MDEQ Response to Comments

Facility: Entergy Mississippi, LLC – Traceview Advanced Power Station

Permit Action: PSD Permit to Construct Air Emissions Equipment

Permit No.: 1720-00100

Agency Interest No.: 89056

On June 10, 2025, the Mississippi Department of Environmental Quality (MDEQ) received an application and associated air modeling data from Entergy Mississippi, LLC requesting a Prevention of Significant Deterioration (PSD) Permit to Construct Air Emissions Equipment ("Permit to Construct") for the proposed construction and operation of a combined cycle base load power plant to be located at 1972 West County Line Road, Ridgeland, Mississippi and to be named "Traceview Advanced Power Station" (to be referenced as "TAPS" hereafter).

Entergy Mississippi, LLC proposes to construct a Greenfield "on-the-grid" natural gas-fired combined cycle power plant that will nominally generate 750 megawatts (MW) of electrical power. The proposed power generation primarily entails the operation of one (1) Mitsubishi Model M501JAC combustion turbine equipped with supplementary-fired duct burners and a heat recovery steam generator (HRSG). The proposed emission control technology to be utilized includes an ammonia-based selective catalytic reduction (SCR) system to reduce emission of nitrogen oxides (NO_X) and a catalytic oxidation unit to reduce the emission of carbon monoxide (CO) and volatile organic compounds (VOCs). The proposed facility will not utilize any cooling water towers.

Upon the development of a draft PSD Permit to Construct and the corresponding support document (i.e., the "Preliminary Determination"), MDEQ provided a 30-day public comment period that spanned April 8, 2026, to May 8, 2026. At the conclusion of this period, MDEQ received thirty (30) written comments expressing various concerns regarding the proposed project. Of the overall thirty comments, sixteen (16) specifically requested that MDEQ hold a public hearing for the proposed air permitting action. Upon review of the request, MDEQ granted the request for a public hearing..

In accordance with the agency's administrative regulations, MDEQ provided a 30-day notice of the public hearing through electronic transmission of an initial notification on June 10, 2026. Accordingly, the public hearing was held on July 14, 2026, at the Greater Pearlie Grove Missionary Baptist Church (1640 West County Line Road; Jackson, MS 39213) from 5:30 to 8:00 PM. To ensure meaningful public involvement, the Air Division coordinated with the Office of Community Engagement to issue flyers within applicable communities to provide notification of the public hearing. As such, five hundred eighty-eight (538) flyers were mailed to various residents, local officials, and local community centers. During the public hearing, nineteen (19) separate parties verbally expressed comments of concern regarding the proposed project and one (1) individual – as a representative of Entergy Mississippi, LLC – provided a statement of clarity on the proposed project.

This document contains a summary of the written comments received during the public comment period, oral comments conveyed during the public hearing, and MDEQ's corresponding responses. The comments provided by the Better Data Center Project and Environmental Advocates Mississippi have been specifically addressed given their technical nature in addressing alleged issues with the permit application, conditions within the draft permit, and the application of air permitting

regulations. All comments received have been grouped under appropriate categories for the purpose of clarity and brevity.

The attached appendices contain the following information:

- Appendix A: Comments Received from The Better Data Center Project (BDCP) and Environmental Advocates Mississippi (EAM)
- Appendix B: Comments Received from Various Individuals Expressing Concerns
- Appendix C: Public Notice Documents and Associated Requests
- Appendix D: Certified Transcript of Public Hearing
- Appendix E: Written Comments Received During the Public Hearing
- Appendix F: Updated Draft PSD Permit to Construct Air Emissions Equipment
- Appendix H: Preliminary Determination ("Statement of Basis")

Written Comments from The Better Data Center Project (BDCP) and Environmental Advocates Mississippi (EAM)

Comment No. 1: *Ammonia Slip is not modeled, quantified, or monitored.*
(This comment has been broken down into subsections and will be addressed accordingly)

Comment No. 1.A: *Ammonia is a $PM_{2.5}$ Precursor.*

The TAPS facility will employ an ammonia-based Selective Catalytic Reduction (SCR) system to achieve the proposed BACT limit of 2.0 ppmvd NOx at 15% O_2. The SCR system requires continuous injection of aqueous ammonia from a 40,000-gallon pressurized storage tank.

Unreacted ammonia passes through the catalyst bed and exits the main stack as ammonia slip. In addition, Emission Point AA-006 covers ammonia fugitive emissions from piping components.
Despite the large-scale use of ammonia at this facility, the draft permit contains no ammonia slip limit for the main stack (AA-001), no continuous or periodic stack monitoring for ammonia, and only an Audio-Visual-Olfactory (AVO) inspection program for fugitive ammonia emissions (Condition 3.46). The air quality modeling does not include ammonia as a modeled pollutant.

Under EPA's 2008 NSR $PM_{2.5}$ Implementation Rule (73 FR 28321, May 16, 2008) and the 2016 $PM_{2.5}$ SIP Requirements Rule (81 FR 58009, August 24, 2016), ammonia is identified as a $PM_{2.5}$ precursor. The Statement of Basis also acknowledges this, stating: 'PM emissions can also result from the formation of sulfates and nitrates, which are formed when certain sulfur-oxide and nitrogen-oxide compounds react with ammonia.' Having acknowledged this formation pathway, the Statement of Basis then fails to quantify the ammonia that feeds it. Given the significant volume of ammonia used at this facility, we request that MDEQ require the applicant to quantify ammonia emissions and evaluate their contribution to ambient $PM_{2.5}$ concentrations and deny any permit application that does not include this analysis."

MDEQ Response: Upon further evaluation, MDEQ agrees with the commentor's determination that an ammonia (NH_3) slip limit is necessary for Emission Point AA-001 ("Combustions Turbine with HRSG and Steam Turbine Generator"). Accordingly, MDEQ has revised the draft PSD Permit to Construct to incorporate revisions to the following requirements:

- Condition 3.19 now establishes a limit of no more than 10 parts per million by dry volume (ppmvd) NH_3 at 15% oxygen (O_2) that is not to exceed 74.55 pounds per hour (excluding periods of startup, shutdown, and/or tuning) and 326.52 tons per year (including periods of startup, shutdown, and/or tuning).

- Condition 5.12 now establishes a requirement in which the facility must monitor the NH_3 concentration using a dual-stream NO_X continuous emission monitoring system (CEMS) at the outlet of the SCR. Accordingly, the NH_3 concentration shall be determined as the difference between the converted and unconverted NO_X concentrations. This new requirement will coincide with the existing Condition 5.5 that requires the facility to conduct an initial performance test on Emission Point AA-001 in accordance with specified relative accuracy test audit (RATA) methods to demonstrate compliance applicable NO_X emission limits and demonstrate adequate operation of the CEMS.

- Conditions 6.9 and 6.11 establish reporting requirements for the NO_X CEMS monitoring data to ensure that compliance with the established limits is met.

The commentor also states that NH_3 is not included as a modeled pollutant. Consistent with 40 CFR 52.21(b)(50), MDEQ defines the regulated precursors for $PM_{2.5}$ as NO_X and sulfur dioxide (SO_2). The Tier 1 "modeled remission rates for precursors" (MERP) analysis conducted for this project (found in Appendix R of the "Air Quality Analysis" submitted December 8, 2025) appropriately accounts for the secondary formation of $PM_{2.5}$ resulting from these precursors reacting with background atmospheric constituents, including NH_3. Therefore, no further explicit modeling of ammonia emissions is required under federal PSD regulations.

Comment No. 1.B: *BACT Environmental Impacts and Prevailing National Practice*

"The Statement of Basis states that 'no evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.' However, selecting SCR as BACT introduces a new collateral emission—ammonia slip—that the permit must address. The BACT definition at 40 CFR 52.21(b)(12) requires that emission limitations be established 'taking into account energy, environmental, and economic impacts,' and ammonia slip is the principal environmental impact of SCR. The standard practice in other states' PSD permits is to include an enforceable ammonia slip limit as a condition of selecting SCR as BACT. The TAPS draft permit sets a limit for the pollutant SCR controls (NOx at 2.0 ppmvd) but imposes no limit on the pollutant SCR emits (ammonia). This is an incomplete BACT determination.

A review of EPA's RACT/BACT/LAER Clearinghouse (RBLC) reveals that PSD permits for combined cycle gas turbines with SCR routinely include enforceable ammonia slip limits. Common limits range from 2 to 10 ppmvd at 15% O_2, with 5 ppmvd on a 24-hour or 3-hour average being the most frequent specification. States imposing such limits include California (CARB guidance: 5 ppm for large gas turbines), Connecticut, Idaho, Massachusetts, New Mexico, New York, and Texas,2 among others."

MDEQ Response: As initially stated in MDEQ's response to Comment 1.A, MDEQ has established ammonia (NH_3) emission limit of no more than 10 ppmvd at 15% O_2 based on a 24-hour rolling average of one-hour averages, which is consistent with combined cycle natural gas-fired turbines upon review of EPA's RBLC.

Moreover, as the commentor alleges that Entergy failed to account for NH_3 within the proposed best available control technology (BACT) determination, MDEQ must denote that the evaluation of BACT under the Federal PSD regulations only applies to new source review (NSR) pollutants, of which ammonia is not listed. As such, Entergy was not required to evaluate BACT as it relates to NH_3 emissions, and the NH_3 emission limit imposed by MDEQ within the updated draft PSD Permit to Construct will not be considered a federal BACT limitation but instead a state-imposed limit.

Comment No. 1.C: *SCR Catalyst Degradation*

"SCR catalyst activity decreases over time due to thermal aging, chemical poisoning, and physical degradation. As the catalyst degrades, the operator must increase ammonia injection rates to maintain the 2.0 ppmvd NOx limit, which directly increases ammonia slip. Vendor- guaranteed catalyst life for gas-fired applications is typically 3 to 5 years. See EPA Air Pollution Control Cost Manual, Section 4, Chapter 2: SCR (2019).

Without an enforceable ammonia slip limit, there is no regulatory mechanism to ensure timely catalyst replacement. As catalyst activity declines, ammonia slip increases progressively, and the permit as drafted places no upper bound on those emissions."

MDEQ Response: Please see MDEQ's response to Comment 1.A. Due to the implementation of the referenced NH_3 emission limit (which is to serve as an ammonia slip limitation), the operation of a degraded catalyst beyond that which will allow ammonia concentrations more than the established limit is prohibited.

Comment No. 1.D: *Monitoring Deficiency*

"The permit requires a NOx continuous emission monitoring system (CEMS) (Condition 5.6), and the same measurement infrastructure can accommodate ammonia slip monitoring. Ammonia slip analyzers are commercially available at capital costs of $40,000 – $70,000 per measurement point (EPA Air Pollution Control Cost Manual, 2019). For a facility with an estimated capital cost exceeding $1 billion, this is a negligible incremental cost.

Under 40 CFR 52.21(j) and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11), BACT conditions must be accompanied by monitoring sufficient to assure compliance. The absence of any ammonia limit means there is no ammonia monitoring, and the permit cannot verify that ammonia emissions remain at the levels assumed in the emission inventory."

MDEQ Response: Please see MDEQ's response to Comment 1.A.

Comment No. 1.E: *Nuisance Standard and Residential Proximity*

"The draft permit contains Condition 1.13, which prohibits emissions 'in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance' (referencing 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)). The only ammonia monitoring in the permit is the AVO (Audio-Visual-Olfactory) inspection program for fugitive emissions at Emission Point AA-006 (Condition 3.46). This is inadequate to ensure compliance with the nuisance standard at the nearest residences for two reasons. First, AVO inspections are designed to detect gross leaks from piping components, not to quantify continuous ammonia slip from a 200-foot main stack. Second, the human odor detection threshold for ammonia (approximately 5–50 ppm) is substantially higher than the concentration levels at which ammonia causes respiratory effects in sensitive individuals. ATSDR's Minimal Risk Level for acute inhalation exposure to ammonia is 1.7 ppm (ATSDR, Toxicological Profile for Ammonia, 2004). With occupied residences less than 0.25 miles from the facility, the permit should include an enforceable ammonia slip limit at the main stack sufficient to ensure that ground-level ammonia concentrations at the nearest residences remain below health-protective thresholds, rather than relying on periodic fence-line odor inspections that cannot detect sub-odor-threshold emissions."

