PERMIT REVIEW SUMMARY

Permit Writer: John Kwoka Date: November 9, 2016

Company Name: Caledonia Energy Partners LLC, Caledonia Gas Storage Facility

Facility Location: 500 Flint Hill Road

Caledonia, MS 39740

Source Number: 1680-00063

County: Lowndes

Project Description

Caledonia Energy Partners, LLC are applying for a reissuance of their existing Synthetic Minor Operating permit. The facility is a natural gas storage facility which receives natural gas via pipeline and dehydrates the natural gas before pumping out the gas for distribution. There are several emission sources located at the facility. These sources include three (3) natural gas fired compressors, four (4) line heaters, two (2) natural gas fired reboilers, one (1) emergency generator, one (1) natural gas fired boiler, one (1) thermal oxidizer, and miscellaneous above ground storage tanks.

Without restrictions, the facility’s potential emissions of Carbon Monoxide (CO) and Volatile Organic Compounds (VOCs) exceed the Title V threshold limits of 100 tons per year. Furthermore, the facility’s potential-to-emit Hazardous Air Pollutants (HAPs) would exceed the Title V threshold limits of 25 tons per year total HAPs and/or 10 tons per year of any individual HAP. However, after accounting for all federally enforceable HAP emission controls, namely the thermal oxidizer, AA-014, the potential emissions from the facility are reduced to below the Title V thresholds. This facility is currently considered to be an area source of HAPs.

New Source Performance Standards (NSPS)

Emission Point AA-012 is an 800 kW compression ignition, diesel fired emergency generator which was manufactured after July 11, 2005 and installed after April 1, 2006 with a displacement of >10 Liters per cylinder. As such, this engine is subject to and shall comply with all applicable requirements of 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

Emission Points AA-001, AA-002, and AA-003 are 3550 HP 4-Stroke, Lean Burn, Spark Ignition reciprocating internal combustion engines. They are considered non-remote RICE and are non-emergency engines. As such, these engines are subject to and shall comply with all applicable requirements of 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Synthetic Minor Limitations and Changes to Existing Permit Conditions

In order to remain below the Title V thresholds for CO, the permittee must continue to use its existing compressors (i.e. AA-001, AA-002, and AA-003) which use oxidation catalysts to reduce their CO emissions to below the Title V thresholds. Furthermore, the permittee shall limit the CO emissions from each compressor to no more than 1.37 pounds per hour and 6.00 tons per year for any consecutive 12-month period on a rolling basis.

In order to remain below the Title V thresholds for VOC, the permittee must continue to operate the vent gas thermal oxidizer as outlined in the permit. Furthermore, the permittee shall limit the VOC emissions from AA-001, AA-002, and AA-003 to no more than 2.39 pounds per hour and 10.46 tons per year each for any consecutive 12-month period on a rolling basis. The VOC emissions from AA-014 shall also be restricted to no more than 0.37 pounds per hour and 1.34 tons per year for any consecutive 12-month period on a rolling basis.

In order to remain below the Title V thresholds for HAPs, the permittee must continue to operate the vent gas thermal oxidizer as outlined in the permit. Furthermore, the permittee shall limit the emissions of Formaldehyde from AA-001, AA-002, and AA-003 to no more than 0.696 pounds per hour and 3.05 tons per year each for any consecutive 12-month period on a rolling basis. The HAP emissions from AA-014 shall also be restricted to no more than 0.53 tons per year for any consecutive 12-month period on a rolling basis.

The permittee also has restrictions on the hours of operation for the line heaters (AA-004 through AA-007) and a restriction on the amount of natural gas combusted in the glycol dehydrator reboilers (AA-008 and 009) to further restrict CO, VOC and HAP emissions.

In the previous permit, Emission Points AA-004 through AA-007 had both an hour per year restriction and a heat input restriction. Since the two requirements were redundant, the draft permit only has the hours per year restriction and the heat input restriction will be removed from the permit.

In the previous permit, the emergency generator, AA-012, had an operational restriction of 250 hours per year. This engine is subject to the NSPS IIII which restricts the operation of the emergency engine to 100 hours per year non-emergency operation. Since the emergency engine definition restricts the operation of the engine, the 250 hours/year restriction has been removed from this permit.

**Public Participation**

The 30-day public notice period began on November 16, 2016, with the publication of a notice in The Dispatch.

**Recommendation**

The staff has preliminarily decided to recommend issuance of the permit to the Mississippi Environmental Quality Permit Board as shown in the draft permit. However, the staff recommendation to the Board will be made only after a thorough consideration of all public comments.