INFORMATION RELATIVE TO
THE DRAFT TITLE V OPERATING PERMIT
November 2024

GENERAL FACILITY INFORMATION

Facility Name: Clarksdale Public Utilities, Lewis L Wilkins Generating Station
Facility Address: 240 Hicks Street, Clarksdale, MS 38614
County: Coahoma
SIC Code(s): 4911
NAICS Code(s): 221112

APPLICATION SUMMARY

Permit No.: 0540-00063
Permit Action: Renewal
Permit Folder: PER20230001
Application Receipt Date: June 26, 2023
Application Deemed Complete: {Use administrative completeness date}
CBI Submitted? No

NSPS (Part 60): N/A
NESHAP (Part 61): N/A
NESHAP (Part 63): N/A
112(r) / RMP: N/A
Other: N/A

FACILITY DESCRIPTION

The Clarksdale Public Utilities, Lewis L. Wilkins Generating Station (CPU) is an existing electrical power generating facility located in Clarksdale, Mississippi. The facility is currently permitted to operate a steam boiler and two (2) combined cycle combustion turbines to produce electrical power. The table below contains a detailed list of the significant emission points contained in the proposed permit.

Emission Point	Description
AA-002	140.8 MMBtu/hr Natural Gas/#6 Fuel Oil/#2 Fuel Oil Fired Combustion Engineering Steam Boiler (No. 7 Steam Boiler)
AA-003	235 (LHV)/ 317 (HHV) MMBtu/hr Natural Gas/#2 Fuel Oil Fired General Electric Combined Cycle Combustion Turbine (No. 8 Turbine)
AA-004	227.2 (LHV)/ 306.5 (HHV) MMBtu/hr Natural Gas/#2 Fuel Oil Fired General Electric Combined Cycle Combustion Turbine (No. 9 Turbine)

TITLE V SOURCE APPLICABILITY

The facility's potential-to-emit (PTE) exceeds the Title V major source threshold of 100 tons per year (tpy) for each of the following criteria air pollutants: Nitrogen Oxides (NO_x), Carbon Monoxide (CO), Sulfur Dioxide (SO_2), Particulate Matter less than 10 microns (PM_{10}) and Particulate Matter less than 2.5 microns ($PM_{2.5}$). The facility's potential-to-emit hazardous air

pollutants (HAP) does not exceed the major source threshold of 25 tpy of total HAPs and 10 tpy for any individual.

Facility-Wide Potential-to-Emit Summary[1]

Pollutant	PTE Emissions (tons/yr)
Particulate Matter (TSP)	614.78
PM_{10}	614.78
$PM_{2.5}$	612.75
Sulfur Dioxide (SO_2)	8,011.43
Nitrogen Oxides (NO_x)	1,378.44
Carbon Monoxide (CO)	274.49
Volatile Organic Compounds (VOC)	51.98
Total Reduced Sulfur (TRS)	0.00
Lead	0.34
CFC/HCFC	0.00
Total HAP	4.56

[1] The PTE emissions reflect any emission limits or enforceable restrictions included in the proposed permit.

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) APPLICABILITY

The facility is one of the 28 categorical facilities listed in 40 CFR 52.21(b)(1)(i)(a); therefore, the PSD threshold for a major source is 100 tpy. The facility has the potential to emit more than 100 tons per year of PM_{10}, $PM_{2.5}$, SO_2, NO_x, and CO; therefore, the facility is considered a major stationary source. This permitting action will not change the current PSD status of the facility.

FACILITY MODIFICATIONS AND/OR PERMIT CHANGES

There are no modifications to the facility or other significant permit changes proposed as part of this permitting action. The following minor changes are being incorporated as part of this permitting action.

1) The previous permit indicated the 4.8 lbs/MMBtu (SO_2) state regulation was applicable to the combustion turbines (CT's). That state regulation is applicable sources that produce heat or power by indirect heat transfer. The combustion gases are used in a heat recovery steam unit to produce steam for the generator, but the CTs are not subject to the state SO_2 standards.
2) Condition 3.B.5 was removed from the previous permit since it was a statement of non-applicability to 40 CFR 63, Subpart YYYY (AA-003/AA-004). That information is contained herein.

