STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243

OPERATING PERMIT Issued Pursuant to Tennessee Air Quality Act

Date Issued: October 2, 2017	Permit Number 072620
Date Expires: November 1, 2026	
Issued To: PHG Energy Covington Waste Water Treatment Plant	Installation Address: 298 Witherington Drive Covington
Installation Description: Gasifier thermal oxidizer process using chipped woody biomass and municipal sludge as feedstock to a gasifier; Producer gas to thermal oxidizer provides heat used for hot oil in a generator and biomass dryer, Cyclone Control	Emission Source Reference No. 84-0124-01 NSPS (Federal) 40 CFR 61 Subpart E

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 letter that was utilized in the preparation of this permit is dated March 13, 2017, and is signed by Tim Van Drew, Manager, Operations and Service 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.

(conditions continued on next page)

Michelle W. Owenby
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 heat input capacity for this source shall not exceed 8,000,000 British Thermal Units per hour (8.0 MMBTU/Hr.). A construction permit must be obtained before exceeding this capacity. The Technical Secretary may require the permittee to prove compliance with this rate. TAPCR 1200-03-10-.01

3. Particulate matter (TSP) emitted from this source shall not exceed 2.78 pounds per hour and 12.17 tons per year.

   This emission limitation is based on mutual agreement letter dated July 15, 2014 which is more restrictive than the allowable under TAPCR 1200-03-.06-.02(2).

4. Nitrogen oxides (NOx) emitted from this source shall not exceed 3.92 pounds per hour and 17.17 tons per year.

   This emission limitation is established pursuant to Rule 1200-03-06-.03(2) of the Tennessee Air Pollution Control Regulations and AP-42 emission factors tables 1.4-1 and 1.4-2.

5. Carbon Monoxide (CO) emitted from this source shall not exceed 4.8 pounds per hour and 21.02 tons per year.

   This emission limitation is established pursuant to Rule 1200-03-06-.03(2) of the Tennessee Air Pollution Control Regulations and AP-42 emission factors table 1.4-1 and 1.4-2.

6. Sulfur dioxide emissions from this source shall not exceed 2.0 pounds per hour and 8.76 tons per year.

   This emission limitation is established pursuant to Rule 1200-03-06-.03(2) of the Tennessee Air Pollution Control Regulations and AP-42 emission factors table 1.4-1 and 1.4-2.

7. Only chipped wood biomass and municipal sludge shall be used as fuel for this source. Natural gas shall be used as alternative fuel only. TAPCR 1200-03-.09-.01(1)(d).

8. Visible emissions from thermal oxidizer or stacks 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). TAPCR 1200-03-05-.03(6) and TAPCR 1200-3-5-.01(1)

9. Compliance with the emission limits in **Conditions 3, 4, 5 and 6** is based on compliance with **Conditions 2 and 7** of this permit. Additionally, particulate compliance has been assured based on particulate test results indicating 0.85 pounds per hour emitted during the April 15, 2014 source test. This was acknowledged by the Division's Compliance Validation letter dated September 30, 2014.

10. This source is subject to 40 CFR part 61 Subpart E "National Emission Standard for Mercury". In rule applicability determinations dated December 7, 2010 and December 19, 2013 the USEPA has stated that a combination of a gasifier and thermal oxidizer is a sewage sludge incinerator to which Subpart E applies. The permittee shall meet the following requirements:

§ 61.52 Emission standard

Emissions to the atmosphere from sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges shall not exceed 3.2 kg (7.1 lb) of mercury per 24-hour period.

Initial sludge sampling and analysis meeting the requirements of 40 CFR 61.54 was conducted on April 15, 2014 with the results being dated May 21, 2014. If the Technical Secretary requires that additional sludge sampling and analysis be conducted, the procedures for notification, conducting the actual sampling and analysis, and the calculation of the results obtained shall be in accordance with the provision set forth in 40 CFR 61.54. In addition the following requirements shall be adhered to:

(e) No changes in the operation of a plant shall be made after a sludge test has been conducted which would potentially increase emissions above the level determined by the most recent sludge test, until the new emission level has been estimated by calculation and the results reported to the Technical Secretary.

(f) All sludge samples shall be analyzed for mercury content within 30 days after the sludge sample is collected. Each determination shall be reported to the Technical Secretary by a registered letter dispatched within 15 calendar days following the date such determination is completed.

(g) Records of sludge sampling, charging rate determination and other data needed to determine mercury content of wastewater treatment plant sludges shall be retained at the source and made available, for inspection by the Technical Secretary, for a minimum of 2 years.

Based on the sludge sampling and analysis conducted on April 15, 2014 with the results dated May 21, 2014; and the Division's Compliance Validation letter of September 30, 2014; the Division agrees that the monitoring of emissions and operations set forth in 40 CFR 61.55 is not applicable to this facility.

11. 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.

12. 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).

13. The permittee shall apply for renewal of this permit not less than sixty (60) days prior to the permit expiration date, pursuant to Rule 1200-03-09-.02(3) of the Tennessee Air Pollution Control Regulations. The completed application shall be delivered to the West Tennessee Permit Program at the address listed below:

Tennessee Division of Air Pollution Control William R. Snodgrass Tennessee Tower, 15th Floor 312 Rosa L. Parks Avenue Nashville, TN 37243	or	Adobe Portable Document Format (pdf) to: Air.Pollution.Control@tn.gov

(End of conditions)

The permit application gives the location of this source as 35.620247° Longitude and -89.611795° as Latitude.