.71	2.50E-01	0.71	0.71
Acrolein	5.64E-04	0.11	4.00E-02	0.11	0.11
Anthracene	8.80E-06	0.00	0.00	0.00	8.80E-06
Arsenic	0.00	0.00	5.91E-03	5.91E-03	5.91E-03
Benz(a)anthracene	4.45E-06	0.00	0.00	0.00	4.45E-06
Benzene	5.55E-03	0.21	1.05E-01	0.21	0.22
Benzo(a)pyrene	1.84E-06	0.00	0.00	0.00	1.84E-06
Benzo(b)fluoranthene	7.87E-06	0.00	0.00	0.00	7.87E-06
Benzo(g,h,I)perylene	3.98E-06	0.00	0.00	0.00	3.98E-06
Benzo(k)fluoranthene	1.56E-06	0.00	0.00	0.00	1.56E-06
Beryllium	0.00	0.00	1.66E-04	1.66E-04	1.66E-04
1,3-Butadiene	0.00	0.01	1.13E-02	1.13E-02	0.01
Cadmium	0.00	0.00	2.58E-03	2.58E-03	2.58E-03
Chromium	0.00	0.00	5.91E-03	5.91E-03	5.91E-03
Chrysene	1.09E-05	0.00	0.00	0.00	1.09E-05
Dibenzo(a,h)anthracene	2.47E-06	0.00	0.00	0.00	2.47E-06
Ethyl benzene	0.00	0.57	2.00E-01	5.70E-01	0.57
Fluoranthene	2.88E-05	0.00	0.00	0.00	2.88E-05
Fluorene	9.15E-05	0.00	0.00	0.00	9.15E-05
Formaldehyde	5.64E-04	3.60	1.41	3.60	3.60
Indeno(1,2,3-cd)pyrene	2.96E-06	0.00	0.00	0.00	2.96E-06
Manganese	0.00	0.00	4.24E-01	0.42	0.42
Mercury	0.00	0.00	6.44E-04	6.44E-04	6.44E-04
Naphthalene	9.30E-04	0.02	2.69E-02	0.03	2.78E-02
Nickel	0.00	0.00	2.47E-03	2.47E-03	2.47E-03
PAH	0.00	0.04	3.52E-02	0.04	3.92E-02
Phenanathrene	2.92E-04	0.00	0.00	0.00	2.92E-04
Propylene	2.00E-02	0.00	0.00	0.00	0.02
Proplylene Oxide	0.00	0.00	0.00	0.00	0.00
Pyrene	2.65E-05	0.00	0.00	0.00	2.65E-05
Selenium	0.00	0.00	1.34E-02	0.01	0.01
Toluene	2.01E-03	2.32	8.13E-01	2.32	2.32
Xylene	1.38E-03	1.14	4.00E-01	1.14	1.14
TOTAL	**0.03**	**8.73**	**3.75**	**9.20**	**9.23**

Attachment S - Title V Permit Revision Information

Attachment S

Title V Permit Revision Information

1. New Applicable Requirements Summary	
Mark all applicable requirements associated with the changes involved with this permit revision:	
☐ SIP	☐ FIP
☐ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☐ NESHAP (45CSR15)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS (Subpart(s)_____)	☐ Section 112(d) MACT standards (Subpart(s)_____)
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☒ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☐ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ Compliance Assurance Monitoring (40CFR64) (1)
☐ NO_x Budget Trading Program Non-EGUs (45CSR1)	☐ NO_x Budget Trading Program EGUs (45CSR26)
(1) If this box is checked, please include **Compliance Assurance Monitoring (CAM) Form(s)** for each Pollutants Specific Emission Unit (PSEU) (See Attachment H to Title V Application). If this box is not checked, please explain why **Compliance Assurance Monitoring** is not applicable:	

2. Non Applicability Determinations
List all requirements, which the source has determined not applicable to this permit revision and for which a permit shield is requested. The listing shall also include the rule citation and a rationale for the determination.
☐ **Permit Shield Requested** *(not applicable to Minor Modifications)*

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

3. Suggested Title V Draft Permit Language

Are there any changes involved with this Title V Permit revision outside of the scope of the NSR Permit revision? ☒ Yes ☐ No If Yes, describe the changes below.

Also, please provide **Suggested Title V Draft Permit language** for the proposed Title V Permit revision (including all applicable requirements associated with the permit revision and any associated monitoring /recordkeeping/ reporting requirements), OR attach a marked up pages of current Title V Permit. Please include appropriate citations (Permit or Consent Order number, condition number and/or rule citation (e.g. 45CSR§7-4.1)) for those requirements being added / revised.

Update Table 4.1.1.1 with new requested tons per year limits for NOx, PM/PM10/PM2.5, and VOC

Update Table 4.1.8 for total HAPs. (See appendix B for emissions calculations and requested limits.)

Remove natural gas limit in Condition 4.1.3. Leave in fuel oil gallons per year limit.

4. Active NSR Permits/Permit Determinations/Consent Orders Associated With This Permit Revision

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
	MM/DD/YYYY	
	/ /	
	/ /	

5. Inactive NSR Permits/Obsolete Permit or Consent Orders Conditions Associated With This Revision

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
	MM/DD/YYYY	
	/ /	
	/ /	

6. Change in Potential Emissions

Pollutant	Change in Potential Emissions (+ or -), TPY
See Appendix B	

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

7. **Certification For Use Of Minor Modification Procedures** ***(Required Only for Minor Modification Requests)***	
Note:	*This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete. The criteria for allowing the use of Minor Modification Procedures are as follows:*

i. Proposed changes do not violate any applicable requirement;

ii. Proposed changes do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

iii. Proposed changes do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient air quality impacts, or a visibility increment analysis;

iv. Proposed changes do not seek to establish or change a permit term or condition for which there is no underlying applicable requirement and which permit or condition has been used to avoid an applicable requirement to which the source would otherwise be subject (synthetic minor). Such terms and conditions include, but are not limited to a federally enforceable emissions cap used to avoid classification as a modification under any provision of Title I or any alternative emissions limit approved pursuant to regulations promulgated under § 112(j)(5) of the Clean Air Act;

v. Proposed changes do not involve preconstruction review under Title I of the Clean Air Act or 45CSR14 and 45CSR19;

vi. Proposed changes are not required under any rule of the Director to be processed as a significant modification;

Notwithstanding subparagraph 45CSR§30-6.5.a.1.A. (items i through vi above), minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in rules of the Director which are approved by the U.S. EPA as a part of the State Implementation Plan under the Clean Air Act, or which may be otherwise provided for in the Title V operating permit issued under 45CSR30.

Pursuant to 45CSR§30-6.5.a.2.C., the proposed modification contained herein meets the criteria for use of Minor permit modification procedures as set forth in Section 45CSR§30-6.5.a.1.A. The use of Minor permit modification procedures are hereby requested for processing of this application.