MDEQ Response: Please see MDEQ's response to Comment 1.A.

Comment No. 1.F: *Section 112(r) and Accidental Release*

"The 40,000-gallon aqueous ammonia storage tank may trigger Risk Management Plan (RMP) requirements under CAA Section 112(r)(7) if the stored quantity exceeds the applicable threshold (10,000 lbs for anhydrous ammonia or 20,000 lbs for aqueous ammonia at concentrations ≥20%). See 40 CFR 68.130. The proximity of residences at less than 0.25 miles from the facility makes the accidental release scenario particularly consequential. The Statement of Basis must confirm whether RMP requirements apply and describe the safeguards in place."

MDEQ Response: The Chemical Accident Prevention Provisions found in Title 40, Chapter I, Subchapter C, Part 68 within the Code of Federal Regulations are the regulations that require a facility to create and manage a Risk Management Plan. Applicability to these regulations is not effective until the facility has more than a threshold quantity of a regulated substance in a process. Although Entergy applied for authorization to construct an ammonia storage tank, the Chemical Accident Prevention Provisions are not applicable until the process has more than the applicable threshold for ammonia – whether it be anhydrous ammonia or aqueous ammonia.

Comment No. 1.G: *Permit Conditions*

"*The permit must meet the following conditions:*

- *An enforceable ammonia slip limit for Emission Point AA-001 of no more than 5 ppmvd NH_3 at 15% O_2 on a 24-hour average basis, consistent with RBLC precedent.*

- *An initial compliance stack test for ammonia during the performance test required under Condition 5.1.*

- *Continuous ammonia monitoring to verify continued compliance as SCR catalyst ages.*

- *Quantification of total ammonia emissions (slip plus fugitive) in the facility emission inventory. This quantification should consider how ammonia slip varies with ambient temperature and with SCR catalyst age.*

- *Inclusion of ammonia emissions in the $PM_{2.5}$ secondary formation analysis and the 24-hour and annual $PM_{2.5}$ increment consumption modeling.*

MDEQ Response: Please see MDEQ's responses to Comments 1.A, 1.B, 1.C, and 1.D.

Comment No. 2: *Inconsistencies in reported emissions and inadequate public disclosure of increment consumption.*

"The Statement of Basis reports annual NO_X emissions of 308 tpy, whereas the draft permit only reports 222.84 tpy of NO_X. The permit should not be approved with inconsistent emissions totals across different documents.

In addition, the public notice fails to clearly disclose all of the relevant information from the Statement of Basis and the PSD application. Indeed, the selective disclosure of NAAQS increment consumption for certain species and not others is misleading and attempts to minimize the potential emissions and environmental effects from this site. For example, the public notice reports PSD Class II increment consumption for PM_{10} (0.59% annual and 4.56% 24-hour) and NO2 (0.96% annual), but makes no mention of $PM_{2.5}$, which has tighter increments and over three times higher increment consumption than PM_{10}. The Statement of Basis does report $PM_{2.5}$ increment analysis results (Table 12-8 shows a 24-hour $PM_{2.5}$ increment impact of 1.270 $\mu g/m^3$, which exceeds the NAAQS significant impact level and consumes 14% of the 9 $\mu g/m^3$ limit), but this information should be disclosed clearly in the public notice to allow meaningful public comment.

We request that the $PM_{2.5}$ increment consumption for both annual and 24-hour averaging periods be disclosed in the public notice and addressed in any public hearing. We also request, as discussed above in Section 1, that modeling of 24-hour and annual $PM_{2.5}$ increment consumption consider secondary $PM_{2.5}$ formation due to ammonia emissions. For complete transparency, both the 1-hour and annual NO_2 increment consumption should also be disclosed."

MDEQ Response:

1. **NO_X Emission Totals (308 tpy vs. 222.84 tpy):** MDEQ must clarify that there is no inconsistency in the reported NO_X emission totals. Instead, the two (2) denoted values represent different modeling and regulatory applications as required by Federal PSD regulations:

    - <u>*308.0 tpy (Annualized Daily PTE)*</u>: This value is an "annualized daily" potential-to-emit (PTE). It is calculated by taking the maximum potential emissions from a single 24-hour period (including startup and shutdown events) and multiplying it by 365. This conservative value is used specifically for short-term (24-hour) and secondary formation (Ozone and $PM_{2.5}$) MERP analyses to ensure that the "worst-case" daily impact is captured.

    - <u>*222.84 tpy (Annual PTE)*</u>: This value is the proposed annual emission limit for the facility and is the basis for demonstrating compliance with the respective Annual NAAQS and Annual PSD Increment.

The use of a higher, more conservative emission rate for short-term and secondary impacts is a standard practice in air quality modeling to ensure maximum environmental protectiveness.

2. **$PM_{2.5}$ Increment Disclosure:** MDEQ acknowledges the request for explicit disclosure of $PM_{2.5}$ increment consumption. The 24-hour and annual $PM_{2.5}$ increment results are as follows:

   - *24-hour $PM_{2.5}$ Increment Consumption*: The maximum modeled increment consumption (i.e., the second highest 24-hour value over five (5) years – including secondary $PM_{2.5}$) is **1.270 µg/m³**, which represents **14.1%** of the 9.0 µg/m³ Class II PSD increment limit.

   - *Annual $PM_{2.5}$ Increment Consumption*: The maximum modeled impact is **0.1012 µg/m³**, which represents **2.5%** of the 4.0 µg/m³ Class II PSD increment limit.

   These results were included in the full technical record and discussed in the Statement of Basis (i.e., the Preliminary Determination). While the public notice provides a summary of primary pollutants, the complete modeling results demonstrating compliance with all increments have been available for public review throughout the comment period.

3. **Secondary $PM_{2.5}$ Formation and Ammonia Emissions:** The modeling of secondary $PM_{2.5}$ formation was conducted in accordance with EPA's Appendix W and MERP guidance.

   - The analysis specifically included secondary $PM_{2.5}$ impacts derived from the project's NO_X and SO_2 emissions. The total 24-hour $PM_{2.5}$ increment impact of **1.270 µg/m³** explicitly includes the estimated secondary $PM_{2.5}$ contribution of **0.04907 µg/m³**.

   - Consistent with 40 CFR 52.21(b)(50), MDEQ defines the regulated precursors for $PM_{2.5}$ as NO_X and SO_2. The Tier 1 MERP analysis conducted for this project appropriately accounts for the secondary formation of $PM_{2.5}$ from these precursors reacting with background atmospheric constituents, including ammonia. No further explicit modeling of ammonia emissions is required under the Federal PSD regulations.

   - While ammonia can be a precursor to $PM_{2.5}$, the facility's ammonia emissions (i.e., the SCR slip) are minimized through the several requirements that MDEQ has established within the updated draft PSD Permit to Construct. In addition, the current MERP analysis for the primary precursors provides a robust and conservative demonstration of compliance.

4. **NO_2 Increment Consumption:**

   - *Annual NO_2 Increment*: The modeled annual NO_2 impact is **0.2396 µg/m³**, which consumes only **0.96%** of the 25 µg/m³ Class II increment limit. This impact is well below the significance impact level (SIL) **of 1.0 µg/m³**.

   - *1-Hour NO_2 Increment*: There is no regulatory PSD increment for the 1-hour NO_2 averaging period within the Federal regulations. However, the facility did demonstrate compliance with the 1-hour NO_2 NAAQS, with a modeled impact of **6.341 µg/m³**, which is below the applicable SIL of **7.5 µg/m³.**

Comment No. 3: *Cumulative Source Impacts*

"The NAAQS demonstration under 40 CFR 52.21(k)(1) requires the applicant to demonstrate that allowable emission increases, "in conjunction with all other applicable emissions increases or reductions", would not cause or contribute to a NAAQS violation. Under 40 CFR Part 51, Appendix W, Section 8.2, all nearby sources expected to cause a significant concentration gradient in the vicinity of the proposed source should be explicitly modeled in the cumulative impact analysis. While the Statement of Basis acknowledges this requirement ('The applicant is required, at a minimum, to explicitly model all nearby sources as part of the NAAQS analysis'), it does not specify which nearby sources are included in this analysis.

The Amazon Data Services facility under construction at 1626 County Line Road holds Permit No. 1720-00099 authorizing 391 diesel-fired emergency generators with a total capacity of 1060 MW. This facility is immediately adjacent to the TAPS site. Additionally, another Amazon Data Services site is under construction just 15 miles north at 1978 Highway 22 Canton, MS 39046 (Permit No. 1720-00098). This facility consists of 331 diesel-fired generators with a total capacity of 900 MW. We request that MDEQ publicly confirm whether the permitted emissions from the nearly 2 GW of diesel generators at these two sites were explicitly included as nearby sources in the full NAAQS impact modeling. If they were not, the cumulative NAAQS demonstration at near-field residential receptors is inadequate and incomplete. The potential NO_X emissions from these generators (249 tpy at each site, or 498 tpy total) greatly exceed those of TAPS, and could significantly impact the peak NO2 and PM2.5 concentrations experienced by the surrounding community.

Because these Amazon Data Services facilities are still under construction and not fully operational, it is not appropriate to account for these emissions using ambient air monitoring, and instead should be directly included in the full impact modeling analysis.

The cumulative analysis applies to every NAAQS pollutant that triggered PSD review, including NO_2, $PM_{2.5}$, and ozone. It is particularly consequential for the 1-hour NO_2 NAAQS, where the Statement of Basis reports a 1-hour NO_2 impact of 6.341 $\mu g/m^3$ against a Significant Impact Level of 7.5 $\mu g/m^3$ (85% of the screening threshold) and concludes no further analysis is required. Diesel engines produce high short-term NOx emission rates during operation. If TAPS and the AWS generators operate during the same hour—a plausible scenario during generator testing or grid stress events—the combined 1-hour NO_2 concentration at the nearest residential receptors could exceed the SIL and require a full cumulative impact analysis. This narrow margin also means that the underlying emission assumptions—particularly whether cold startup emission rates and worst-case ambient temperature conditions were used—warrant disclosure and verification."

MDEQ Response:

1. **Regulatory Basis for Excluding Intermittent Sources (1-hour NO_2):** MDEQ must initially clarify that it follows EPA's March 1, 2011, Memorandum titled "*Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard*" for such projects that may impact the 1-hour NO_2 NAAQS. In addressing the treatment of intermittent emissions (such as the emergency generators located at the denoted Amazon Data Services facilities), the referenced memorandum provides the following guidance:

- *On Continuous Operations*: EPA expresses concern that "assuming continuous operations for intermittent emissions would effectively impose an additional level of stringency beyond that intended by the level of the standard itself"

- *On Recommended Modeling Scenarios*: EPA recommends that "compliance demonstrations for the 1-hour NO_2 NAAQS be based on emission scenarios that can logically be assumed to be relatively continuous, or which occur frequently enough to contribute significantly to the annual distribution of daily maximum 1-hour concentrations".

- *On Reviewing Authority Discretion*: The memo states that "EPA believes that existing modeling guidelines provide sufficient discretion for reviewing authorities to exclude certain types of intermittent emissions from compliance demonstrations for the 1-hour NO_2 standard under these circumstances".

Because the emergency generators located at the denoted Amazon Data Services facilities do not operate on a relatively continuous basis and are not expected to operate simultaneously with the combustion turbine proposed by TAPS during normal operations, the exclusion of the emergency generators from the modeling inventory is consistent with this federal guidance.

