

### **COMMONWEALTH OF PENNSYLVANIA** DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

### TITLE V/STATE OPERATING PERMIT

Issue Date:

June 19, 2018

Effective Date:

June 19, 2018

Expiration Date: Way 29: 2028

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator If noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable applicable requirements unless otherwise designated as "State-Only" or "non-applicable" requirements.

### TITLE V Permit No: 40-00021

Federal Tax Id - Plant Code: 73-1524087-1

Owner Information

Name: HAZLETON GENERATION LLC

Mailing Address: 120 MAPLEWOOD DR

HAZLE TOWNSHIP, PA 18202-9266

Plant Information

Plant: HAZLETON GEN LLC/HAZLE TWP

Location: 40

Luzerne County

40940 Hazle Township

SIC Code: 4931 Trans. & Utilities - Electric And Other Services Combined

Responsible Official

Name: DEAN MOTL

Title: ASSET MANAGER

Phone: (602) 459 - 1012

Permit Contact Person

Name: MICHAEL K HATEM

Title: GENERAL PLANT MANAGER

Phone: (270) 832 - 5682

MARK J. WEJKSZNER, 'NORTHEAST REGION AIR PROGRAMMANAGER



### **SECTION A. Table of Contents**

### Section A. Facility/Source Identification

Table of Contents Site Inventory List

### Section B. General Title V Requirements

#001	Definitions	

- #002 Prohibition of Air Pollution
- #003 Property Rights
- #004 Permit Expiration
- #005 Permit Renewal
- #006 Transfer of Ownership or Operational Control
- #007 Inspection and Entry
- #008 Compliance Requirements
- #009 Need to Halt or Reduce Activity Not a Defense
- #010 Duty to Provide Information
- #011 Reopening and Revising the Title V Permit for Cause
- #012 Reopening a Title V Permit for Cause by EPA
- #013 Operating Permit Application Review by the EPA
- #014 Significant Operating Permit Modifications
- #015 Minor Operating Permit Modifications
- #016 Administrative Operating Permit Amendments
- #017 Severability Clause
- #018 Fee Payment
- #019 Authorization for De Minimis Emission Increases
- #020 Reactivation of Sources
- #021 Circumvention
- #022 Submissions
- #023 Sampling, Testing and Monitoring Procedures
- #024 Recordkeeping Requirements
- #025 Reporting Requirements
- #026 Compliance Certification
- #027 Operational Flexibility
- #028 Risk Management
- #029 Approved Economic Incentives and Emission Trading Programs
- #030 Permit Shield

### Section C. Site Level Title V Requirements

- C-I: Restrictions
- C-II: Testing Requirements
- C-III: Monitoring Requirements
- C-IV: Recordkeeping Requirements
- C-V: Reporting Requirements
- C-VI: Work Practice Standards
- C-VII: Additional Requirements
- C-VIII: Compliance Certification
- C-IX: Compliance Schedule

# Section D. Source Level Title V Requirements

- D-I: Restrictions
- D-II: Testing Requirements
- D-III: Monitoring Requirements
- D-IV: Recordkeeping Requirements
- D-V: Reporting Requirements
- D-VI: Work Practice Standards
- D-VII: Additional Requirements





### **SECTION A. Table of Contents**

Note: These same sub-sections are repeated for each source!

### Section E Source Group Restrictions

- E-I: Restrictions
- E-II: Testing Requirements
- E-III: Monitoring Requirements
- E-IV: Recordkeeping Requirements
- E-V: Reporting Requirements
- E-VI: Work Practice Standards
- E-VII: Additional Requirements

### Section F. Alternative Operating Scenario(s)

- F-I: Restrictions
- F-II: Testing Requirements
- F-III: Monitoring Requirements
- F-IV: Recordkeeping Requirements
- F-V: Reporting Requirements
- F-VI: Work Practice Standards
- F-VII: Additional Requirements

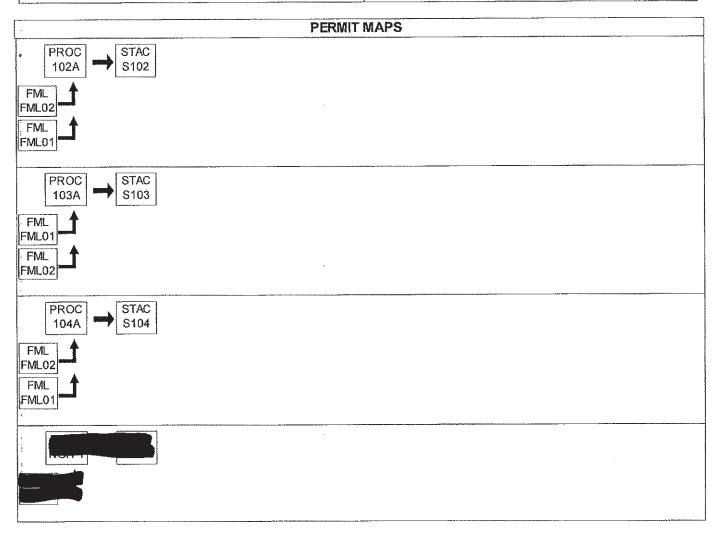
### Section G. Emission Restriction Summary