(Signed): _____ Date: 2024 / 11 / 01
(Please use blue ink) *(Please use blue ink)*

Named (typed): Ronald Cremeans Title: Regional VP, Gas Operations

Note: Please check if the following included (if applicable):

☐	Compliance Assurance Monitoring Form(s)
☐	Suggested Title V Draft Permit Language

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

Title V Redline

4.0 Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Maximum Criteria Pollutant emissions from the facility shall not exceed the limits in Table 4.1.1, except that the turbine hourly limits do not include startup or shutdown. For the purpose of this permit, "startup" is defined as the time to achieve steady-state operation. Startup shall begin in the minute flame is established and shall not exceed 120 minutes (2-hour) duration per event. "Shutdown" is defined as the intent to stop operation of the unit and shall begin from steady-state operation to "no flame". Shutdown shall not exceed 60 minutes (1-hour) duration. Should any startup or shutdown be extended beyond the timelines allotted, the Permittee shall report the extension and reasons for said extension.

Table 4.1.1.1

Source[1]	CO		NO_x		VOCs		$PM_{2.5}/PM_{10}/PM^4$		SO_2	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Turbines[2]	67.8	471.08	137.8	~~464.60~~ 474	6.4	~~20.26~~ 30	31.8	~~83.33~~ 90	5.40	~~13.76~~ 21
Turbines[3]	152.0		940.0		40.0		82.0		6.54	
Generators	125.9	6.29	24.1	1.21	14.39	0.72	3.6	0.18	0.27	0.01
Total	**345.7**	**477.4**	**1102**	**~~465.8~~ 475.21**	**60.79**	**~~20.98~~ 30.72**	**117.4**	**~~83.51~~ 90.18**	**12.21**	**~~13.77~~ 21.01**

[1]Two turbines combined and 5 generators combined.
[2]When firing Natural Gas
[3]When firing Fuel Oil
[4]Includes both filterable and condensable particulate matter

[45CSR14, Permit No. R14-0034 (Condition 4.1.1.)]

4.1.2. The combustion turbines shall not exceed the following emissions for startups and shutdowns:

Table 4.1.2.1: Start-Up & Shut-down Turbine Emission (natural gas operation/per turbine)

Pollutant	Start-Up Emission Rate (lb/hr)	Shut-Down Emission Rate (lb/hr)	Total Emissions Per Event (lbs)
CO	386.33	146.33	918.99
NO_x	125.46	107.22	358.14
PM	18.00	18.00	54.0
PM_{10}			
$PM_{2.5}$			
SO_2	2.70	2.70	8.10
VOCs	7.03	6.39	20.45
GHGs	223,611	223,611	670,833
H_2SO_4	0.41	0.41	1.23

Table 4.1.2.2: Start-Up & Shut-down Turbine Emission (fuel oil operation/per turbine)

Pollutant	Start-Up Emission Rate (lb/hr)	Shut-Down Emission Rate (Ib/hr)	Total Emissions Per Event (lbs)
CO	234.37	199.68	668.42
NO_x	561.64	543.09	1,666.37
PM	41.0	41.0	123.0
PM_{10}			
$PM_{2.5}$			
SO,	3.27	3.27	9.81
VOCs	21.14	20.95	63.23
GHGs	337,813	337,813	1,013,439
Lead	0.03	0.03	0.09
H_2SO_4	0.6	0.6	1.8

[45CSR14, Permit No. R14-0034 (Condition 4.1.2.)]

4.1.3. ~~Combustion turbines (GT1 & GT2) shall not combust more than 19,082 x 10^6 scf/yr of natural gas cumulatively on a rolling 12 month basis. Additionally, whenever fuel oil is combusted, this limit shall be reduced by 889 cubic feet of natural gas for each gallon of fuel oil combusted. However,~~ under no circumstances shall more than 8,410,714 gallons of fuel oil be combusted per year.
[45CSR14, R14-0034 (Condition 4.1.5.)]

4.1.4. When low sulfur distillate fuel oil is fired, water injection shall be utilized to control NO_x emissions.
[45CSR14, Permit No. R14-0034 (Condition 4.1.6.)]

4.1.5. A dry low NO_x combustion system shall be installed, maintained, and operated so as to control NO_x emissions from the combustion turbines (GT1 and GT2) when natural gas is fired.
[45CSR14, Permit No. R14-0034 (Condition 4.1.7.)]

4.1.6. The annual average sulfur content of the low sulfur distillate fuel shall not exceed 15ppm.
[45CSR14, Permit No. R14-0034 (Condition 4.1.8.)]

4.1.7. The annual average sulfur content of the natural gas shall not exceed 0.5 grains per 100 scf.
[45CSR14, Permit No. R14-0034 (Condition 4.1.9.)]

4.1.8. Maximum non criteria pollutant emissions from the facility shall not exceed the following:

Pollutant	Turbines		Generators		Total	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Acetaldehyde	0.15	~~0.39~~ 0.71	-	--	0.15	~~0.39~~ 0.71
Acrolein	0.02	~~0.06~~ 0.11	-	--	0.02	~~0.06~~ 0.11
Benzene	0.05	~~0.12~~ 0.21	0.11	0.01	0.16	~~0.13~~ 0.22
1,3-Butadiene	0.07	0.01	-	--	0.07	0.01
Ethyl Benzene	0.12	~~0.31~~ 0.57	-	--	0.12	~~0.31~~ 0.57
Formaldehyde	0.78	~~1.97~~ 3.60	-	--	0.78	~~1.97~~ 3.60
Manganese	3.2	0.42	-	--	3.2	0.42
Naphthalene	0.14	0.03	-	--	0.14	0.03
PAHs	0.17	0.04	-	--	0.17	0.04
Selenium	0.10	0.01	-	--	0.10	0.01
Toluene	0.50	~~1.27~~ 2.32	-	--	0.50	~~1.27~~ 2.32
Xylene	0.24	~~0.62~~ 1.14	-	--	0.24	~~0.62~~ 1.14
Total HAPs	**5.26**	~~**5.26**~~ **8.73**	**0.65**	**0.03**	**5.91**	~~**5.29**~~ **9.23**
GHGs (CO_2e)	675,625	~~1,139,578~~ 2,095,299	23,401	1,170	699,026	~~1,140,748~~ 2,096,469

[45CSR14, Permit No. R14-0034 (Condition 4.1.4.)]

4.1.9. Stationary combustion turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005, are subject to 4.1.10 and 4.1.13.
[45CSR16; 40 CFR §60.4305(a);45CSR14, Permit No. R14-0034 (Condition 4.1.10.)]