In addition, regarding the commenter's reference to nearby sources that cause a "*significant concentration gradient*", MDEQ must note that this is no longer a metric for evaluation in Appendix W ("Guideline on Air Quality Models"). In 2017, EPA formally revised Appendix W (82 FR 5182; January 17, 2017) to replace it with whether a nearby source is adequately represented by the ambient monitoring data used for background concentrations. Moreover, EPA finalized additional revisions to Appendix W in 2024 (89 FR 95034; November 29, 2024; effective January 28, 2025) to remove the remaining concentration-gradient language. Under the current Appendix W [specifically Section 8.3.3(b)], nearby sources that are not adequately represented by ambient monitoring data should be explicitly modeled. Appendix W – Section 8.3.3(c)(ii) further provides that it is not necessary to model a nearby source that does not (by its nature) operate at the same time as the primary source "*regardless of an identified significant concentration gradient from the nearby source*". This is consistent with the treatment of the emergency generators located at the Amazon Data Services facilities denoted.

2. **PSD Increment and Baseline Dates ($PM_{2.5}$):** Regarding the cumulative increment analysis, MDEQ evaluated off-property sources in accordance with Section 8.2 of the revised Air Quality Analysis submitted December 8, 2025. The exclusion of nearby sources (including one of the denoted Amazon Data Services facilities) from the $PM_{2.5}$ increment modeling is supported by the following:

   - *Major Source Baseline Date*: MDEQ confirmed that no construction at any major stationary source of $PM_{2.5}$ in Madison or Hinds Counties commenced after the "October 20, 2010" major source baseline date that would have consumed increment prior to this application.

   - *Minor Source Baseline Date*: A review of MDEQ's internal "PSD Baseline Date Tracker" confirmed that no minor source baseline date for $PM_{2.5}$ had been established in Madison or Hinds Counties prior to the application requesting the construction and operation of TAPS.

- *Establishment of Baseline*: By submitting a complete PSD application, the proposed TAPS facility will be the $PM_{2.5}$ minor source baseline date for Madison County and Hinds County. Because the baseline date will be established by the proposed TAPS project, there were no pre-existing "increment-consuming" sources to include in the cumulative inventory.

3. **Significant Impact Level (SIL) Determination:** The requirement for a full cumulative impact analysis (which includes modeling nearby sources) is only triggered if the proposed project's individual impact exceeds the Significant Impact Level (SIL).

   - *1-Hour NO_2*: The modeled impact from the TAPS facility is **6.341 µg/m³**, which is below the EPA-established SIL of **7.5 µg/m³**.

   - *AQA Finding*: Because the project's impact is below the SIL, the facility is not considered to "cause or contribute" to a violation of the 1-hour NO_2 NAAQS. Therefore, a full cumulative modeling analysis of NO_2 emissions (including the explicit modeling of off-site nearby sources) is not required.

4. **Treatment of On-Site Intermittent Sources:** MDEQ must clarify that Entergy did include the on-site intermittent sources for TAPS facility [i.e., the emergency standby generator (Emission Point AA-002) and the fire pump engine (Emission Point AA-003) – found in Section 8.3.5 in the submitted "Air Quality Analysis" report] in its modeling demonstration. However, consistent with the denoted EPA Memo dated March 1, 2011, the referenced intermittent sources were modeled using a conservative annualized emission rate (maximum hourly rate multiplied by the ratio of permitted hours to total hours in a year) to represent their potential contribution to the annual distribution of 1-hour maximums.

5. **$PM_{2.5}$ and NO_2 NAAQS Compliance:** MDEQ clarifies that for the pollutants and averaging periods cited by the commenter, the TAPS facility's impacts were below the applicable SILs. Under Federal PSD regulations, , it is considered "*de minimis*" if a modeled impact from the proposed project is below the SIL. Accordingly, no further cumulative modeling (i.e., explicit modeling of off-site sources) is required for that pollutant.

   - *1-Hour NO_2 NAAQS*: The impact from the proposed project is **6.341 µg/m³**, which is below the SIL of **7.5 µg/m³**.

   - *24-Hour $PM_{2.5}$ NAAQS*: The impact from the proposed project is **1.025 µg/m³**, which is below the SIL of **1.2 µg/m³**.

   Because the modeled impacts are below their respective SILs, the cumulative NAAQS demonstrations were appropriately concluded by adding the project's impact to the representative background monitoring data. This methodology is consistent with MDEQ and EPA policy. The full cumulative modeling analysis was only triggered for the 24-hour $PM_{2.5}$ PSD Increment (where the impact was 1.417 µg/m³), and the corresponding analysis followed the EPA guidance pertaining to intermittent sources guidance (as previously discussed in this document).

6. **24-Hour $PM_{2.5}$ Increment Consumption and Baseline Date:** MDEQ provides the following clarification regarding the 24-hour $PM_{2.5}$ PSD Increment Analysis:

- *Establishment of Baseline Date*: The application associated with the proposed TAPS facility established the minor source baseline date for $PM_{2.5}$ in Madison County (as well as the Jackson Metropolitan Intrastate Air Quality Airshed). As such, pursuant to 40 CFR 52.21(b)(14), this defines the starting point for increment consumption in the area.

- *Compliance Status*: As the final modeling analysis illustrates the total 24-hour $PM_{2.5}$ increment consumption as 1.417 µg/m³, this total consumption represents only 15.7% of the allowable PSD Class II Increment of 9.0 µg/m³. Because the proposed TAPS project will establish the baseline date (contingent upon final permit approval), there were no pre-existing increment-consuming sources to include in the cumulative inventory. As such, the analysis demonstrates that the project complies with all Federal PSD increment requirements.

Written Comments Received during the Public Comment Period

Comment No. 4: A comment was received expressing concern about the adequacy of the MDEQ's BACT determination associated with the proposed TAPS project: "*The permit record does not sufficiently demonstrate that (1) All available control technologies were identified and ranked; (2) the lowest achievable emission rates were selected; and (3) rejection of more effective technologies was supported by robust quantitative analysis…The BACT determination appears to reflect commonly accepted industry practices, rather than the best demonstrated performance nationwide.*"

MDEQ Response: In accordance with PSD requirements listed in 40 CFR 51.166(j) and 52.21(j) and 11 Miss. Admin. Code Pt. 2, Ch. 5. Rule 5.1, a new major stationary source must apply BACT for the control of each regulated air pollutant emitted in significant quantities. Therefore, Entergy completed a BACT analysis for VOCs, particulate matter (PM), NO_X, and carbon monoxide (CO).

BACT is defined in the federal PSD regulation at 40 CFR 52.21(b)(12) as follows:

> *Best available control technology (BACT) means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR 60, 61, or 63. If the administrator determines the technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standards shall, to the degree possible, set for the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.*

The selection of BACT requires consideration of cost, environmental, and energy impacts. In accordance with relevant guidance, EPA recommends a "top-down" approach when evaluating commercially available and demonstrated air pollution control technologies for BACT. Note that a top-down approach is suggested by policy and not by regulation. For certain small emission sources, the BACT demonstration may depend on what is typically used in industrial applications as detailed in the RBLC information in Appendix C. Moreover, if a facility is subject to a Federal NSPS or NESHAP standard, the selected BACT must never result in an emission limit that is less stringent than any applicable NSPS and/or NESHAP rule.

The first step in the "top down" approach is to determine the most stringent demonstrated control technology available for a similar or identical source or source category for the emissions unit and the PSD pollutant in question. If it can be shown that this level of control is technically or economically infeasible for this project, the next most stringent level of control is then determined and similarly evaluated. This process continues until a control technology and associated emission level is determined that cannot be eliminated by any technical or economic infeasibility. The "top-down" approach was employed to evaluate available pollution controls for the proposed TAPS project.

The first issue brought forward in the comment states Entergy failed to demonstrate that all available control technologies were identified and ranked but does not expand upon which specific control technologies were excluded. Based on the NSR Manual document referenced above, EPA states that a facility must evaluate all "commercially available and demonstrated air pollution control technologies". Commercially available and demonstrated are key adjectives MDEQ focuses on when evaluating a BACT determination for a facility. For control technology to be relevant in BACT determinations, it must both be reasonable for a facility to purchase the control technology, and that the control technology has robust test data to back up the claims made by the manufacturer. Entergy demonstrated that all pieces of equipment with "demonstrated" control technologies that were "commercially available" for them to reasonably purchase for their facility were included in their BACT determination. Technologies that did not meet both criteria were not required to be included.

The second and third issues brought forward state that the lowest achievable emissions rates (LAER) were not selected and at times when they were not selected, a robust, quantitative analysis was not supplied. LAER is a pollution control standard that is required for major new or modified industrials sources located in areas of non-attainment. All areas of the state of Mississippi are currently classified as attainment. As such, Entergy is not subject to LAER requirements. Based on EPAs "top-down" approach in determining which BACT will be selected for a piece of equipment, the technology with the lowest achievable emission rate does not have to be selected if a facility can demonstrate that it is technologically or economically infeasible. At such times when Entergy did not select a control technology with the lowest achievable emission rate, they sufficiently demonstrated why that piece of technology was determined to be "infeasible" based upon EPA's criteria.

Comment No. 5: Comments were received expressing concerns about the potential depreciation of property values within the proximity of the proposed TAPS project. Some of the comments are as follows:

- "*Our property value would decrease.*"

- "*A 10 to 20 percent property value decline – which peer-reviewed research consistently documents near industrial facilities – would represent a transfer of wealth away from this community that no permit condition can remedy or reverse.*"

MDEQ Response: While MDEQ understands the expressed concerns, it must be stated that property-value impacts and other such related economic considerations are not factors that can be evaluated within MDEQ's environmental regulatory purview.

Comment No. 6: A comment was received expressing concern about the potential noise that will be generated from the proposed TAPS facility: "*The reported constant noises will be a nuisance.*"

MDEQ Response: While "noise pollution" is typically considered an aspect of environmental matters, MDEQ has no authority in the regulation of decibel levels (i.e. noise pollution). Such authority within the State of Mississippi resides solely with the local jurisdictional government (i.e., city or county) through the issuance of ordinances and local requirements.

Comment No. 7: Several comments were received expressing concern that the emissions from the proposed TAPS facility will cause long-term adverse health effects. Some of the comments are as follows:

- "*The health consequences of this plant are clear and well-documented. Emissions of fine particulate matter ($PM_{2.5}$) and nitrogen oxides (NO_X) from natural gas turbines are linked to respiratory and cardiovascular disease, asthma, and premature death-with children and seniors bearing the greatest risk.*

- "*Independent analysis by the EmPower Analytics Group projects that permitted pollution levels from Traceview will cause $18-$32 million in annual monetized health damages, including 1.1-2.1 premature deaths per year, alongside nonfatal heart attacks, respiratory ER visits, new asthma cases, and roughly 240 missed school days and 89 missed workdays annually. Over 30 years, these figures will grow to $538-$948 million in damages and 34-62 deaths.*"

- "*Studies of similarly sized combined cycle gas turbines have found measurable increases in emergency visits even when plants operate below permitted limits. Critically, there is no known safe level of $PM_{2.5}$ exposure-a landmark Harvard study of 68 million Medicare enrollees found a strong causal link between long-term $PM_{2.5}$ exposure and mortality even below current regulatory standards (Wu et al., Science Advances, 2020).*"

- "*As a person with an auto immune system, I am concerned with the effect this type of business will have on my health and the overall well-being of my neighbors.*"

- "*The primary risk is air pollution which can cause respiratory issues, cardiovascular diseases, cancer and other long-term health problems due to emissions stated in the permit request.*"

MDEQ Response: MDEQ must clarify that the National Ambient Air Quality Standards (NAAQS) are health-based standards established by the EPA specifically to protect public health – including sensitive populations such as children, the elderly, and individuals with compromised immune systems – with an adequate margin of safety. Therefore, compliance with the NAAQS is the Federal benchmark for ensuring air quality is safe for all citizens. Based on all information provided to

MDEQ, the potential allowable emissions from the proposed TAPS facility comply with all established NAAQS.

