COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date: September 24, 2018 Effective Date: October 1, 2018

Expiration Date: ~~September 30, 2023~~

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: 38-05019

Federal Tax Id - Plant Code: 27-1923399-1

Owner Information

Name: HELIX IRONWOOD LLC
Mailing Address: 305 PRESCOTT RD
LEBANON, PA 17042-9178

Plant Information

Plant: HELIX IRONWOOD LLC/LEBANON
Location: 38 Lebanon County 38921 South Lebanon Township
SIC Code: 4911 Trans. & Utilities - Electric Services

Responsible Official

Name: KATHY FRENCH
Title: VP ENVIRONMENTAL
Phone (908) 239 - 3974

Permit Contact Person

Name: JOHN WOLFF
Title: COMPLIANCE MGR
Phone: (717) 228 - 1328 Ext.104

[Signature] William R. Weaver III

WILLIAM R. WEAVER, SOUTHCENTRAL REGION AIR PROGRAM MANAGER

Pages 2-65 Completely Redacted

Pages 68-70 Completely Redacted

SECTION E. Source Group Restrictions.

Group Name: 006 RACT II

Group Description: Case-by-Case RACT II Requirements

Sources included in this group

RACT 2 SIP Provisions from Title V Permit No. 38-05019 Renewal issued 09/24/18 (pages 66-67 of permit)

ID	Name
T001	NO. 1 COMBUSTION TURBINE
T002	NO. 2 COMBUSTION TURBINE

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

 # 001 [25 Pa. Code §129.99]

Alternative RACT proposal and petition for alternative compliance schedule.

a. Pursuant to the Lowest Achievable Emission Rate (LAER) provisions of 25 Pa. Code Section 127.205, the following emission limits apply to normal operation of each of the combustion turbines:

1. NOx: 4.5 ppm dry volume corrected to 15% oxygen, calculated as a 3-hour rolling block average during normal operation.

2. NOx: 0.018 lb/mmBtu, HHV, calculated as a 3-hour rolling block average during normal operation.

3. These emission limits ensure compliance with the NOx emission standard included in 40 CFR Part 60, Subpart GG.

b. Annual NOx emissions shall not exceed 442 tons per consecutive 12-month period. This limit includes emissions generated during all start-up and shutdown periods as well as during normal operation. NOx emissions from all startup, shutdown and load change periods are included in the annual NOx emission cap. Actual NOx emissions shall be those measured by the facility's continuous emissions monitoring system (CEMS).

c. Pursuant to the Lowest Achievable Emission Rate (LAER) provisions of 25 Pa. Code Section 127.205, the following emission limits apply to each of the combustion turbines during the stated periods. The definitions and durations of these periods are provided elsewhere in this approval. Maximum total emissions per turbine for startup and load change events shall not exceed the following values:

1. Cold startup: 731 pounds of NOx
2. Warm startup: 543 pounds of NOx
3. Hot startup: 295 pounds of NOx
4. Load change: 295 pounds of NOx

d. Normal operation of the combustion turbines is specified as all operation other than that occurring during the following designated periods:

1. Cold startup: Refers to restarts made more than 48 hours after shutdown; cold startup periods shall not exceed 15 hours per turbine per occurrence. A successful cold startup will be determined upon the turbine reaching 70% of full load; should the turbine trip prior to reaching 70% of full load, subsequent restarts will still be defined as a cold startup.

2. Warm startup: Refers to restarts made more than 8 hours, but less than or equal to 48 hours after shutdown; warm startup periods shall not exceed 10.5 hours per turbine per occurrence. A successful warm startup will be determined upon the turbine reaching 70% of full load; should the turbine trip prior to reaching 70% of full load, subsequent restarts will still be defined as a warm startup.

3. Hot startup: Refers to restarts made 8 hours or less after shutdown; hot startup periods shall not exceed 4 hours per turbine per occurrence.

4. Shutdown: Commences with the input of a stop command by the operator and ends with termination of combustion in the combustion chamber.

5. Load changes: Refers to the reduction in load of one or both combustion turbines to less than 70% of full load for a period of time not to exceed 6 hours for the purpose of balancing steam output from the units while changing the plant from two unit to one unit operation or from one unit to two unit operation; or to an automatic or operator selected reduction in load of one or both combustion turbines to less than 70% of full load due to instrumentation or equipment related maintenance and support activities which require reduced load operation.

6. The permittee shall maintain detailed records to document each interval defined above. This information shall be made available to Department representatives upon request.

e. The permittee shall maintain detailed records of all maintenance performed on the air emissions control systems associated with the combustion turbines for the most recent five-year period.

f. The permittee shall operate the turbines in such a manner as to minimize the duration of start-up, shutdown and load change periods. All NOx emissions from these events will be quantified by the approved methods and are included in the annual facility limit for that pollutant.

g. The permittee shall monitor and record the following parameters for each of the SCR systems associated with the combustion turbines:

1. Catalyst bed inlet temperature
2. Ammonia solution injection rate
3. Ammonia solution concentration
4. Ammonia slip

h. The permittee shall maintain and operate a continuous monitoring system to monitor and record the natural gas consumption and total operating hours for each of the combustion turbines.

i. Compliance with the NOx emission limits in this Source Group shall be determined via CEMS data.

***** Permit Shield in Effect. *****