4.1.10. The combustion turbines must meet a NOx emission limit of 42 parts per million (ppm) at 15 percent oxygen or 160 nanogram per Joule (ng/J) of useful output (1.3 pound per megawatt-hour [lb/MW-hr]) on a 30-day average when combusting fuel oil. When combusting natural gas, the combustion turbines must meet a limit of 15 ppm at 15 percent O_2 or 54 ng/J of useful output (0.43 lb/MWh). If the total heat input is greater than or equal to 50 percent natural gas, the turbines must meet the corresponding limit for a natural gas-fired turbine burning that fuel. Similarly, the total heat input is greater than 50 percent distillate

Roberts, Daniel P <daniel.p.roberts@wv.gov>

WV DAQ Title V Permit Application Status for Pleasants Energy LLC; Waverly

1 message

Mink, Stephanie R <stephanie.r.mink@wv.gov> Mon, Nov 4, 2024 at 9:11 AM
To: Peter.Homnick@vistracorp.com
Cc: Carrie McCumbers <carrie.mccumbers@wv.gov>, Daniel P Roberts <daniel.p.roberts@wv.gov>

RE: Application Status

Pleasants Energy, LLC

Waverly

Facility ID No. 073-00022

Application No. R30-07300022-2020 (MM01)

Dear Mr. Homnick,

Your application for a Title V Minor Modification Permit for Pleasants Energy, LLC's Waverly Facility was received by this Division on November 1, 2024, and was assigned to Dan Roberts.

Should you have any questions, please contact the assigned permit writer, Dan Roberts, at 304-926-0499, extension 41902, or Daniel.P.Roberts@wv.gov .

--

Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection

Division of Air Quality, Title V & NSR Permitting

601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281

Roberts, Daniel P <daniel.p.roberts@wv.gov>

Re: Pleasants: Class II Permit Modification

1 message

McCumbers, Carrie <carrie.mccumbers@wv.gov> Mon, Nov 4, 2024 at 7:43 AM
To: Stephanie R Mink <stephanie.r.mink@wv.gov>
Cc: Steven R Pursley <steven.r.pursley@wv.gov>, Joseph R Kessler <joseph.r.kessler@wv.gov>, Daniel P Roberts <daniel.p.roberts@wv.gov>

Stephanie,

Please assign this minor modification to Dan as R30-07300022-2020 (MM01).

Thanks,
Carrie

On Fri, Nov 1, 2024 at 2:28 PM Air Quality Permitting, DEP <depairqualitypermitting@wv.gov> wrote:

> **R13 Class II AU**
> Stephanie, please assign the following Class II AU to Steve Pursley:
>
> **Pleasants Energy LLC**
> **Waverly**
> **R14-0034D**
> **073-00022**
>
> **Attachment S is included**
>
> Application fee is $1,300. Need Affidavit & Business Certificate
>
> Please include the following:
> *"We are accepting this permit application, but please note you must submit the General Application Forms for all permit applications, including Class II Administrative Updates. Please work with the assigned engineer to resubmit a complete application with the these forms included directly to him."*
>
> Thanks,
> Joe
>
> ---------- Forwarded message ---------
> From: **Homnick, Peter** <Peter.Homnick@vistracorp.com>
> Date: Fri, Nov 1, 2024 at 1:08 PM
> Subject: Pleasants: Class II Permit Modification
> To: depairqualitypermitting@wv.gov <depairqualitypermitting@wv.gov>
>
> Good afternoon,
>
> Pleasants Energy LLC is submitting a Class II application (attached).
>
> Please let me know if you have any questions.
>
> Thanks,

Peter Homnick

Director Environmental, NE & CA

90 Plant Rd., PO Box 7

McAdoo, PA 18237

Mobile 570-574-5025

Peter.Homnick@vistracorp.com

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

Received
November 5, 2024
WV DEP/Div of Air Quality

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. Name of Applicant (As registered with the WV Secretary of State's Office):
Pleasants Energy, LLC

2. Facility Name or Location:
10319 South Pleasants Highway
St. Marys, WV 26170

3. DAQ Plant ID No.:
073-00022

4. Federal Employer ID No. (FEIN):
26-3603167

5. Permit Application Type:

☐ Initial Permit — When did operations commence? 12/06/2001
☑ Permit Renewal — What is the expiration date of the existing permit? 12/10/2024
☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☐ Corporation ☐ Governmental Agency ☐ LLC
☐ Partnership ☑ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☑ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

8. Number of onsite employees:
6

9. Governmental Code:

☑ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☑ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.

11. Mailing Address		
Street or P.O. Box: 10319 South Pleasants Highway		
City: St. Marys	**State:** WV	**Zip:** 26170
Telephone Number: (304) 221-4201	**Fax Number:** (304) 662-4218	

12. Facility Location (Physical Address)		
Street: 10319 South Pleasants Highway	**City:** St. Marys	**County:** Pleasants
UTM Easting: 468.629 km	**UTM Northing:** 4353.573 km	**Zone:** ☑ 17 or ☐ 18
Directions: From 1st Street in Waverly, West Virginia, head east on Highway 2, approximately 1 mile from Waverly Street. The facility is located on the south side of Highway 2.		
Portable Source? ☐ Yes ☑ No		
Is facility located within a nonattainment area? ☐ Yes ☑ No		**If yes, for what air pollutants?**
Is facility located within 50 miles of another state? ☑ Yes ☐ No		**If yes, name the affected state(s).** Ohio
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☑ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☑ No		**If yes, name the area(s).**

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

13. Contact Information		
Responsible Official: Timothy Ansell		**Title:** Plant Manager
Street or P.O. Box: 10319 South Pleasants Highway		
City: St. Marys	**State:** WV	**Zip:** 26170
Telephone Number: (740) 984-3111	**Cell Number:** (740) 317-2955	
E-mail address: Timothy.Ansell@vistracorp.com		
Environmental Contact: Rebekah Hay		**Title:** EHS Manager
Street or P.O. Box: 10319 South Pleasants Highway		
City: St. Marys	**State:** WV	**Zip:** 26170
Telephone Number: (606) 831-1331	**Cell Number:** (606) 831-1331	
E-mail address: Rebekah.Hay@vistracorp.com		
Application Preparer: Rebekah Hay		**Title:** EHS Manager
Company: Pleasants Energy, LLC		
Street or P.O. Box: 10319 South Pleasants Highway		
City: St. Marys	**State:** WV	**Zip:** 26170
Telephone Number: (606) 831-1331	**Cell Number:** (606) 831-1331	
E-mail address: Rebekah.Hay@vistracorp.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Simple-cycle combustion turbines	Electricity	221112	4911
Emergency Generators	Electricity	221112	4911

Provide a general description of operations.