Comment No. 8: A comment was received alleging that applicable PSD thresholds were not correctly applied: "*I oppose lowering the PSD thresholds for the new Entergy plant… Please keep the current standards in place.*"

MDEQ Response: MDEQ must clarify that the proposed TAPS facility is not one of the categorical facilities listed in 40 CFR 52.21(b)(1)(i)(A) for which the potential emission of an NSR pollutant at or above "100 tons per year" would trigger PSD major source applicability (as opposed to 250 tons per year). These categorical facilities are as follows:

- Fossil fuel-fired steam electric plants of more than 250 million British thermal units (MMBTU) per hour heat input;
- Coal cleaning plants (with thermal dryers);
- Kraft pulp mills;
- Portland cement plants;
- Primary zinc smelters;
- Iron and steel mill plants;
- Primary aluminum ore reduction plants (with thermal dryers);
- Primary copper smelters;
- Municipal incinerators capable of charging more than fifty (50) tons of refuse per day;
- Hydrofluoric, sulfuric, and nitric acid plants;
- Petroleum refineries;
- Lime plants;
- Phosphate rock processing plants;
- Coke oven batteries;
- Sulfur recovery plants;
- Carbon black plants (furnace process);
- Primary lead smelters;
- Fuel conversion plants;
- Sintering plants;
- Secondary metal production plants;
- Chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation);
- Fossil fuel-fired boilers (or combinations thereof) totaling more than 250 MMBTU per hour heat input,
- Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;

- Taconite ore processing plants;
- Glass fiber processing plants; and
- Charcoal production plants.

As such, MDEQ believes the PSD major source applicability threshold of "250 tons per year" applies to the proposed TAPS facility pursuant to 40 CFR 52.21(b)(1)(i)(B).

Comment No. 9: A comment was received expressing concern that a nearby Amazon Data Services facility (Air Permit No. 1720-00099) was not accounted for in the cumulative source impacts modeling analysis associated with the proposed TAPS project: "*Failure to include emissions from the adjacent Amazon Data Services diesel generators in the cumulative NAAQS demonstration.*"

MDEQ Response: Please see MDEQ's response to Comment No. 3.

Comment No. 10: A comment was received expressing concern that the modeling analysis completed for the proposed TAPS project did not account for temperature- and weather-dependent emission factors: "*This opposition is based on…insufficient modeling of temperature- and weather-dependent emission factors. Critically, the PSD application may understate the plant's actual annual emissions because the lower efficiency of the air-cooled condenser during the hot weather does not appear to be accounted for.*"

MDEQ Response: MDEQ disagrees that the modeling analysis did not account for temperature- and weather-dependent emissions. Based on the provided information, Entergy evaluated combustion turbine emissions across a full range of expected ambient conditions (i.e., 10°F, 59°F and 95 – 97°F), with and without duct burner firing, and with and without evaporative cooling at varying loads (i.e., base, intermediate and minimum loads). As such, the combustion turbine's mass emission rate was highest in cold weather when denser inlet air increases mass flow and fuel input and lowest in hot weather. For that reason, the air quality analysis used the 10°F operating cases, which have the highest hourly emission rates and the least buoyant exhaust conditions.

Lastly, as was explicitly mentioned, reduced air-cooled condenser performance in hot weather would lower the proposed TAPS facility's net electrical output and raise its heat rate, but it would not increase the fuel fired in the combustion turbine or its mass emission rate. MDEQ must note the NAAQS and PSD increment analyses are based on mass emissions. Therefore, the turbine's emission rates are below the cold-weather rates used in the modeling even with full duct burner firing on a 97°F-day. As such, the analysis does not understate the facility's potential emissions or its ambient impacts.

Comment No. 11: A comment was received alleging that an environmental justice analysis is required for the proposed TAPS project. A portion of the overall comment is as follows: "*Federal Executive Order 12898 requires permitting bodies receiving federal funding to identify and address disproportionate health and environmental burdens placed on minority communities. This protection applies regardless of economic status. Race is the protected characteristic. The applicant has submitted no environmental justice analysis. The Board must not proceed without one.*"

MDEQ Response: On January 21, 2025, President Donald Trump issued presidential action "Ending Illegal Discrimination and Restoring Merit-Based Opportunity" in which Executive Order 12898

(Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) was revoked. As such, permitting bodies receiving federal funding shall not engage in determinations based upon "illegal preferences and discrimination".

Comment No. 12: A comment was received alleging that Entergy is using new technology: "*I will say that this is new technology that is being introduced. And I'm saying new because there has been no independent peer-review research that aligns with the comments that this is safe. This technology has primarily been installed internationally, such as in Asia and a few other places, and there are a few installations in the United States. I know that Entergy is planning to install this technology in the Greenville plant, if I'm not mistaken.*"

MDEQ Response: While not explicitly stated by the commenter, MDEQ has inferred the comment to allege that new (or "unproven") technology will be utilized at the proposed TAPS facility. While the commenter did not specify the technology this is considered "new", Entergy is planning to install a Mitsubishi Model M501JAC Combustion Turbine, which will be utilized in combined cycle power generation at the proposed TAPS facility. The M501JAC gas turbines debuted in North America at a 1.2-GW combined cycle plant in Elwood, Illinois, with the units becoming operational this year. While the M501JAC is a new model, the basic engineering design behind a gas turbine is not. These units utilize more modern combustion and cooling technologies but are designed to perform the same basic function that commercial turbines have served for many years. Furthermore, Mitsubishi has designed these units to meet all Federal NAAQS at different load values when operated in accordance with manufacturer instructions. In addition, Entergy will ensure that these units operate within Mitsubishi's parameters and within the emission limitations set forth within the updated draft PSD Permit to Construct by performing stack tests as well as utilizing a CEMS to verify emissions data.

Comment No. 13: Comments were received expressing concern that there is no ambient air monitoring station near the proposed TAPS facility. Some of the comments are as follows:

- "*There's no air quality monitor that I am aware of in this county. The numbers that were used to judge the background pollution come from a monitor that's in a different county, not this area.*"

- "*…put a real air monitor here in this community before even considering approving the permit…*"

MDEQ Response: MDEQ must clarify that ambient air monitoring networks are established under 40 CFR Part 58. In accordance with 40 CFR 58.10 and Appendix D to Part 58, MDEQ must operate a minimum number of air monitor stations for each criteria pollutant based mainly on two factors: (1) the population of each metropolitan statistical area; and (2) measured pollutant levels. This collective monitoring stations (also denoted as a "network") is designed to characterize area-wide air quality and population exposure. It is not designed to place a monitor at each permitted facility, and neither the Clean Air Act nor EPA's regulations require such action.

Comment No. 14: Comments were received expressing concern about the potential relocation of the proposed TAPS facility. Some of the comments are as follows:

- "*…you should do a more effective job suggesting locations that are not in the midst of the community.*"

- "*Ask Entergy to relocate.*"

- "*And I think the citizens of Jackson are willing to work with Entergy to find another location that would be better suited for all parties involved.*"

MDEQ Response: While MDEQ acknowledges the concerns pertaining to this matter, this agency does not have any regulatory authority over site selection for sources that opt to reside within the State of Mississippi (whether it be "commercial", "industrial", or "residential"). Such authority solely with the local jurisdictional government (i.e., city or county) under their governance of zoning and parcel purchase / leasing.

APPENDIX A

Comments Received from the Better Data Center Project (BDCP) and Environmental Advocates Mississippi (EAM)

May 8, 2026

Mr. Thomas Parker (submitted electronically to tparker@mdeq.ms.gov)
Mississippi Department of Environmental Quality, Permit Board
P.O. Box 2261, Jackson, MS 39225

Re: Prevention of Significant Deterioration Construction Permit, Air Ref. No. 1720-00100

Dear Mr. Thomas Parker and the MDEQ Permit Board:

The Better Data Center Project and Environmental Advocates Mississippi submit these comments in response to the public notice dated April 8, 2026 regarding the draft PSD construction permit for Entergy Mississippi LLC's Traceview Advanced Power Station (TAPS), a proposed 750 MW natural gas-fired 1x1 combined cycle plant at 1972 W County Line Road, Ridgeland, Mississippi.

We ask that:

1. **Permit No. 1720-00100 be denied under Mississippi Code. § 49-17-29(3)(c) given the significant potential for emissions to adversely impact nearby residents**. As we detail in these comments, the draft permit fails to properly regulate all potential harmful emissions from the facility and is missing key information necessary for the Board to make its determination.

2. Given the public's interest in this matter, no permit shall be granted without a public hearing pursuant to Mississippi Code. § 49-17-29(4)(a).

Air Emissions Health Impacts of TAPS

Natural gas plants generate several species of air pollution that are known to harm health, including criteria air pollutants like **nitrogen oxides (NOx), carbon monoxide (CO)** and **sulfur dioxide (SO_2)** and hazardous air pollutants including **formaldehyde, polycyclic aromatic hydrocarbons (PAH), benzene, toluene, xylenes** and others. Additionally, NOx is a precursor to **ozone** and **particulate matter (PM)** which are also criteria air pollutants with significant health impacts. These pollutants have well-established negative health impacts, including exacerbating or increasing the risk of respiratory and cardiovascular diseases, asthma, premature death, and more.

The PM2.5 emissions from this facility alone would represent a 10% increase in county-wide PM2.5 emissions from all other sources in Madison County (U.S. EPA National Emissions Inventory). These additional emissions come when the region is already near to or exceeding the NAAQS primary annual PM2.5 standard. According to the MDEQ *Air Quality Data Summary for Calendar Year 2025* (pg. 53), the Hinds CC monitor (in Hinds County) recorded a 2025 annual mean of 9.4 $\mu g/m^3$, above the NAAQS benchmark of 9.0 $\mu g/m^3$. This indicates that the communities surrounding the planned TAPS facility are already experiencing PM2.5 levels at or above the current annual standard.

Independent analysis by the EmPower Analytics Group (Attachment 1 in this comment) of the Traceview Advanced Power Station **specifically shows that permitted levels of air pollution will create about $18 million to $32 million in annual health damages**—including 1.1 to 2.1 premature deaths per year alongside increases in nonfatal heart attacks, respiratory emergency-room visits, new asthma cases, and hundreds of asthma-symptom days and lost school and work days. Over 30 years, these impacts total $538.1 million to $947.8 million in monetized health damages and 34.4 to 62.4 deaths.

In total, the permitted levels of pollution are expected to result in about 240 missed school days and 89 missed work days each year. This means parents missing paychecks, students falling behind in class, and families facing difficult trade-offs between health and financial stability. For our children, missed classroom time can affect learning rates and long-term educational outcomes. For seniors, increased exposure can worsen existing heart and lung conditions, leading to more frequent hospital visits and reduced quality of life (see Attachment 2: Additional Relevant Studies).

This study is not an anomaly. It adds to an existing body of research that shows how proximity to a natural gas power plant results in negative health impacts. It is critical to note that health impacts can occur even in cases when the power plants are meeting required emissions standards. Impacts can be larger for vulnerable populations including the elderly, children, and those with pre-existing conditions.

We urge you to deny this permit because once built, this plant will emit pollution into the Jackson area's air for decades, causing sustained, substantial, and preventable harm to the nearby communities.