### Section H. Miscellaneous

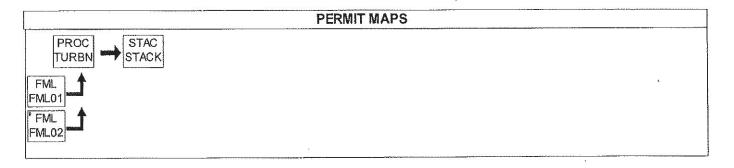


## SECTION A. Site Inventory List

Source I	D Source Name	Capacity/Throughput	Fuel/Material
102A	GAS TURBINE 2 DUAL-FUEL TURBN WWATER INJ. WINLET FOGGING	375.000 MMBTU/HR	
103A	GAS TURBINE 3 DUAL-FUEL TURBN WWATER INJ. WINLET FOGGING	375.000 MMBTU/HR	
104A	GAS TURBINE 4 DUAL-FUEL TURBN WWATER INJ. WINLET FOGGING	375.000 MMBTU/HR	
TURBN	NATURAL GAS TURBINE W/WATER INJECTION	865.400 MMBTU/HR	
FML01	NATURAL GAS PIPELINE		
FML02	NO. 2 FUEL OIL TANK		
S03	LARGE HEATER STACK		
S102	STACK FOR GAS TURBINE UNIT #2		
S103	STACK FOR GAS TURBINE UNIT#3		
S104	STACK FOR GAS TURBINE UNIT #4		
STACK	TURBINE EXHAUST STACK		







Page 5

# PAGES 6-27 REDACTED





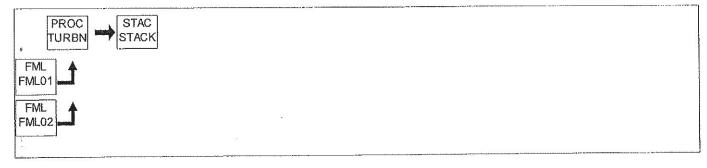
Source ID: TURBN

Source Name: NATURAL GAS TURBINE WWATER INJECTION

Source Capacity/Throughput:

865.400 MMBTU/HR

Conditions for this source occur in the following groups: GROUP 03



### RESTRICTIONS.

**Emission Restriction(s).** 



# 004 [25 Pa. Code §127.512]

Operating permit terms and conditions.

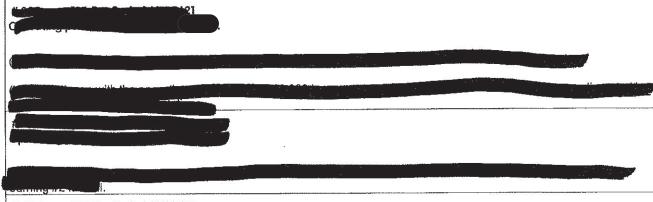
[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.99]

The total emission of Nitrogen Oxides (NOx) from this source shall not exceed the following limitations:

- (a) Over any 1-hour period of normal operation, the average concentration may not exceed 75 PPMV Dry @ 15% O2 of Nitrogen Oxides when firing natural gas.
- (b) On an hourly basis, emissions may not at any time exceed 252.4 Pounds per Hour of Nitrogen Oxides.
- (c) On an annual basis, emissions may not exceed 252.4 Tons per Year of Nitrogen Oxides expressed as a 12-month rolling summation. Should this limit be exceeded, the facility must cease operation or obtain prior approval under applicable regulations.
- (d) Whenever the turbine is in the start-up or shut-down period, the allowable PPMV dry limit of section (a) and the lbs/hr limit of section (b) of this requirement do not apply. The start-up and shut-down periods of the turbine are determined as follows:



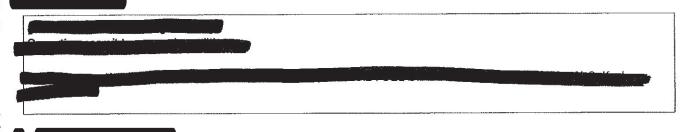
- (1) The start-up period is the period of time starting from the point of no electrical generation, up until the turbine reaches 50% of its rated capacity. This period of time may not exceed three hours in duration. Operation of the turbine past three hours from start-up will be considerd "normal operation", and the emission limit of section (a) and section (b) of this requirement shall then apply.
- (2) The shut-down period is the period of time starting from the point of 50% of the turbines rated capacity until it is totally shut-down with no electrical generation. This period may not exceed three hours in duration. Operation of the turbine past three hours from initiation of a shut-down sequence will be considered "normal operation", and the emission limits of section (a) and section (b) of this requirement shall then apply.
- (3) The Department reserves the right to change the aforementioned definition of the start-up and shut-down periods of this unit.
- (4) NOx emissions from the turbine during start-up and shut-down shall be monitored and recorded by DEP certified CEMS and shall be added to normal operation emissions to determine compliance with annual emission limits specified in this permit.

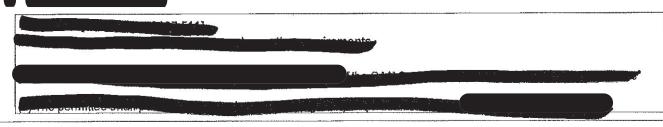


# 007 [25 Pa. Code §127.512]
Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.99]

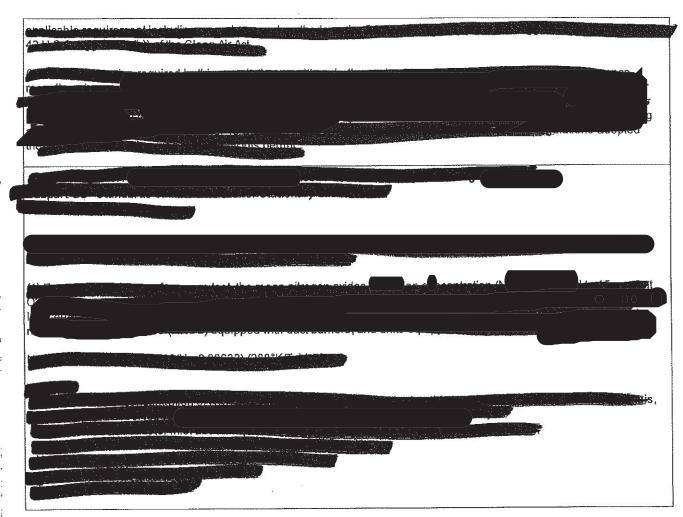
On a 30-day rolling operating day basis, emissions, including periods of startup, shutdown, and malfunction, may not exceed an average concentration of 75 PPMV Dry @15% O2, when burning natural gas, and 96 PPMV Dry @15% O2, when burning fuel oil.











### III. MONITORING REQUIREMENTS.

### # 011 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129,100]

The permittee shall operate and maintain a continuous monitoring system to monitor and record the fuel consumption and the water injection rate in the turbine. This system shall be accurate to within 5% and shall be approved by the Department.

### #012 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

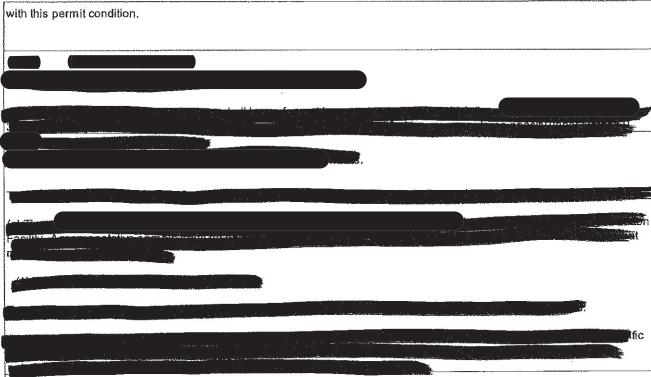
[Additional authority for this permit condition is derived from 25 Pa. Code Sections 139.101(1)(iv), 139.101(2), 139.101(3), 139.101(4), 139.101(6), 139.101(7), 139.101(8), 139.101(12), 139.101(14) 139.101(15), and 129.100]

Continuous Emission Monitoring Systems (CEMS) and components must be operated and maintained in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources) and the Quality Assurance requirements in the Departments Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001.

Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance







#015 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.100]

The permittee shall install and operate a continuous source monitoring system to monitor and record nitrogen oxide (NOx) emissions from this turbine. The system shall include a continuous oxygen (O2) monitor to correct the observed reading of NOx concentration to 15% O2 and have the capability of recording both NOx concentration and mass emission rates. Design of this monitoring system must be approved by the Department and recordkeeping and reporting procedures must be in accordance with the requirements of the latest publication of the Continuous Source Monitoring Manual.