The Pleasants Energy LLC facility generates electricity from two simple-cycle combustion turbines. In addition, five emergency generators are used to start the turbines as needed. The combustion turbines combust natural gas with diesel fuel as a backup.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☐ SIP	☐ FIP
☑ Minor source NSR (45CSR13)	☑ PSD (45CSR14)
☑ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☑ Section 111 NSPS Subpart(s) KKKK, IIII	☑ Section 112(d) MACT standards Subpart(s) ZZZZ
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☑ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☐ 45CSR4 State enforceable only rule	☑ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☑ Cross-State Air Pollution Rule (45CSR43)	

19. Non Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.
NSPS, 40 CFR 60, Subpart TTTT. The combustion turbines were installed prior to the applicability date. NESHAP, 40 CFR 63, Subpart YYYY. The Pleasants Energy facility is not a major source of HAPs.
☑ Permit Shield

19. Non Applicability Determinations *(Continued)* - *Attach additional pages as necessary.*

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

☐ Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

☐ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all facility-wide applicable requirements? ☑ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R30-07300022-2020	06/10/2020	All Conditions (Title V)
R14-034C	12/19/2019	All Conditions (Rule 14 PSD)
R13-2373B	11/24/2015	All Conditions (Rule 13 NSR)

22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance MM/DD/YYYY	Permit Condition Number
R30-07300022-2014	12/22/2014	
R14-034B	**03/28/2019**	
R14-034A	**03/13/2018**	
R14-034	**01/23/2017**	
R13-2373A	**01/19/2006**	
R13-2373	**04/26/2000**	

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	477.4
Nitrogen Oxides (NO_X)	465.8
Lead (Pb)	0.0065
Particulate Matter ($PM_{2.5}$)[1]	83.51
Particulate Matter (PM_{10})[1]	83.51
Total Particulate Matter (TSP)	83.51
Sulfur Dioxide (SO_2)	13.8
Volatile Organic Compounds (VOC)	21.0
Hazardous Air Pollutants[2]	Potential Emissions
H2SO4	2.1
Total HAPs	5.3
Regulated Pollutants other than Criteria and HAP	Potential Emissions
CO2e	1,140,748

[1] $PM_{2.5}$ and PM_{10} are components of TSP.
[2] For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)		
☑	1.	Air compressors and pneumatically operated equipment, including hand tools.
☑	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☑	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☑	4.	Bathroom/toilet vent emissions.
☑	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☑	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☐	8.	Boiler water treatment operations, not including cooling towers.
☐	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☐	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☑	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☑	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☑	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☑	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:

24. Insignificant Activities (Check all that apply)		
☐	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☐	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☐	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☐	26.	Fire suppression systems.
☐	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☐	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☐	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☐	33.	Hydraulic and hydrostatic testing equipment.
☐	34.	Indoor or outdoor kerosene heaters.
☐	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☐	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.

24. Insignificant Activities (Check all that apply)		
☐	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
☐	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
☐	43.	Process water filtration systems and demineralizers.
☐	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
☐	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☐	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☐	50.	Space heaters operating by direct heat transfer.
☐	51.	Steam cleaning operations.
☐	52.	Steam leaks.
☐	53.	Steam sterilizers.
☐	54.	Steam vents and safety relief valves.
☐	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
☐	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
☐	57.	Such other sources or activities as the Director may determine.
☐	58.	Tobacco smoking rooms and areas.
☐	59.	Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.
26. Emission Units
For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.
For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.
27. Control Devices
For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

Note: This Certification must be signed by a responsible official as defined in 45CSR§30-2.38.

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. 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.

Responsible official (type or print)

Name:	Title:
Timothy Ansell	Plant Manager

Responsible official's signature:

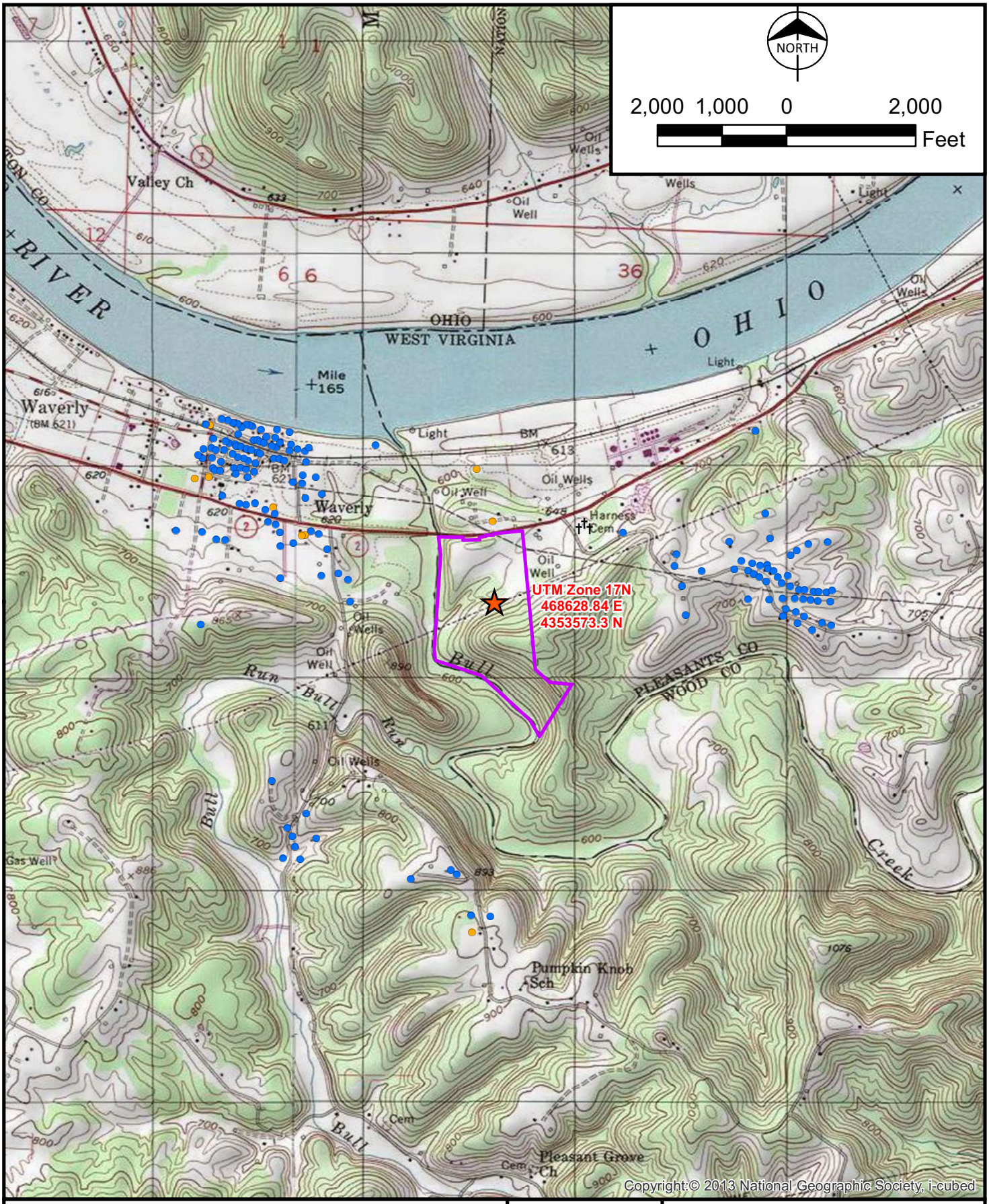
Signature: Timothy Ansell Signature Date: Nov 4, 2024

(Must be signed and dated in blue ink or have a valid electronic signature)

Note: Please check all applicable attachments included with this permit application:

☑	ATTACHMENT A: Area Map
☑	ATTACHMENT B: Plot Plan(s)
☑	ATTACHMENT C: Process Flow Diagram(s)
☑	ATTACHMENT D: Equipment Table
☑	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☑	ATTACHMENT G: Air Pollution Control Device Form(s)
☐	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.