Gaps and deficiencies in the draft permit and statement of basis

Our review of the draft permit, Statement of Basis, and associated application materials identifies multiple omissions and deficiencies that must be resolved in order for the Permit Board to determine whether a permit is appropriate, and to enable the public to fully understand the potential adverse impacts to their health and the environment. These deficiencies and missing information and plans include:

1. **Ammonia slip emissions, and their potential impact on PM2.5 concentrations, are not addressed**: the permit contains no ammonia emission limit, no stack monitoring, and no inclusion of ammonia in the air quality modeling, despite the facility's reliance on a large-scale SCR system with a 40,000-gallon aqueous ammonia storage tank. Ammonia can contribute to secondary PM2.5 formation, and could worsen the air quality impacts of TAPS. The predicted 24-hour PM2.5 increment (1.417 $\mu g/m^3$, see Table 12-3, Statement of Basis) already exceeds the NAAQS significant impact level increment consumption (1.2 $\mu g/m^3$).

2. **Inconsistencies in reported emissions and inadequate public disclosure:** The Statement of Basis notes annual NOx emissions of 308 tpy, whereas the draft permit only reports 222.84 tpy of NOx. In addition, PM2.5 increment consumption is not disclosed in the public notice, despite PM2.5 triggering PSD review at 166.59 tpy. The public notice lists the PM10 increment consumption at 0.59%, without mentioning that the 24-hour PM2.5 increment consumption exceeds the NAAQS significant impact level, consuming 14% of the 24-hour PM2.5 Class II increment.

3. **Cumulative source impacts** from the adjacent Amazon Data Services Ridgeland facility (Permit No. 1720-00099) and nearby Canton facility (Permit No. 1720-00098) are not addressed in the NAAQS demonstration. The potential NOx emissions from these >700 diesel generators units (498 tpy) greatly exceed those of TAPS, and could significantly impact the peak PM2.5 concentrations experienced by the community. These cumulative impacts **must be considered in the 1-hour NO_2 and 24-hour PM2.5 NAAQS demonstrations**.

We address each of these in detail below.

1. Ammonia slip is not modeled, quantified, or monitored

A. Ammonia is a PM2.5 Precursor

The TAPS facility will employ an ammonia-based Selective Catalytic Reduction (SCR) system to achieve the proposed BACT limit of 2.0 ppmvd NOx at 15% O_2. The SCR system requires continuous injection of aqueous ammonia from a 40,000-gallon pressurized storage tank.

Unreacted ammonia passes through the catalyst bed and exits the main stack as ammonia slip. In addition, Emission Point AA-006 covers ammonia fugitive emissions from piping components.

Despite the large-scale use of ammonia at this facility, the draft permit contains no ammonia slip limit for the main stack (AA-001), no continuous or periodic stack monitoring for ammonia, and only an Audio-Visual-Olfactory (AVO) inspection program for fugitive ammonia emissions (Condition 3.46). The air quality modeling does not include ammonia as a modeled pollutant.

Under EPA's 2008 NSR PM2.5 Implementation Rule (73 FR 28321, May 16, 2008) and the 2016 PM2.5 SIP Requirements Rule (81 FR 58009, August 24, 2016), ammonia is identified as a PM2.5 precursor. The Statement of Basis also acknowledges this, stating: "PM emissions can also result from the formation of sulfates and nitrates, which are formed when certain sulfur-oxide and nitrogen-oxide compounds react with ammonia."[1] Having acknowledged this formation pathway, the Statement of Basis then fails to quantify the ammonia that feeds it. Given the significant volume of ammonia used at this facility, we request that MDEQ require the applicant to quantify ammonia emissions and evaluate their contribution to ambient PM2.5 concentrations and deny any permit application that does not include this analysis.

B. BACT Environmental Impacts and Prevailing National Practice

The Statement of Basis states that “no evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.” However, selecting SCR as BACT introduces a new collateral emission—ammonia slip—that the permit must address. The BACT definition at 40 CFR 52.21(b)(12) requires that emission limitations be established "taking into account energy, environmental, and economic impacts," and ammonia slip is the principal environmental impact of SCR. The standard practice in other states' PSD permits is to include an enforceable ammonia slip limit as a condition of selecting SCR as BACT. The TAPS draft permit sets a limit for the pollutant SCR controls (NOx at 2.0 ppmvd) but imposes no limit on the pollutant SCR emits (ammonia). This is an incomplete BACT determination.

A review of EPA's RACT/BACT/LAER Clearinghouse (RBLC) reveals that PSD permits for combined cycle gas turbines with SCR routinely include enforceable ammonia slip limits. Common limits range from 2 to 10 ppmvd at 15% O_2, with 5 ppmvd on a 24-hour or 3-hour average being the most frequent specification. States imposing such limits include California (CARB guidance: 5 ppm for large gas turbines), Connecticut, Idaho, Massachusetts, New Mexico, New York, and Texas,[2] among others.

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[1] Ammonia slip from the SCR reacts with sulfuric acid (from SO_2 oxidation) and nitric acid (from NOx oxidation) in the atmosphere to form ammonium sulfate ($(NH_4)_2SO_4$) and ammonium nitrate (NH_4NO_3), both of which are secondary PM2.5. See Seinfeld, J.H. & Pandis, S.N., *Atmospheric Chemistry and Physics: From Air Pollution to Climate Change* (3rd ed., Wiley, 2016), Chapter 10.

[2] See e.g. permit 175063 for the 1320 MW turbine in Barstow, TX, which requires continuous NH_3 monitoring and requires “ammonia slip will be limited to 5.0 ppmvd corrected to 15 percent O_2, averaged over one hour, during all steady-state operating conditions”.

C. SCR Catalyst Degradation

SCR catalyst activity decreases over time due to thermal aging, chemical poisoning, and physical degradation. As the catalyst degrades, the operator must increase ammonia injection rates to maintain the 2.0 ppmvd NOx limit, which directly increases ammonia slip. Vendor-guaranteed catalyst life for gas-fired applications is typically 3 to 5 years. See EPA Air Pollution Control Cost Manual, Section 4, Chapter 2: SCR (2019).

Without an enforceable ammonia slip limit, there is no regulatory mechanism to ensure timely catalyst replacement. As catalyst activity declines, ammonia slip increases progressively, and the permit as drafted places no upper bound on those emissions.

D. Monitoring Deficiency

The permit requires a NOx continuous emission monitoring system (CEMS) (Condition 5.6), and the same measurement infrastructure can accommodate ammonia slip monitoring. Ammonia slip analyzers are commercially available at capital costs of $40,000–$70,000 per measurement point (EPA Air Pollution Control Cost Manual, 2019). For a facility with an estimated capital cost exceeding $1 billion, this is a negligible incremental cost.

Under 40 CFR 52.21(j) and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11), BACT conditions must be accompanied by monitoring sufficient to assure compliance. The absence of any ammonia limit means there is no ammonia monitoring, and the permit cannot verify that ammonia emissions remain at the levels assumed in the emission inventory.

E. Nuisance Standard and Residential Proximity

The draft permit contains Condition 1.13, which prohibits emissions “in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance” (referencing 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)). The only ammonia monitoring in the permit is the AVO (Audio-Visual-Olfactory) inspection program for fugitive emissions at Emission Point AA-006 (Condition 3.46). This is inadequate to ensure compliance with the nuisance standard at the nearest residences for two reasons. First, AVO inspections are designed to detect gross leaks from piping components, not to quantify continuous ammonia slip from a 200-foot main stack. Second, the human odor detection threshold for ammonia (approximately 5–50 ppm) is substantially higher than the concentration levels at which ammonia causes respiratory effects in sensitive individuals. ATSDR's Minimal Risk Level for acute inhalation exposure to ammonia is 1.7 ppm (ATSDR, Toxicological Profile for Ammonia, 2004). With occupied residences less than 0.25 miles from the facility, the permit should include an enforceable ammonia slip limit at the main stack sufficient to ensure that ground-level ammonia concentrations at the nearest residences remain below health-protective thresholds, rather than relying on periodic fence-line odor inspections that cannot detect sub-odor-threshold emissions.

F. Section 112(r) and Accidental Release

The 40,000-gallon aqueous ammonia storage tank may trigger Risk Management Plan (RMP) requirements under CAA Section 112(r)(7) if the stored quantity exceeds the applicable threshold (10,000 lbs for anhydrous ammonia or 20,000 lbs for aqueous ammonia at concentrations ≥20%). See 40 CFR 68.130. The proximity of residences at less than 0.25 miles from the facility makes the accidental release scenario particularly consequential. The Statement of Basis must confirm whether RMP requirements apply and describe the safeguards in place.

G. Permit Conditions

The permit must meet the following conditions:

- An enforceable ammonia slip limit for Emission Point AA-001 of no more than 5 ppmvd NH_3 at 15% O_2 on a 24-hour average basis, consistent with RBLC precedent.
- An initial compliance stack test for ammonia during the performance test required under Condition 5.1.
- Continuous ammonia monitoring to verify continued compliance as SCR catalyst ages.
- Quantification of total ammonia emissions (slip plus fugitive) in the facility emission inventory. This quantification should consider how ammonia slip varies with ambient temperature and with SCR catalyst age.
- Inclusion of ammonia emissions in the PM2.5 secondary formation analysis and the 24-hour and annual PM2.5 increment consumption modeling.

2. Inconsistencies in reported emissions and inadequate public disclosure of increment consumption

The Statement of Basis reports annual NOx emissions of 308 tpy, whereas the draft permit only reports 222.84 tpy of NOx. The permit should not be approved with inconsistent emissions totals across different documents.

In addition, the public notice fails to clearly disclose all of the relevant information from the Statement of Basis and the PSD application. Indeed, the selective disclosure of NAAQS increment consumption for certain species and not others is misleading and attempts to minimize the potential emissions and environmental effects from this site. For example, the public notice reports PSD Class II increment consumption for PM10 (0.59% annual and 4.56% 24-hour) and NO_2 (0.96% annual), but makes no mention of PM2.5, which has tighter increments and over three times higher increment consumption than PM10. The Statement of Basis does report PM2.5 increment analysis results (Table 12-8 shows a 24-hour PM2.5 increment impact of 1.270 $\mu g/m^3$, which exceeds the NAAQS significant impact level and consumes 14% of the 9 $\mu g/m^3$ limit), but this information should be disclosed clearly in the public notice to allow meaningful public comment.

We request that the PM2.5 increment consumption for both annual and 24-hour averaging periods be disclosed in the public notice and addressed in any public hearing. We also request, as discussed above in Section 1, that modeling of 24-hour and annual PM2.5 increment consumption consider secondary PM2.5 formation due to ammonia emissions. For complete transparency, both the 1-hour and annual NO_2 increment consumption should also be disclosed.

3. Cumulative Source Impacts

The NAAQS demonstration under 40 CFR 52.21(k)(1) requires the applicant to demonstrate that allowable emission increases, “in conjunction with all other applicable emissions increases or reductions”, would not cause or contribute to a NAAQS violation. Under 40 CFR Part 51, Appendix W, Section 8.2, all nearby sources expected to cause a significant concentration gradient in the vicinity of the proposed source should be explicitly modeled in the cumulative impact analysis. While the Statement of Basis acknowledges this requirement ("The applicant is required, at a minimum, to explicitly model all nearby sources as part of the NAAQS analysis”), it does not specify which nearby sources are included in this analysis.

The Amazon Data Services facility under construction at 1626 County Line Road holds Permit No. 1720-00099 authorizing 391 diesel-fired emergency generators with a total capacity of 1060 MW. This facility is immediately adjacent to the TAPS site. Additionally, another Amazon Data Services site is under construction just 15 miles north at 1978 Highway 22 Canton, MS 39046 (Permit No. 1720-00098). This facility consists of 331 diesel-fired generators with a total capacity of 900 MW.

We request that MDEQ publicly confirm whether the permitted emissions from the nearly 2 GW of diesel generators at these two sites were explicitly included as nearby sources in the full NAAQS impact modeling. If they were not, the cumulative NAAQS demonstration at near-field residential receptors is inadequate and incomplete. The potential NOx emissions from these generators (249 tpy at each site, or 498 tpy total) greatly exceed those of TAPS, and could significantly impact the peak NO_2 and PM2.5 concentrations experienced by the surrounding community.