3) Condition 3.B.4 was removed from the previous permit since it was a statement of non-applicability to 40 CFR 63, Subpart UUUUU for AA-002, AA-003, and AA-004. That information is contained herein.
4) Revised the subsequent performance test requirement in Condition 5.B.2 to address infrequent operation. The previous permit only addressed the initial test.
5) Revised the test report submittal period from 30 to 60 days.
6) Removed the language in Condition 5.C.3 of the previous permit where the facility was required to maintain records of diesel burned in the "fire pump engine". There is no fire pump engine at the facility.

COMPLIANCE ASSURANCE MONITORING (CAM) APPLICABILITY

40 CFR Part 64 specifies the requirements for CAM. The general applicability of this rule can be found in 40 CFR 64.2 and requires a Title V source to comply with the CAM requirements if all three of the following criteria are met for a pollutant-specific emission unit (PSEU):

1. The unit is subject to an emission limitation or standard for a regulated air pollutant other than exemptions under 40 CFR 64.2(b)(1);
2. The unit uses a control device to comply with the standard; and
3. The unit has pre-control emissions exceeding Title V major source threshold.

There is no control equipment associated with the emission unit (AA-003) subject to an emission limit or standard at this facility, so Compliance Assurance Monitoring does not apply.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) APPLICABILITY

- ***40 CFR 63, Subpart DDDDD, NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*** **-** The provisions of Subpart DDDDD are applicable to boilers and process heaters located at major sources of HAP. The facility is considered an area source of HAP emissions. As such, the boiler (AA-002) is not subject to the requirements of Subpart DDDDD.

- ***40 CFR 63, Subpart JJJJJJ, NESHAP for Industrial, Commercial, and Institutional Boilers at Area Sources*** **-** The provisions of Subpart JJJJJJ are potentially applicable to industrial, commercial, or institutional boilers that are located at an area source of HAP. While Emission Point AA-002 is permitted to burn natural gas and No. 2 and No. 6 fuel oil, the boiler meets the definition of a gas-fired boiler in 40 CFR 63.11237 (i.e., burns gaseous fuel and only burns liquid fuels during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel). Per 40 CFR 63.11195(e), gas-fired boilers as defined in Subpart JJJJJJ are not subject to the requirements of Subpart JJJJJJ. If the facility chooses to burn fuel oil in such a manner that the boiler no longer meets the definition of a gas-fired boiler, the facility must comply with the applicable provisions of Subpart JJJJJJ.

- ***40 CFR 63, Subpart UUUUU, NESHAP for Coal and Oil-Fired Electric Utility Steam Generating Units*** **-** The provisions of Subpart UUUUU are applicable to coal or oil-fired electric utility steam generating units (EGU). All combustion units (i.e., boilers, turbines) at the facility are permitted to burn both natural gas and fuel oil. None of these combustion units serve a 25 MWe generator; therefore, they do not meet the definition of an electric utility steam generating unit contained in 40 CFR 63.10042. As such, these combustion units are not subject to the requirements of Subpart UUUUU.

- ***40 CFR 63, Subpart YYYY, NESHAP for Stationary Combustion Turbines*** **-** The provisions of Subpart YYYY are applicable to stationary combustion turbines located at major sources of HAP emissions. The facility is considered an area source of HAP emissions; therefore, the turbines are not subject to the requirements of Subpart YYYY.

- ***40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines*** - The provisions of Subpart ZZZZ are applicable to stationary reciprocating internal combustion engines located at area and major sources of HAP emissions. The facility is considered an area source of HAP and does have engines (i.e., generators, welders); however, all engines are considered to be mobile engines that do not meet the definition of a stationary reciprocating internal combustion engine in 40 CFR 63.6675 of Subpart ZZZZ. As such, there are no engines at the facility subject to the provisions of Subpart ZZZZ.

NEW SOURCE PERFORMANCE STANDARDS (NSPS) APPLICABILITY

- ***40 CFR 60, Subpart D, Standards of Performance for Fossil Fuel-Fired Steam Generators*** **-** The provisions of Subpart D are applicable to each fossil fuel-fired steam generating unit of more than 250 MMBtu/hr that commenced construction or modification after August 17, 1971. The boiler (Emission Point AA-002) does not have a heat input that exceeds the applicability threshold and the boiler was constructed prior to the applicability date. As such, the provisions of Subpart D are not applicable to the boiler.