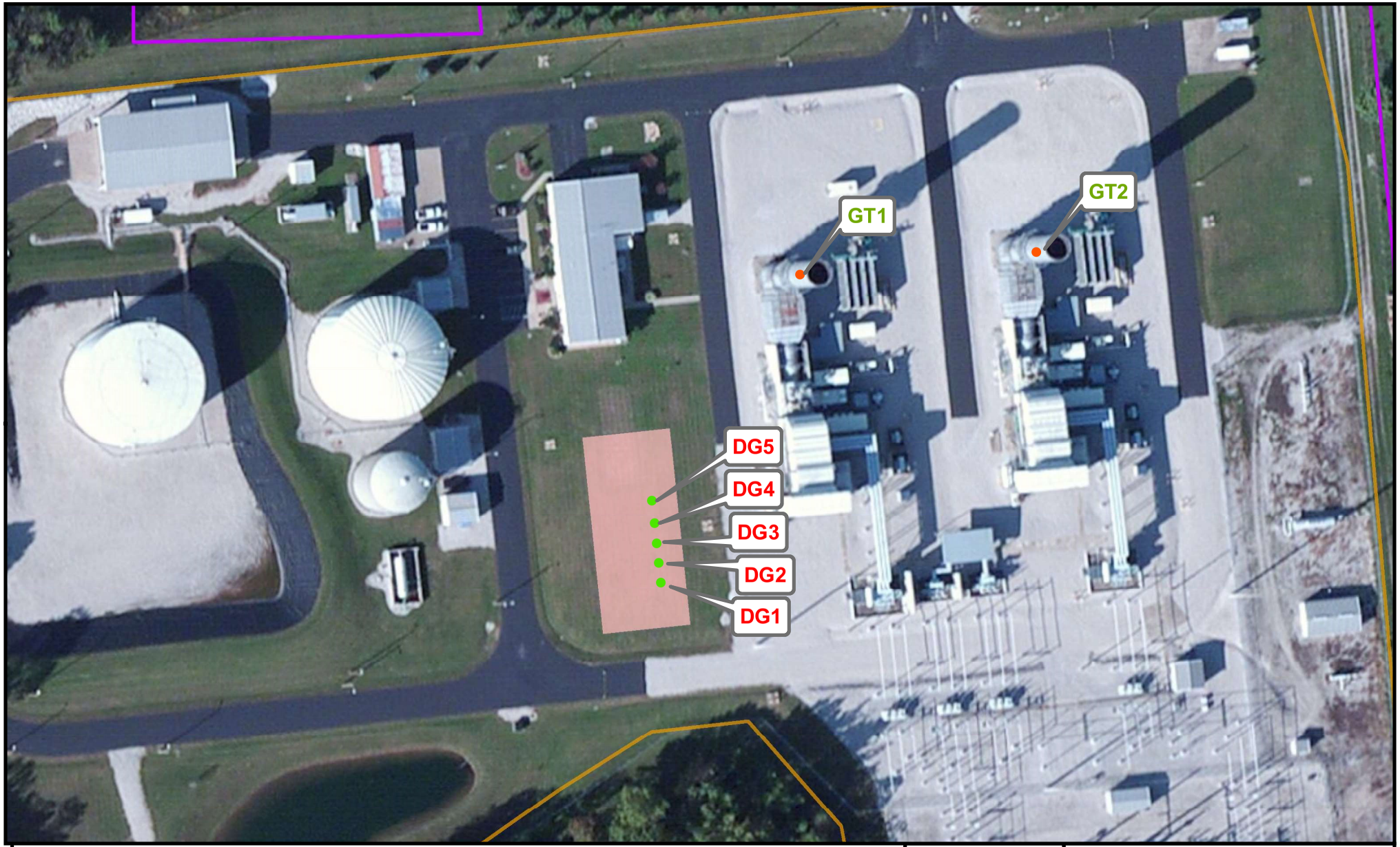
Legend

- Business
- House
- Cemetery
- Project Location
- Property Boundary

Attachment A
Area Map
Pleasants Energy, LLC

Source: 2013 National Geographic Society

Issued: 7/28/2015



Legend

- Fence Line
- Generator Building
- Property Boundary
- Combustion Turbine
- Emergency Generator