Because these Amazon Data Services facilities are still under construction and not fully operational, it is not appropriate to account for these emissions using ambient air monitoring, and instead should be directly included in the full impact modeling analysis.

The cumulative analysis applies to every NAAQS pollutant that triggered PSD review, including NO_2, PM2.5, and ozone. It is particularly consequential for the 1-hour NO_2 NAAQS, where the Statement of Basis reports a 1-hour NO_2 impact of 6.341 $\mu g/m^3$ against a Significant Impact Level of 7.5 $\mu g/m^3$ (85% of the screening threshold) and concludes no further analysis is required. Diesel engines produce high short-term NOx emission rates during operation. If TAPS and the AWS generators operate during the same hour—a plausible scenario during generator testing or grid stress events—the combined 1-hour NO_2 concentration at the nearest residential receptors could exceed the SIL and require a full cumulative impact analysis. This narrow

margin also means that the underlying emission assumptions—particularly whether cold startup emission rates and worst-case ambient temperature conditions were used—warrant disclosure and verification.

4. Procedural Requests

A. Public Hearing

We request that the Permit Board hold a public hearing on this draft permit pursuant to Mississippi Code Ann. § 49-17-29(4)(a) so that affected community members can meaningfully participate in this decision.

B. Disclosure of Application Materials

The Statement of Basis repeatedly references Table A-2 in Appendix A of the PSD Construction Permit Application, which contains the detailed performance scenarios and associated emissions at each operating condition. This table is essential to evaluating the emission inventory and air quality analysis. We request that the full PSD application, this table, and any other application materials not currently included in the publicly available record, be made available online for public review. Requiring an in-person visit or formal records request to see the PSD application, within a short 30-day comment window, undermines meaningful public participation required by CAA § 165(a)(2), particularly when the draft permit and statement of basis are already online.

C. EPA Region 4 Review

We request that a copy of this comment be forwarded to EPA Region 4, Air Permits Section, for review in connection with EPA's oversight of PSD permits issued under delegated authority pursuant to 40 CFR 52.21(u). The cumulative impact and public health concerns identified herein are relevant to EPA's statutory obligations under Clean Air Act Sections 110 and 165 (42 U.S.C. §§ 7410, 7475).

Conclusion

Natural gas power plants impose real health, environmental, and economic burdens on surrounding communities, and these harms occur even when facilities comply with regulations. In the case of Entergy Mississippi’s proposal at 1972 W County Line Road, those impacts would hit already vulnerable communities the hardest. Granting this permit would knowingly allow new pollution that studies show will increase illness, increase healthcare costs, and shorten lives. An independent analysis shows that the health damages from this plant alone could approach $1 Billion over 30 years.

In addition, the draft permit contains major flaws that prevent the full environmental effects of this facility from being understood: it lacks any ammonia emission controls, monitoring, and

analysis; it is not sufficiently transparent or complete in its air quality demonstrations; and it does not sufficiently consider cumulative impacts from nearby sources, including over 2 GW of diesel generators from nearby data centers that are under development.

We request that the Permit Board deny the draft permit and that a public hearing be held to allow full consideration of these matters.

Respectfully submitted,

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May 8, 2026

Attachment 1: Health and Economic Impacts of the Traceview Advanced Power Station.

Independent Environmental Health & Infrastructure Analysis provided by **EmPower Analytics Group LLC**

May 7th, 2026
Prepared for Better Data Center Project

Prepared by:
EmPower Analytics Group LLC
Independent Environmental Health & Infrastructure Analysis

Health and Economic Impacts of the Traceview Advanced Power Station

Screening Analysis of Maximum Permitted Emissions Using EPA's COBRA Model

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Executive Summary

- This report provides a screening-level estimate of the population health impacts associated with permitted emissions from the Traceview Advanced Power Station, based on its maximum allowable annual emissions: 166.59 tons per year of $PM_{2.5}$, 222.84 tons per year of NO_x, 30.37 tons per year of SO_2, and 403.88 tons per year of VOCs.
- Under this full-permitted-emissions scenario, EPA's COBRA model estimates $17.9 million to $31.6 million in annual monetized health damages — about $18 million to $32 million when rounded — and 1.1 to 2.1 premature deaths per year associated with the facility's permitted emissions.
- The estimated health impacts include premature death, nonfatal heart attacks, respiratory emergency-room visits and hospital admissions, new asthma cases, asthma symptoms, and lost school and work days.
- The estimated health damages are driven primarily by fine particulate matter, or $PM_{2.5}$. $PM_{2.5}$-related impacts account for approximately $11.3 million to $24.9 million annually, while ozone-related impacts contribute approximately $6.7 million annually.
- If these annual impacts occurred every year, total damages would reach approximately $90 million to $160 million over 5 years and $540 million to $950 million over 30 years. Corresponding mortality totals would be about 6 to 10 deaths over 5 years and about 34 to 62 deaths over 30 years. These are illustrative, undiscounted totals — not forecasts — and assume constant emissions, population, background conditions, and valuation methods.
- Community context should include both Madison and Hinds Counties. Although the facility is permitted in Madison County, nearby Hinds County communities lie across W County Line Road and differ substantially from Madison County in demographics and socioeconomic conditions, including higher Black population share, lower median household income, lower median home value, and higher poverty rate.
- This analysis is limited to the Traceview gas plant and does not include emissions from the adjacent AWS data center diesel generator fleet. As a result, the findings represent only part of the total air-quality health burden communities could experience from these adjacent projects. The results are therefore likely conservative under a maximum-permitted-emissions scenario, as the analysis excludes the AWS generator fleet, does not incorporate quantified ammonia emissions, and does not fully resolve VOC contributions to secondary particulate matter formation. The magnitude of these omitted impacts is not quantified in this analysis.

Introduction

The Traceview Advanced Power Station is a proposed natural-gas combined-cycle power plant located at 1972 W County Line Road in Ridgeland, Mississippi, within Madison County and near Hinds County communities across W County Line Road. The draft Mississippi Department of Environmental Quality (MDEQ) PSD air construction permit describes a Mitsubishi M501JAC combustion turbine with supplementary-fired duct burners, a heat recovery steam generator, and a steam turbine generator.[3] The facility also includes ancillary sources such as a diesel emergency generator, diesel firewater pump, natural-gas dewpoint heater, fugitive emission points, lube-oil vents, and storage tanks.[4] The facility is located a few miles from an AWS data center facility in the Jackson metropolitan area. Although this analysis does not assess operational or contractual relationships between the facilities, their proximity is relevant context for considering cumulative air-quality concerns in the project area.

This analysis uses EPA's COBRA model to estimate how the facility's maximum permitted emissions translate into health outcomes and monetized damages.[5] The purpose is to estimate the order of magnitude of the annual public-health burden associated with the permitted emissions scenario. This analysis is not a prediction of typical operations, short-term emissions peaks, or neighborhood-scale concentration patterns.

The scope is intentionally limited. It covers the Traceview gas plant only, not the adjacent AWS diesel generator fleet. It reports total COBRA results rather than tract-level exposure estimates or environmental justice mapping. It addresses air-quality-related health impacts only. Water use, noise, traffic, construction emissions, climate impacts, and land-use effects are outside the quantitative scope of this analysis.

Scientific Foundation and Independence

This analysis follows the conventions of an independent technical screening assessment. It relies on public permit materials, the supplied COBRA results workbook, EPA model documentation, and peer-reviewed epidemiological literature. It is not a regulatory compliance analysis and does not replace permit modeling, source testing, or receptor-specific dispersion analysis.

The scientific basis is well established: combustion sources emit primary particles and precursor gases that contribute to $PM_{2.5}$ and ozone formation; these pollutants are associated with premature mortality and cardiopulmonary and respiratory illness; and EPA's COBRA model is

[3] Mississippi Department of Environmental Quality, Draft Prevention of Significant Deterioration (PSD) Air Construction Permit No. 1720-00100: Entergy Mississippi LLC, Traceview Advanced Power Station.
[4] Mississippi Department of Environmental Quality, Draft Prevention of Significant Deterioration (PSD) Air Construction Permit No. 1720-00100: Entergy Mississippi LLC, Traceview Advanced Power Station.
[5] US Environmental Protection Agency, "CO-Benefits Risk Assessment (COBRA) Web Edition."

designed to translate emissions into screening-level estimates of population health impacts and monetized damages for policy analysis.[6]

This analysis was prepared by EmPower Analytics Group for the Better Data Center Project. EmPower is an independent analytics firm and does not receive funding from entities with a financial interest in the project outcome. This work was conducted independently and is not performed on behalf of any academic institution, regulatory agency, or project proponent. All methods are based on publicly available data, EPA tools, and peer-reviewed scientific literature.

What $PM_{2.5}$ and Ozone-Related Pollution Mean for Health

Fine particulate matter, or $PM_{2.5}$, refers to particles generally 2.5 micrometers in diameter or smaller. EPA explains that particles this small can penetrate deep into the lungs and, in some cases, enter the bloodstream.[7] $PM_{2.5}$ includes both particles emitted directly from sources and particles formed in the atmosphere from precursor gases such as sulfur dioxide, nitrogen oxides, ammonia, and volatile organic compounds.[8]

A large body of scientific evidence links long-term $PM_{2.5}$ exposure with increased risks of premature mortality, cardiovascular disease, respiratory illness, and asthma exacerbation.[9] Importantly, there is no known safe level of exposure to $PM_{2.5}$; health risks increase continuously as concentrations rise, even at levels below current regulatory standards.[10] Large U.S. studies, including analyses of Medicare populations, show that even small long-term increases in $PM_{2.5}$ are associated with measurable increases in mortality and hospitalization rates.[11] In practical terms, this means that modest incremental increases in pollution can still produce meaningful population-level health impacts when large numbers of people are exposed.

Ground-level ozone forms through atmospheric reactions involving nitrogen oxides (NO_x) and Volatile Organic Compounds (VOCs) in the presence of sunlight. It is a respiratory irritant associated with breathing difficulty, airway inflammation, asthma exacerbation, school

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[6] Wu et al., “Evaluating the Impact of Long-Term Exposure to Fine Particulate Matter on Mortality among the Elderly”; Di et al., “Air Pollution and Mortality in the Medicare Population”; US Environmental Protection Agency, “CO-Benefits Risk Assessment (COBRA) Web Edition”; US Environmental Protection Agency, *Integrated Science Assessment (ISA) for Particulate Matter.*

[7] US Environmental Protection Agency, “Particulate Matter (PM) Basics.”

[8] US Environmental Protection Agency, *Integrated Science Assessment (ISA) for Particulate Matter.*; US Environmental Protection Agency, “Particulate Matter (PM) Basics.”

[9] Cork et al., “Methods for Estimating the Exposure-Response Curve to Inform the New Safety Standards for Fine Particulate Matter”; Di et al., “Air Pollution and Mortality in the Medicare Population”; Wu et al., “Evaluating the Impact of Long-Term Exposure to Fine Particulate Matter on Mortality among the Elderly”; US Environmental Protection Agency, Integrated Science Assessment (ISA) for Particulate Matter.

[10] World Health Organization, *WHO Global Air Quality Guidelines*.

[11] Cork et al., “Methods for Estimating the Exposure-Response Curve to Inform the New Safety Standards for Fine Particulate Matter”; Di et al., “Air Pollution and Mortality in the Medicare Population”; Wu et al., “Evaluating the Impact of Long-Term Exposure to Fine Particulate Matter on Mortality among the Elderly”; US Environmental Protection Agency, *Integrated Science Assessment (ISA) for Particulate Matter.*

absences, emergency-room visits, and hospital admissions.[12] For a gas-fired combustion source, both $PM_{2.5}$-related and ozone-related pathways are therefore relevant to health-impact screening.[13]

Nitrogen oxides also have direct health relevance, particularly as nitrogen dioxide (NO_2), which has been associated with respiratory effects and asthma exacerbation. However, EPA's COBRA model does not separately quantify direct NO_2 health impacts; instead, it captures the majority of quantified health effects from NO_x emissions through their contribution to secondary $PM_{2.5}$ and ozone formation. As a result, direct NO_2-related health effects are not separately reported in this screening analysis.[14]

Emissions Inputs and Scope of Analysis

The quantified source in this analysis is the Traceview Advanced Power Station under draft MDEQ PSD Air Construction Permit No. 1720-00100. The supplied COBRA run uses facility-wide annual emissions representing the Traceview gas plant and its associated permitted ancillary sources. It does not include the adjacent AWS generator fleet.