- ***40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units*** **-** The provisions of Subpart Da are applicable to each fossil fuel-fired steam generating unit of more than 250 MMBtu/hr that commenced construction or modification after September 18, 1978. The boiler (Emission Point AA-002) does not have a heat input that exceeds the applicability threshold and the boiler was constructed prior to the applicability date. As such, the provisions of Subpart Da are not applicable to the boiler.

- ***40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*** **-** The provisions of Subpart Db are applicable to steam generating units which are constructed, modified, or reconstructed after June 19, 1984, and that have a heat input capacity in excess of 100 MMBtu/hr. The boiler (Emission Point AA-002) has a heat input capacity in excess of the applicability threshold; however, it was constructed prior to the applicability date. As such, the provisions of Subpart Db are not applicable to the boiler.

- ***40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines -*** The provisions of Subpart GG are applicable to stationary gas turbines with a heat input at peak load equal to or greater than 10 MMBTU/hr and that were constructed after October 3, 1977. Although Emission Points AA-003, and AA-004 have a heat input greater than the applicability threshold, they were constructed prior to the applicability date. Additionally, while Emission Point AA-003 was modified from a simple cycle to a combined cycle unit, it was determined that this modification did not trigger modification or reconstruction. As such, neither of these units are subject to the requirements of Subpart GG.
- ***40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines*** - The provisions of Subpart IIII are applicable to stationary CI engines that commenced construction after July 11, 2005, and the engine was manufactured after April 1, 2006. The facility does have engines (i.e., generators, welders); however, all engines are considered to be mobile engines that do not meet the definition of a stationary internal combustion engine in 40 CFR 60.4219 of Subpart IIII. As such, there are no engines at the facility subject to the provisions of Subpart IIII.
- ***40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines*** - The provisions of Subpart JJJJ are applicable to stationary SI engines that commenced construction after the dates contained in 40 CFR 60.4230(a)(1) through (6). The facility does have engines (i.e., generators, welders); however, all engines are considered to be mobile engines that do not meet the definition of a stationary internal combustion engine in 40 CFR 60.4248 of Subpart JJJJ. As such, there are no engines at the facility subject to the provisions of Subpart JJJJ.
- ***40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines -*** The provisions of Subpart KKKK are applicable to stationary combustion turbines with a heat input at peak load equal to or greater than 10 MMBTU/hr and that commenced construction after February 18, 2005. Emission Points AA-003 and AA-004 are combustion turbines with a heat input greater than 10 MMBTU/hr; however, they were constructed prior to the applicability date. As such, these units are not subject to the requirements of Subpart KKKK.

SPECIFIC APPLICABLE REQUIREMENTS

Emission Point No.	Pollutant	Draft Permit Emission Limits	Monitoring Requirements
AA-002 AA-003 AA-004	PM/PM_{10} (filterable)	$E = 0.8808*I^{-0.1667}$	The margin of compliance is significant and warrants no additional monitoring
AA-002	SO_2	4.8 lbs/MMBtu	Monthly fuel records
AA-003	PM/PM_{10} (filterable)	≤ 5.0 lbs/hr not to exceed 21.9 TPY	Maintain records of fuel usage and calculate emissions on a monthly and 12-month rolling total basis
	SO_2	≤ 62.7 lbs/hr not to exceed 274.6 TPY	
	NO_x	≤ 112.0 lbs/hr not to exceed 490.6 TPY	Biennial performance test
	Opacity	≤ 40 %	The margin of compliance is significant and warrants no additional monitoring
	Sulfur Content of Fuel	≤ 0.17 % by weight	Maintain fuel usage records which document sulfur content of fuel(s) used

OTHER REQUIREMENTS:

The facility is not subject to the requirements of the Acid Rain Program contained in 40 CFR 72-78 since none of the units serve a generator with a nameplate capacity of greater than 25 MWe. Per 40 CFR 72.6(b)(2), units that commenced operation before November 15, 1990, and did not then and do not now serve a generator with a nameplate capacity of greater than 25 MWe are not considered affected units subject to the requirements of the Acid Rain Program. The generators at the facility have a reported nameplate capacity of 6.8, 13.2, and 22 MWe.

The facility is not subject to the requirements of the Cross-State Air Pollution Rule NO_x Ozone Season Group 2 Trading Program found in 40 CFR 97, Subpart EEEEE since none of the units serve a generator with a nameplate capacity greater than 25 MWe as required in 40 CFR 97.4.