NORTH

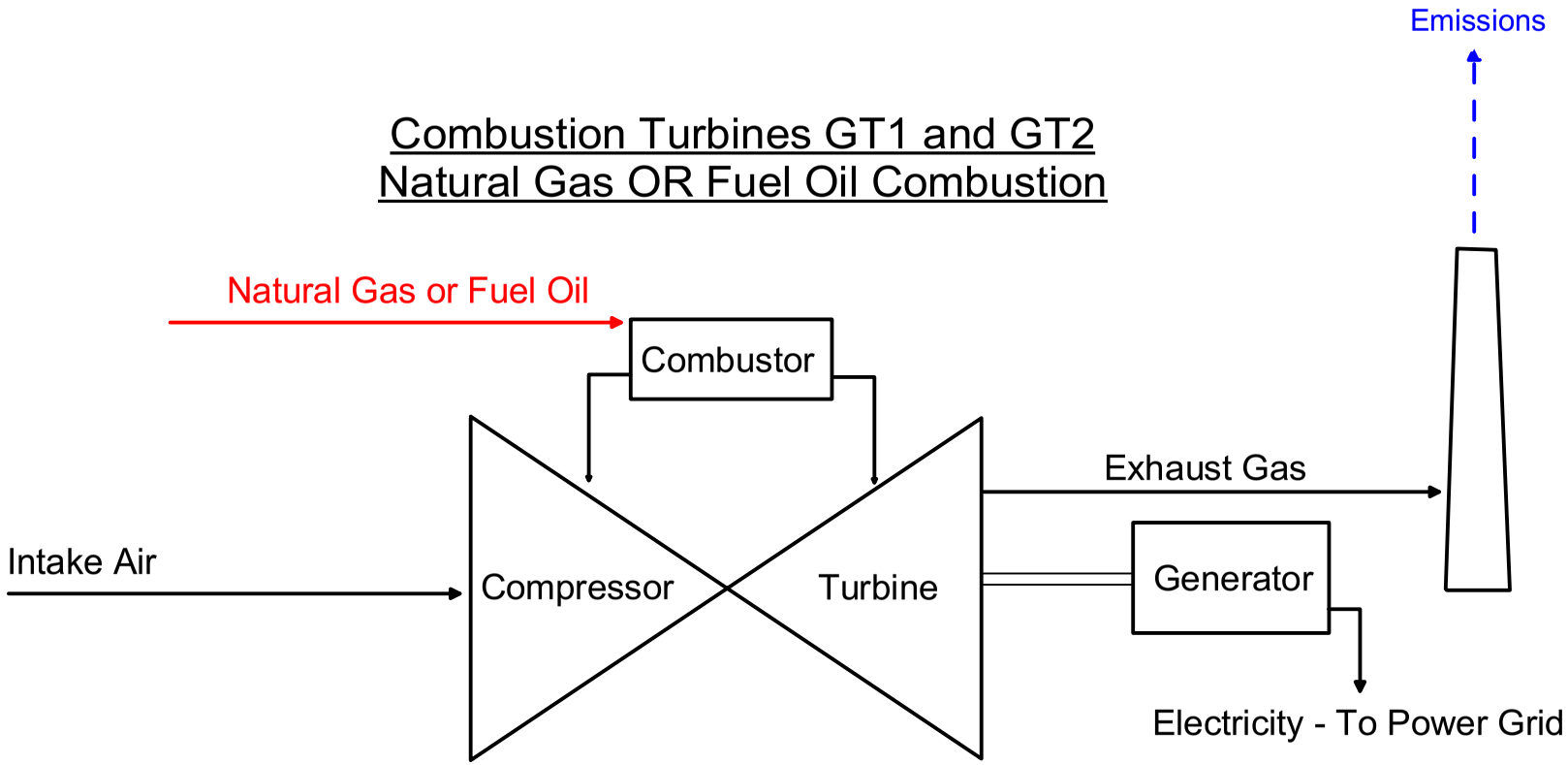
100 50 0 100

Scale in Feet

Attachment B
Facility Plot Plan
Pleasants Energy, LLC

Issued: 9/13/2017

Pleasants Energy, LLC
Combustion Turbine Process Flow Diagram

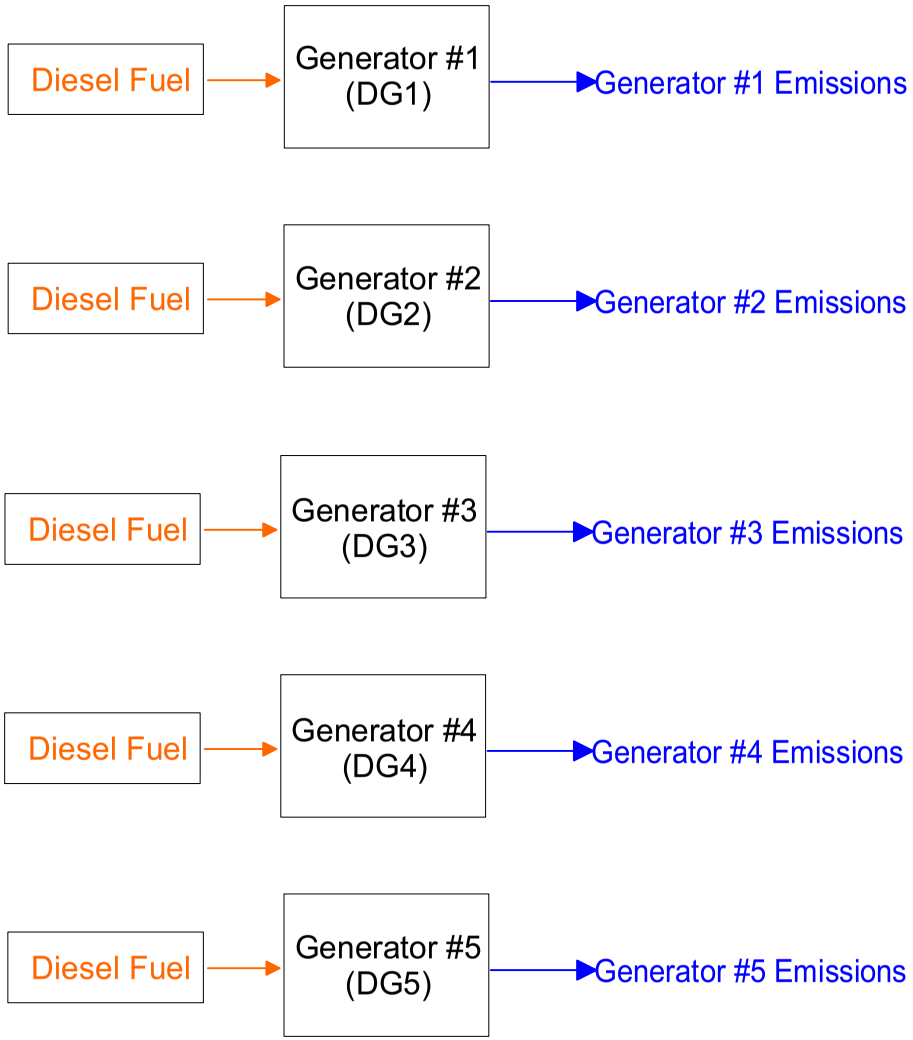


Natural Gas or Fuel Oil

Emissions

Attachment C-1
Combustion
Turbine Process
Flow Diagram

Pleasants Energy, LLC
Generators Process Flow Diagram



Diesel Fuel

Emissions

Attachment C-2
Generators
Process Flow Diagram

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
EP1	None	GT1	General Electric Model 7FA Turbine	2,013 MMBtu/hr (gas) 2,180 MMBtu/hr (diesel)	2001/2019
EP2	None	GT2	General Electric Model 7FA Turbine	2,013 MMBtu/hr (gas) 2,180 MMBtu/hr (diesel)	2001/2019
EP3	SCR1	DG1	Caterpillar C175-16 Diesel Gen.	3 MW	2015
EP4	SCR2	DG2	Caterpillar C175-16 Diesel Gen.	3 MW	2015
EP5	SCR3	DG3	Caterpillar C175-16 Diesel Gen.	3 MW	2015
EP6	SCR4	DG4	Caterpillar C175-16 Diesel Gen.	3 MW	2015
EP7	SCR5	DG5	Caterpillar C175-16 Diesel Gen.	3 MW	2015