The draft permit would authorize facility-wide annual emission limits of 166.59 tons per year (tpy) of $PM_{2.5}$, 222.84 tpy of NO_x, 30.37 tpy of SO_2, and 403.88 tpy of VOCs. Facility-wide totals include the combustion turbine, emergency generator, firewater pump, dewpoint heater, and ancillary sources.

These inputs represent a full-permitted-emissions scenario. The policy question addressed here is: what level of annual health burden is consistent with the emissions the permit would authorize? Actual impacts would be expected to scale with actual emissions. Carbon monoxide is addressed in the permit but is not included in the COBRA pollutant input set used for this analysis. COBRA focuses on regional population-level health impacts driven primarily by $PM_{2.5}$, ozone, and their precursor emissions. Carbon monoxide has recognized health effects, particularly from short-term, higher-concentration exposures, but those impacts are typically evaluated through local dispersion modeling and comparison to ambient standards rather than through COBRA's regional screening framework. Ammonia is identified in the permit as a fugitive emission point, but no quantified annual ammonia emissions value was available for this COBRA run. The implications of this omission are discussed later in this report.

Analytical Approach and Methodology

COBRA is an EPA-developed screening model used to estimate population-level health effects and monetized damages associated with changes in air pollutant emissions.[15] Users specify

[12] US Environmental Protection Agency, "Ground-Level Ozone Basics"; US Environmental Protection Agency, "Health Effects of Ozone Pollution."
[13] US Environmental Protection Agency, "CO-Benefits Risk Assessment (COBRA) Web Edition."
[14] US Environmental Protection Agency, "CO-Benefits Risk Assessment (COBRA) Web Edition."
[15] US Environmental Protection Agency, "CO-Benefits Risk Assessment (COBRA) Web Edition."

emissions changes, and COBRA applies reduced-form air quality modeling and established health-impact functions to estimate resulting changes in $PM_{2.5}$, ozone, mortality, morbidity, and economic damages across affected populations. The model is widely used in policy, screening, and research contexts to provide order-of-magnitude estimates of health impacts from emissions scenarios.

For this analysis, the Traceview facility is represented in COBRA as a natural-gas electricity-generating unit located in Madison County, Mississippi, emitting $PM_{2.5}$, NO_x, SO_2, and VOCs at the annual levels listed above. COBRA uses county-level emissions inputs and precomputed relationships based on prior atmospheric modeling to estimate how emissions disperse beyond the source location and contribute to changes in $PM_{2.5}$ and ozone across nearby and downwind counties. These relationships reflect typical meteorology, pollutant transport, and chemical transformation and are used to estimate resulting health impacts across affected populations.

Results reported here are drawn directly from the supplied COBRA workbook. Because COBRA is commonly structured to estimate “benefits” from emissions reductions, the model reports increased emissions as negative values. For clarity, this analysis converts those outputs into positive counts of additional adverse impacts and positive monetized damages. The reported low and high values for mortality and total damages reflect differences in how the strength of the relationship between air pollution and health outcomes is estimated across the scientific literature. COBRA uses established concentration–response relationships from epidemiological studies, and for mortality it includes both lower and upper estimates based on different credible functions used in the literature.[16] These ranges do not reflect different emissions scenarios. The results represent estimated changes in the number of cases across the affected population in a given year, rather than exact counts of individual events.

Results: EPA COBRA Health-Impact Results

Under the supplied full-permitted-emissions scenario, COBRA estimates that the Traceview facility would be associated with $17.9 million to $31.6 million in annual monetized health damages and 1.1 to 2.1 mortality cases per year. These are regional, population-level results and should not be interpreted as impacts occurring only within Madison County. COBRA uses county-level emissions inputs together with precomputed dispersion relationships to estimate how emissions spread beyond the source location into nearby and downwind areas.[17] Health impacts are then calculated based on the population in each affected county. In this context, “region” refers to the broader multi-county area influenced by emissions from the facility, not a single jurisdiction. A complete set of estimated health endpoints is provided in Appendix A.

[16] Wu et al., “Evaluating the Impact of Long-Term Exposure to Fine Particulate Matter on Mortality among the Elderly”; Pope et al., “Mortality Risk and Fine Particulate Air Pollution in a Large, Representative Cohort of U.S. Adults.”
[17] US Environmental Protection Agency, “CO-Benefits Risk Assessment (COBRA) Web Edition.”

Mortality is the dominant driver of monetized damages. COBRA reports $PM_{2.5}$-related all-cause mortality of 0.74 to 1.7 cases per year, ozone short-term mortality of 0.017 cases per year, and ozone long-term mortality of 0.39 cases per year (Appendix A). Together, these mortality outcomes account for $16.7 million to $30.4 million annually. COBRA monetizes premature mortality using EPA's value of a statistical life (VSL), which is specified as $7.4 million in 2006 dollars and updated to current dollars within the model. In the supplied results, this corresponds to an implied value of approximately $14–15 million per statistical death in 2023 dollars.

Nonfatal outcomes are also policy-relevant and contribute to the overall health burden. The model estimates annual increases of approximately 0.54 nonfatal heart attacks, 1.6 respiratory emergency-room visits, and 4.4 new asthma cases, along with hundreds of asthma-symptom days and lost school and work days. These results show that the impacts are not limited to mortality; they also include recurring illness, medical utilization, and reduced daily functioning across the affected population.

To provide context on potential long-term implications, the annual results can be aggregated over time as an illustrative calculation. This calculation assumes constant annual impacts and no discounting or changes in emissions, population, background conditions, or valuation methods. Under these assumptions, total health damages would amount to approximately $90 million to $160 million over 5 years, corresponding to about 6 to 10 premature deaths, and approximately $540 million to $950 million over 30 years, corresponding to about 34 to 62 premature deaths. These figures are presented for scale and should not be interpreted as forecasts.

Community Context: Madison and Hinds Counties

The Traceview Advanced Power Station is permitted in Ridgeland, Madison County, Mississippi but nearby communities across W County Line Road in Hinds County are also relevant to the community context because of their proximity to the site. For that reason, community context should not be limited to Madison County alone.

Hinds and Madison Counties differ substantially in demographic and socioeconomic characteristics. According to the U.S. Census Bureau, Hinds County's 2024 population estimate was 211,975, compared with 114,247 in Madison County.[18] Hinds County has a Black population share of 73.4%, compared with 38.3% in Madison County. Hinds County also has lower median household income ($49,402 vs. $83,441), lower median owner-occupied home value ($159,900 vs. $311,100), and a higher poverty rate (22.2% vs. 9.9%).[19] These county-level differences are not exposure estimates, but they provide important context because they reflect communities with different underlying socioeconomic and health conditions.

This context matters for public-health interpretation. EPA guidance and peer-reviewed research show that pollution impacts depend not only on emissions and proximity, but also on existing

[18] US Census Bureau, "U.S. Census Bureau QuickFacts."
[19] US Census Bureau, "U.S. Census Bureau QuickFacts."

conditions such as baseline health, cumulative exposures, and socioeconomic factors.[20] Lower-income and majority-Black communities are more likely to experience higher pollution exposure and may be more vulnerable to health effects from $PM_{2.5}$ and ozone, including asthma, cardiovascular disease, and premature mortality.[21]

Nearby monitoring data provide additional context. The Mississippi Department of Environmental Quality (MDEQ) reports that the annual $PM_{2.5}$ standard is 9.0 $\mu g/m^3$ and that the Hinds County Hinds CC monitor recorded a 2025 annual value of 9.3 $\mu g/m^3$, above that benchmark.[22] Madison County does not appear to have a comparable $PM_{2.5}$ monitor in the state network. These data are not site-specific to Traceview and do not represent a new compliance determination, but they indicate that nearby communities are already experiencing PM2.5 levels at or above the current annual standard.

Taken together, this context suggests that both Madison and Hinds Counties — particularly nearby Hinds County communities — are relevant for interpreting potential health impacts and public concerns associated with the project.

Interpreting These Results

This analysis uses EPA's COBRA model, a screening-level tool widely used in policy contexts to estimate the order of magnitude of population health impacts and economic damages from air pollution. The results are appropriate for public-comment and policy evaluation, but they are not precise local predictions and do not determine compliance with the Clean Air Act, Prevention of Significant Deterioration (PSD) requirements, or any permit condition.

The results reflect a full-permitted-emissions scenario, meaning they estimate the level of health impact consistent with what the permit would allow if emissions approach their maximum authorized annual levels. They should not be interpreted as a prediction of typical operations. Actual impacts would be expected to scale with actual emissions.

COBRA estimates regional, population-level impacts. It does not resolve short-term peaks, property-line concentrations, or neighborhood-level hotspots. It also does not estimate cumulative impacts from other sources, indoor exposures, or non-air effects such as water use, noise, traffic, or land use.

Monetized damages place different health outcomes — such as mortality, illness, and lost activity — into a common dollar-based framework for policy comparison. These values are not a complete measure of total harm. Similarly, fractional results, such as 1.1 deaths per year, represent expected changes across a population, not individual outcomes.

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[20] US Environmental Protection Agency, *Integrated Science Assessment (ISA) for Particulate Matter.*; US Environmental Protection Agency, *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis - Second Edition*.
[21] Josey et al., "Air Pollution and Mortality at the Intersection of Race and Social Class."
[22] Mississippi Department of Environmental Quality, *Air Quality Data Summary for Calendar Year 2025*.

This screening likely understates the total project-area health burden under this permitting scenario with respect to omitted sources and pollutants, although the magnitude of those omitted impacts is not quantified here. The analysis includes only the Traceview gas plant and excludes the adjacent AWS diesel generator fleet, meaning results reflect partial, not cumulative, impacts. In addition, ammonia emissions identified in the permit were not quantified and therefore not included, even though ammonia contributes to secondary $PM_{2.5}$ formation. Finally, COBRA captures VOC impacts primarily through ozone formation and does not fully resolve their contribution to secondary particulate matter. Together, these factors suggest that the $PM_{2.5}$-related impacts reported here are likely conservative relative to a more complete cumulative analysis.

Conclusion

This analysis indicates that operation of the proposed Traceview Advanced Power Station at maximum permitted emissions could impose a meaningful and recurring public-health burden. The reported estimate is $17.9 million to $31.6 million in annual monetized health damages and 1.1 to 2.1 premature deaths per year, along with additional impacts across respiratory, cardiovascular, asthma-related, and lost-activity outcomes.

These results are best understood as screening-level and conservative under a maximum permitted emission scenario, reflecting the scope of the analysis, which is limited to the Traceview gas plant and does not include adjacent sources or all pollutant pathways.

Even with these constraints, the results are directly relevant to permit review and public comment. They answer a key policy question: when the facility's permitted emissions are translated into health terms, the resulting burden is non-negligible, recurring, and regionally distributed. Accordingly, these findings support further evaluation of cumulative impacts and more detailed, spatially resolved analysis if a complete assessment of project-related health effects is required.

