



OPERATING PERMIT Issued Pursuant to Tennessee Air Quality Act

Date Issued: January 21, 2016

Permit Number:
071167P

Date Expires: January 1, 2026

Issued To:
Linde Gas North America LLC

Installation Address:
1325 Old Lower River Road NW
Charleston

Installation Description:
Hydrogen Production Facility
01: Reformer No. 1 (111101)

Emission Source Reference No.
06-0284

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

CONDITIONS:

1. The application that was utilized in the preparation of this permit is dated December 18, 2015, and signed by Terry Phipps, HYCO NA SMR Operations ROC Head for the permitted facility. If this person terminates employment or is reassigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

TAPCR 1200-03-09-.03(8)

(conditions continued on next page)


TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

POST AT INSTALLATION ADDRESS

2. The maximum combustion heat input for this source shall not exceed 25.09 MM Btu/hr (LHV). The combustion gas may consist of natural gas and vent gas.

TAPCR 1200-03-09-.01(1)(d) and application dated January 5, 2015

Compliance Method: A log of daily average fuel (natural gas and PSA off gas) feed rate, in a form that readily shows compliance with the heat input limitation, must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. This log must be retained for a period of not less than two years.

3. Particulate matter (PM) emissions from this source shall not exceed 0.012 pound per MM Btu (0.3 pound per hour) and 1.32 tons per year.

This limit is pursuant to 1200-03-07-.01(5) and agreement letter by the permittee dated December 18, 2015.

Compliance Method: Compliance with this emission limitation is based on the vendor guarantee provided as part of the application dated December 18, 2015.

4. Carbon monoxide (CO) emissions from this source shall not exceed 0.98 pounds per hour.

TAPCR 1200-03-07-07(2)

Compliance Method: Compliance is inherent in the design of the source. Performance testing of a similar but larger unit at Anacortes, WA on August 8, 2014 yielded CO emissions of 0.0 pound per hour.

5. Volatile organic compounds (VOC) emissions from this source shall not exceed 0.45 pound per hour.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance is inherent in the design of the source. The only input to this source is natural gas.

6. Nitrogen Oxides (NOx) emissions from this source shall not exceed 1.51 pounds per hour.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance is inherent in the design of the source. Performance testing of a similar but larger unit at Anacortes, WA on August 8, 2014 yielded a NOx emission factor of 0.04 pound per MM Btu.

7. Sulfur dioxide (SO₂) emissions from this source shall not exceed 0.01 pound per hour.

TAPCR 1200-03-14-.03(5)

Compliance Method: Compliance with this emission limitation shall be assured by complying with Condition 2.

8. Hexane emissions from this source shall not exceed 0.22 tons per year.

TAPCR 1200-03-07-.07(2)

Compliance with this emission limitation shall be assured by complying with Condition 2.

9. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average) pursuant to TAPCR 1200-03-05-.01(1) and 1200-03-05-.03(6).

10. This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards.

TAPCR 1200-03-09-.03(8)

11. This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application.

TAPCR 1200-03-09-.01(1)(d)

12. This permit is valid only at this location.

TAPCR 1200-03-09-.03(6)

13. The permittee shall apply for renewal of this permit not less than sixty (60) days prior to the permit expiration date, pursuant to Division Rule 1200-03-09-.02(3). The application shall be delivered to the East Tennessee Permit Program at the address below or via email to Air.Pollution.Control@tn.gov

Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

TAPCR 1200-03-09-.02(3)(b)

(end of conditions)

The permit application gives the location of this source as 700220.7 UTM Vertical, 3907683 UTM Horizontal.