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EP3, EP4, EP5, EP6, EP7	DG1, DG2, DG3, DG4, DG5	SCR1, SCR2, SCR3, SCR4, SCR5

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Caterpillar C175-16 Tier IV Certified Diesel Generator

Manufacturer:	**Model number:**	**Serial number:**
Caterpillar		
Construction date: 01/14/2015	**Installation date:** 05/01/2015	**Modification date(s):** **11/24/2015** - Minor source permit date changing engines from emergency to non-emergency capability **03/13/2018** – PSD construction permit date changing engines back to emergency only

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
3 MW

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
208.8 gal/hour per generator	20,880 gal/year per generator	24 hours/day, 100 hours per year per engine

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 4,376 hp	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
208.8 gal/hour diesel fuel per generator
20,880 gal/year diesel fuel per generator

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel	0.0015% (Ultra low sulfur diesel fuel)	N/A	140,000 Btu/gal

Emissions Data		
Criteria Pollutants	Potential Emissions (per generator)	
	PPH	TPY
Carbon Monoxide (CO)	25.18	1.26
Nitrogen Oxides (NO_X)	4.82	0.24
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.72	0.04
Particulate Matter (PM_{10})	0.72	0.04
Total Particulate Matter (TSP)	0.72	0.04
Sulfur Dioxide (SO_2)	0.05	2.66×10^{-3}
Volatile Organic Compounds (VOC)	2.88	0.14
Hazardous Air Pollutants	Potential Emissions (per generator)	
	PPH	TPY
Total HAPs	0.13	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions (per generator)	
	PPH	TPY
CO_2e	4,680.26	234.01
H_2SO_4	8.13×10^{-3}	4.06×10^{-4}

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

NOx, CO, $PM/PM_{10}/PM_{2.5}$ and VOC emission rates based on NSPS Subpart IIII Limits
SO_2 and HAP emission rates based on AP-42 Section 3.4 (10/96) Table 3.4-1
CO_2e emissions based on 40 CFR 98 Subpart C Greenhouse Gas Reporting Rule
H_2SO_4 emissions determined by Mass Balance
See Attachment J - Supporting Emissions Calculations for further detail

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See attached table for Applicable Requirements.

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See attached table for monitoring/testing/recordkeeping/reporting that is used to demonstrate compliance with Applicable Requirements.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EP1, EP2	GT1, GT2	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
General Electric Model 7FA Turbines (GT1 and GT2) – Fuel oil (diesel) combustion.

Manufacturer:	**Model number:**	**Serial number:**
GE	7FA	
Construction date:	**Installation date:**	**Modification date(s):**
2001	2001	03/09/2019

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,180 MMBtu/hr (diesel)
2,013 MMBtu/hr (natural gas)

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
14,748 gal/hour diesel consumption (each turbine)	8,410, 714 gal/year combined limit for both combustion turbines combined	24 hr/day See fuel limit in applicable requirements

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired __X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 2,180 MMBtu/hr (diesel) 2,013 MMBtu/hr (natural gas)	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Diesel – 14,748 gal/hour (each turbine) and 8,410,714 gal/year (combined annual limit for both combustion turbines)
See natural gas form for GT1 and GT2 - natural gas for natural gas information

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Distillate fuel oil (diesel)	15 ppm	N/A	140,000 Btu/gal

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH*	TPY
Carbon Monoxide (CO)	76	See Attachment J
Nitrogen Oxides (NO_X)	470	See Attachment J
Lead (Pb)	0.02	See Attachment J
Particulate Matter ($PM_{2.5}$)	41	See Attachment J
Particulate Matter (PM_{10})	41	See Attachment J
Total Particulate Matter (TSP)	41	See Attachment J
Sulfur Dioxide (SO_2)	3.27	See Attachment J
Volatile Organic Compounds (VOC)	20	See Attachment J
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	2.63	See Attachment J
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
CO_2e	337,813	See Attachment J
H_2SO_4	17.7	See Attachment J

*PPH emissions are based on the maximum emissions while combusting diesel, excluding startup and shutdown, per combustion turbine. See Attachment J for more details on emissions.

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

NOx, CO, $PM/PM_{10}/PM_{2.5}$, SO2, and VOC emission rates based on Vendor data for uprate of turbine
HAP emission rates based on AP-42 Section 3.1, Updated 2/2000.
CO_2e emissions based on 40 CFR 98 Subpart C Greenhouse Gas Reporting Rule
H_2SO_4 emissions determined by Mass Balance
See Attachment J - Supporting Emissions Calculatations for further detail

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See attached table for Applicable Requirements.

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See attached table for monitoring/testing/recordkeeping/reporting that is used to demonstrate compliance with Applicable Requirements.

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EP1, EP2	GT1, GT2	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
General Electric Model 7FA Turbines (GT1 and GT2) – Natural gas combustion

Manufacturer:	**Model number:**	**Serial number:**
GE	7FA	

Construction date:	**Installation date:**	**Modification date(s):**
2001	2001	03/09/2019

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,013 MMBtu/hr (gas),
2,180 MMBtu/hr (diesel)

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.54 MMCF/hr natural gas consumption	15,550 x 10^6 SCF/Year for each combustion turbine	24 hr/day

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired __X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 2,013 MMBtu/hr (gas), 2,180 MMBtu/hr (diesel)	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural gas – 1.54 MMCF/hr and 15,550 x 10^6 SCF/year for each combustion turbine

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	0.5 grains per 100 scf	N/A	1020 Btu/scf

Emissions Data

Criteria Pollutants	Potential Emissions*	
	PPH	TPY
Carbon Monoxide (CO)	33.9	See Attachment J
Nitrogen Oxides (NO_X)	68.9	See Attachment J
Lead (Pb)		See Attachment J
Particulate Matter ($PM_{2.5}$)	15.9	See Attachment J
Particulate Matter (PM_{10})	15.9	See Attachment J
Total Particulate Matter (TSP)	15.9	See Attachment J
Sulfur Dioxide (SO_2)	2.7	See Attachment J
Volatile Organic Compounds (VOC)	3.2	See Attachment J
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs (Natural gas combustion)	0.94	See Attachment J
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
CO_2e	223,611	See Attachment J
H_2SO_4	0.41	See Attachment J

*PPH emissions are based on the maximum natural gas emissions, excluding startup and shutdown, per combustion turbine. See Attachment J for more details on emissions.

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

NOx, CO, PM/PM_{10}/$PM_{2.5}$, SO2, and VOC emission rates based on Vendor data for uprate of turbine
HAP emission rates based on AP-42 Section 3.1, Updated 2/2000. Natural gas formaldehyde emission factor from Sims Roy EPA Memo "Hazardous Air Pollutant (HAP) Emission Control Technology for New Stationary Combustion
CO_2e emissions based on 40 CFR 98 Subpart C-Greenhouse Gas Reporting Rule
H_2SO_4 emissions determined by Mass Balance
See Attachment J - Supporting Emissions Calculations for further detail

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See attached table for Applicable Requirements.