# 016 [25 Pa. Code §127.512]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.100]

Nitrogen Oxides emissions from this source shall be recorded on a continuous basis. This monitoring device shall be operated and maintained in accordance with the quality assurance, recordkeeping and reporting requirements of 25 Pa. Code, Chapter 139 and the most recent publication of the Department's Continuous Source Monitoring Manual.

### IV. RECORDKEEPING REQUIREMENTS.

### # 017 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.100]

The permittee shall maintain the following records:

- (a) Data which clearly demonstrates that the heat input for the turbine never exceeds its rated capacity,
- (b) Data which clearly demonstrates that the turbine never exceeds the operational limit of 2,000 hours per year (based on a 12-month rolling summation).



# 018 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 139.101(5), 139.101(12), 139.103, and 129.100].

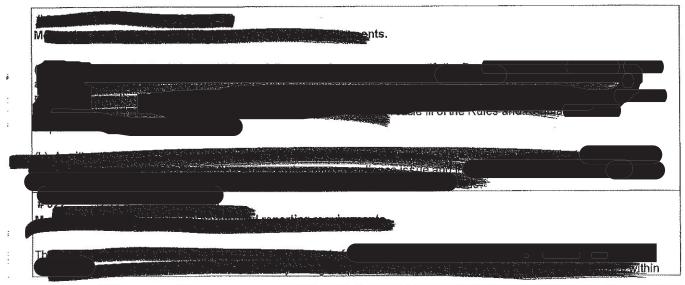
The permittee shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), (and) the Record Keeping and Reporting requirements in the Departments Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001.

Records shall be retained for at least five (5) years and shall be made available to the Department upon request.

Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.



### V. REPORTING REQUIREMENTS.





DEP Auth ID: 1177229

### SECTION D. Source Level Requirements

# , and the close of the close of

### # 023 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting regulrements.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 139.101(1)(iv), 139.101(10), 139.101(12), 139.103 and 129.100].

The permittee shall submit quarterly reports of continuous emission monitoring to the Department in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), (and) the Record Keeping and Reporting requirements as established in the Departments Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001.

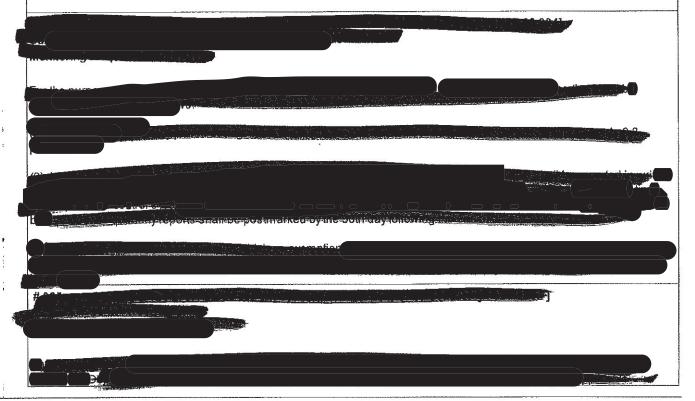
The permittee shall report emissions for all periods of unit operation, including startup, shutdown and malfunction.

Initial quarterly reports following system certification shall be submitted to the Department within 35 days following the date upon which the Department notifies the owner or operator, in writing, of the approval of the continuous source monitoring system for use in determining compliance with applicable emission standards.

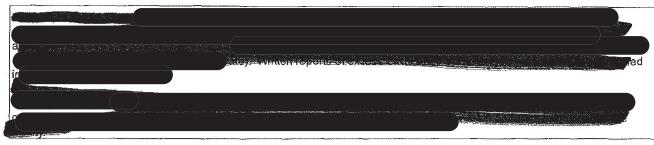
Subsequent quarterly reports shall be submitted to the Department within 30 days after the end of each calendar quarter.

Failure to submit required reports of continuous emission monitoring within the time periods specified in this Condition, shall constitute violations of this Permit, unless approved in advance by the Department in writing.

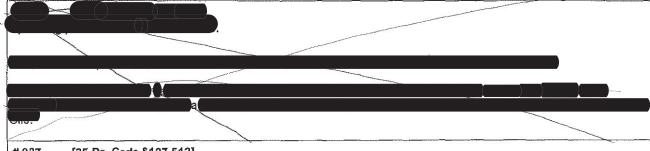
Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.







WORK PRACTICE REQUIREMENTS.



# 027 [25 Pa. Code §127.512]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.100]

To optimize combustion efficiency, the permittee shall operate and maintain this turbine in accordance with the manufacturer's specifications and good air pollution control practices.