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See attached table for monitoring/testing/recordkeeping/reporting that is used to demonstrate compliance with Applicable Requirements.

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: SCR1, SCR2, SCR3, SCR4, SCR5	**List all emission units associated with this control device.** DG1, DG2, DG3, DG4, DG5	
Manufacturer: Caterpillar Clean Emissions Module	**Model number:** N/A	**Installation date:** 05/01/2015

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter
___ Carbon Bed Adsorber
___ Carbon Drum(s)
___ Catalytic Incinerator
___ Thermal Incinerator
___ Wet Plate Electrostatic Precipitator
___ Venturi Scrubber
___ Packed Tower Scrubber
___ Other Wet Scrubber
___ Condenser
___ Flare
___ Multiclone
___ Single Cyclone
___ Cyclone Bank
___ Settling Chamber
_X_ Other (describe) _Selective Catalytic Reduction (SCR) system
___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
NOx	N/A	Controlled NOx rate: 0.5 g/hp-hr

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

The SCR system consists of a SCR catalyst that uses an air-assist diesel exhaust fluid (DEF) injection to convert NOx emissions into nitrogen and water.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X__ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Monitoring of the SCR system is performed as required by 40 CFR 60 Subpart IIII.

Attachment J

Pleasants Energy, LLC - Title V Renewal - Facility Total Emissions
Emissions Estimates (Maximum Potential to Emit)

Pollutant	Emissions Each Combustion Turbine (tpy)	Total Emissions (tpy)[a,b]	PSD Significant Emission Rates
NOx	232.3	**464.6**	40
CO	235.5	**471.1**	100
PM	41.7	**83.3**	25
PM_{10}	41.7	**83.3**	15
$PM_{2.5}$	41.7	**83.3**	10
VOC	10.1	20.3	40
SO2	6.9	13.8	40
Lead	0.0	6.5E-03	0.6
H_2SO_4	1.1	2.1	7
CO2e	569,789	**1,139,578**	75,000
Total HAPs	2.6	5.3	--

(a) Emissions are based on worst-case emissions from any operating scenario. Based on fuel limit of 19,082,000,000 SCF of gas plus fuel oil for both turbines combined. Includes startup and shutdown emissions.

(b) Numbers in bold indicate the PSD significance level is exceeded

Pleasants Energy Title V Renewal - Total Facility Emissions

Pollutant	Emissions			Facility Total
	Diesel Generators (Five Generators)[a] (tpy)	Diesel Storage Tank (tpy)	(Combustion Turbines) (tpy)	Total Emissions (tpy)
NOx	1.2	--	464.6	**465.8**
CO	6.3	--	471.1	**477.4**
PM/PM10	0.2	--	83.3	**83.5**
PM_{10}	0.2	--	83.3	**83.5**
$PM_{2.5}$	0.2	--	83.3	**83.5**
VOC	0.7	6.9E-04	20.3	**21.0**
SO2	1.3E-02	--	13.8	**13.8**
Lead	--	--	6.5E-03	**6.5E-03**
H_2SO_4	2.0E-03	--	2.1	**2.1**
CO2e	1,170	--	1,139,578	**1,140,748**
Total HAPs	3.2E-02	--	5.3	**5.3**

(a) Emissions based on 5 diesel generators limited to 100 hours each.

Pleasants Energy, LLC - Title V Renewal - Emissions Calculations
Emergency Generators Emissions Estimate

Tier IV Diesel Generators (5)

Fuel Consumption, Each Generator (100% load)	208.8	Gal/hr
Heat Input, Each Generator	28.61	MMBtu/hr
Power Output, hp	4,376	hp
Power Output, kW	3000	kW
Sulfur Content of Fuel	0.0015	%
Displacement	5.29	L/cylinder
Annual Operation (per Engine)	100	hours/year (per engine)

Stack Parameters

Height (ft)	Temp. (F)	Velocity (ft/sec)	Diameter (ft)	ACFM	Stack Discharge Type	Fuel
45	882.2	124.98	2.00	23557.40	Vertical	Diesel

Pollutant	Emission Factors				Emissions (One Engine)		Emissions (Five Engines)	
	lb/hp hr	g/hp-hr	lb/MMBtu	Source	lb/hr	tpy	lb/hr	tpy
NOx	1.10E-03	0.50	–	NSPS[C]	4.82	0.24	24.10	1.21
CO	5.75E-03	2.61	–	NSPS[C]	25.18	1.26	125.90	6.29
$PM/PM_{10}/PM_{2.5}$	1.6E-04	0.07		NSPS[C]	0.72	0.04	3.60	0.18
VOC	6.58E-04	0.30	–	NSPS[C]	2.88	0.14	14.39	0.72
SO_2	1.21E-05	0.01	–	AP-42[A]	0.05	2.66E-03	0.27	0.01
H_2SO_4	--	--	–	Mass Balance	8.13E-03	4.06E-04	0.04	0.00
CO_2	--	--	163.05	Part 98[B]	4,664.26	233.21	23,321.28	1,166.06
N_2O	--	--	1.32E-03	Part 98[B]	0.04	0.00	0.19	0.01
CH_4	--	--	6.61E-03	Part 98[B]	0.19	0.01	0.95	0.05
CO_2e	--	--	–		4,680.26	234.01	23,401.30	1170.07

[A] AP-42 Section 3.4 (10/96) Table 3.4-1

[B] Greenhouse Gas Reporting Rule- Subpart C of Part 98

[C] NSPS Subapart IIII Limits

NSPS Limits - 40 CFR Part 60, Subapart IIII, (40 CFR 60.4201(c) and 40 CFR 1039.102 - Table 7)

	NOx	CO	PM	NMHC
g/kW-hr	0.67	3.5	0.10	0.40
g/hp-hr	0.50	2.61	0.07	0.30

Pleasants Energy, LLC - Title V Renewal - Emissions Calculations
Diesel Storage Tanks

Description:
Horizontal Fixed Roof Tanks

Assumptions for All tanks:
Weather - Columbus, Ohio data
Type - Horizontal Fixed Roof Tank
Color/Shade - White/White (Default)
Fuel - Distillate #2 Fuel Oil
Monthly Calculation - Throughput distributed evenly over the entire year

Generator Fuel Oil Tanks (1)
Size: 2500 gallons

VOC Emissions[1]	
lb/yr	tpy
1.37	**6.9E-04**

[1] *EPA TANKS program was run for VOC emissions from the fuel tank*

Signature: Timothy Ansell
Timothy Ansell (Nov 4, 2024 13:20 EST)

Email: timothy.ansell@vistracorp.com

Pleasants Title V Renewal Submittal 09252024

Final Audit Report 2024-11-04

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