Appendix A. EPA COBRA Health Impact Results for the Traceview Advanced Power Station

Estimates reflect the U.S. EPA's CO-Benefits Risk Assessment (COBRA) model applied to the Traceview Advanced Power Station in Madison County, Mississippi, assuming annual emissions consistent with the facility's maximum permitted levels under MDEQ PSD Air Construction Permit No. 1720-00100. The modeled emissions scenario includes 166.59 tons per year of primary $PM_{2.5}$, 30.37 tons per year of SO_2, 222.84 tons per year of NO_x, and 403.88 tons per year of VOCs, representing facility-wide allowable emissions from the Traceview gas plant and its associated permitted sources.

Results represent estimated health impacts across the contiguous United States, as calculated by COBRA's reduced-form source–receptor framework.[23] While impacts are distributed regionally, a large share of the health burden is expected to occur in Mississippi and surrounding states. All results are reported on an annual basis and reflect EPA's standard concentration–response functions and economic valuation methods as implemented in COBRA.

Health Endpoint	Pollutant	Change in Incidence (annual cases)	Monetary Value (annual dollars)
Mortality (All Cause)	$PM_{2.5}$ | O_3	1.1 to 2.1	$17M to $30M
Nonfatal Heart Attacks	$PM_{2.5}$	0.54	$45,000
Infant Mortality	$PM_{2.5}$	0.0076	$120,000
Hospital Admissions, All Respiratory	$PM_{2.5}$ | O_3	0.15	$3,700
Emergency Room Visits, Respiratory	$PM_{2.5}$ | O_3	1.6	$2,700
Asthma Onset	$PM_{2.5}$ | O_3	4.4	$340,000
Asthma Symptoms	$PM_{2.5}$ | O_3	730	$150,000
Emergency Room Visits, Asthma	O_3	0.0054	$5
Lung Cancer Incidence	$PM_{2.5}$	0.048	$2,100

[23] US Environmental Protection Agency, "CO-Benefits Risk Assessment (COBRA) Web Edition."

Hospital Admissions, Cardio-/Cerebrovascular Disease	$PM_{2.5}$	0.1	$3,000
Hospital Admissions, Alzheimer's Disease	$PM_{2.5}$	1	$23,000
Hospital Admissions, Parkinson's Disease	$PM_{2.5}$	0.04	$960
Stroke Incidence	$PM_{2.5}$	0.041	$2,600
Hay Fever / Rhinitis	$PM_{2.5}$ | O_3	28	$31,000
Cardiac Arrest, Out of Hospital	$PM_{2.5}$	0.01	$620
Emergency Room Visits, All Cardiac	$PM_{2.5}$	0.23	$500
Minor Restricted Activity Days	$PM_{2.5}$	530	$66,000
School Loss Days	O_3	240	$410,000
Work Loss Days	$PM_{2.5}$	89	$28,000
Total $PM_{2.5}$ Health Effects	**—**	**—**	**$11M to $25M**
Total O_3 Health Effects	**—**	**—**	**$6.7M**
Total Combined Health Effects	**—**	**—**	**$18M to $32M**

Notes:

- *For clarity, this table presents COBRA-estimated impacts as positive "additional" cases and positive "monetized damages." The EPA COBRA tool reports these same changes using a negative sign convention to indicate increased adverse outcomes (i.e., negative "health benefits").*
- *For mortality outcomes, COBRA reports a range of estimates reflecting alternative peer-reviewed epidemiological concentration–response functions ("Low" and "High").*
- *All monetary values are expressed in 2023 dollars and rounded, consistent with standard COBRA output conventions.*
- *Health impacts reflect contributions from both $PM_{2.5}$ exposure and ozone (O_3) formation, with ozone-related impacts driven primarily by NO_x and VOC emissions.*

- *For clarity and consistency with COBRA outputs, changes in incidence are rounded to one decimal place (or whole numbers where appropriate), and monetary values are rounded to the nearest thousand or million dollars.*

Appendix B: References

Cork, Michael, Daniel Mork, and Francesca Dominici. “Methods for Estimating the Exposure-Response Curve to Inform the New Safety Standards for Fine Particulate Matter.” *Journal of the Royal Statistical Society Series A: Statistics in Society*, January 16, 2025, qnaf004. https://doi.org/10.1093/jrsssa/qnaf004.

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Wu, X., D. Braun, J. Schwartz, M. A. Kioumourtzoglou, and F. Dominici. “Evaluating the Impact of Long-Term Exposure to Fine Particulate Matter on Mortality among the Elderly.” *Science Advances* 6, no. 29 (2020): eaba5692. https://doi.org/10.1126/sciadv.aba5692.

Attachment 2: Additional Relevant Studies

1. A 2012 study by Dr. Agostino Di Ciaula, published in the European Journal of Internal Medicine (Vol. 23, Issue 2, pp. e53–e58), analyzed the correlation between NOx and PM10 emissions and emergency visits within 3 km (~1.86 miles) of a **750 MW combined cycle gas turbine** power plant. The study found that even though pollutant levels were below **European** permitted limits (typically more stringent than in the United States), **increased air pollution was correlated with increased emergency visits at both 1km and 3km from the plant for people above 70 years**. They verified that concentrations of PM10 and NO2 were higher after the plant started operating compared to before it started operating, and also found that the highest concentration of emissions was recorded within 1km (~0.62 miles) of the plant. Finally, they note that "***no apparent threshold exists below which the link between air pollution from both particulate matter (PM) and nitrogen dioxide (NO2) and adverse health effects no longer applies****, and elderly has been considered a risk group particularly susceptible to pollutant-induced injuries.*"
2. A 2016 study by Fouladi Fard et al., published in *Environmental Science and Pollution Research International* (Vol. 23, Issue 20, pp. 20922–20936), analyzed the health impacts from PM10, NOx, CO, and SO_2 emissions from a 715 MW combined cycle gas turbine power plant and **calculated a resulting annual health damage cost of approximately 4.76 million USD**. **This study also found that over 95% of the overall health damage costs were attributable to NOx and its derived pollutants,** and that for this particular plant and meteorological conditions, the peak concentration of pollutants occurred approximately 5 miles away from the plant.
3. A July 2025 expert report by Dr. Chris C. Lim (*Comprehensive Health Impact Assessment and Economic Valuation: PM2.5 Emissions from the Proposed Chesterfield Energy Reliability Center*, submitted as testimony to Case No. PUR-2025-00037), estimated the health impacts from fine particulate matter (PM2.5) of the proposed Chesterfield Energy Reliability Center (CERC) in Virginia, which will have four 250 MW simple cycle natural gas turbines for a total capacity of 1,000 MW. **Dr. Lim found that the impacts on the approximately 1.3 million residents within 100km of the plant would experience substantial health consequences, "*including 6.71 premature deaths (with estimates ranging from 1.83 to 16.18 depending on the epidemiological study used) and 14,641 cases of illness each year*"**. Illnesses cited were "*14.05 myocardial infarctions, 38.59 new childhood asthma cases, 5.16 new Alzheimer's disease cases, 3,600 lost workdays, and 10,948 minor restricted activity days*." These health impacts totalled to "*$88.5 million annually, with mortality contributing $79.9 million (90% of total costs) and morbidity accounting for $8.6 million.*" They also noted that "**CERC's projected PM2.5 emissions would therefore impose a substantial public health burden despite meeting current emission standards.**" This study finds that the highest annual concentrations of PM2.5 were located approximately 7 km (~4.35 miles) away from the facility.
4. An analysis by Rocky Mountain Institute (RMI) found that avoiding building the natural gas plants that were proposed in the US at the end of 2021 could prevent $23–$74 billion in *health impacts* over their assumed 20-year lifetimes from avoided air emissions produced by the gas power plant. They note that "*Health impacts are concentrated near*

proposed plant sites but felt nationwide, with more acute impacts in population-dense areas and areas with unfavorable wind patterns. Our analysis found that about 60 percent of the health impacts would fall in low-income communities and communities of color, especially in the population-dense Northeast."

5. A recent report by PSE Healthy Energy analyzed the impacts of annual PM2.5, NOx, VOC, and SO2 projected emissions from a 1100 MW Single Combustion Turbine (Oak Creek) in Wisconsin. They found that the proposed Oak Creek gas plant would generate a total of **$92.8 million to $144.8 million in health impact costs annually.**

APPENDIX B

Comments Received from Various Individuals Expressing Concerns

Outlook

MDEQ Website Message - "Traceview Advanced Power Station"

From MDEQ <communications@mdeq.ms.gov>
Date Thu 4/30/2026 9:37 PM
To Thomas Parker <tparker@mdeq.ms.gov>; MDEQ Web <mdeqweb@mdeq.ms.gov>

From: Barbara McGee [redacted]
Subject: Traceview Advanced Power Station

Message Body:
I am very much opposed to the construction of the plant. This plant is located near several highly residential subdivisions. The primary risk is air pollution which can cause respiratory issues, cardiovascular diseases, cancer and other long-term health problems due to emissions stated in the permit request. This will also threaten our water supply. The reported constant noises will be a nuisance. Our property value would decrease.

It is a danger to our way of life we have worked so hard to maintain.

--
This e-mail was sent from a contact form on MDEQ (https://mdeq.ms.gov)

Outlook

MDEQ Website Message - "Formal objection to proposed PSD Permit Air Ref. No. 1720-00100 submitted by Entergy, Mississippi"

From MDEQ <communications@mdeq.ms.gov>
Date Tue 5/5/2026 1:21 PM
To Thomas Parker <tparker@mdeq.ms.gov>; MDEQ Web <mdeqweb@mdeq.ms.gov>

From: Janice Washington [redacted]
Subject: Formal objection to proposed PSD Permit Air Ref. No. 1720-00100 submitted by Entergy, Mississippi

Message Body:
I am in total objection to the above reference permit request submitted to MDEQ by Entergy, Mississippi. I also object to their construction and operation of a natural gas-fired facility close to neighborhoods. This project has the potential to exceed the PSD threshold for the air quality in my neighborhood and the surrounding areas.

My objection is based on significant environmental and public health concerns associated with the projects projected emissions. According to the available information, the facility has the potential to emit pollutants at levels exceeding the PSD threshold, including Nitrogen Oxides, Carbon Monoxide, Volatile Organic Compounds. Sulfur Dioxide, Sulfuric Acid Mist and Greenhouse Gases. All which would adversely impact the air quality and the health of the residents in the surrounding neighborhoods. Exceeding the PSD thresholds is not a minor regulatory matter; it triggers stringent requirements under the Clean Air Act designed to protect air quality and public health. Also these emissions may cause or contribute to violations of National Ambient Air Quality Standards.

Given the scale of this proposed facility and its emissions profile, I am concerned about he cumulative impact of these pollutants on local and regional air quality and the air quality in my neighborhood which is directly across the street from the proposed site.
Also, the adverse health impact on nearby communities, including respiratory and cardiovascular conditions.

Protecting air quality and public health must remain a top priority. The potential long-term consequences of approving a facility with emissions exceeding PSD thresholds warrant extreme caution and should be denied. A public hearings should be held.

Thank you for your consideration.

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This e-mail was sent from a contact form on MDEQ (https://mdeq.ms.gov)

Outlook

MDEQ Website Message - "Oppose lowering the PSD thresholds"

From MDEQ <communications@mdeq.ms.gov>
Date Tue 5/5/2026 2:18 PM
To Thomas Parker <tparker@mdeq.ms.gov>; MDEQ Web <mdeqweb@mdeq.ms.gov>

From: Kristen Camp Borne <[redacted]
Subject: Oppose lowering the PSD thresholds

Message Body:
I oppose lowering the PSD thresholds for the new Entergy plant. We have both a young child and an elderly family member in our home, and even small increases in NOx, SO_2, or fine particulate matter can affect vulnerable groups. Lowering these thresholds reduces the protections meant to keep our air safe. Please keep the current standards in place.

--
This e-mail was sent from a contact form on MDEQ (https://mdeq.ms.gov)

Outlook

MDEQ Website Message - "Formal objection to proposed PSD Construction permit. Air Ref. No. 1720-00100"

From MDEQ <communications@mdeq.ms.gov>
Date Wed 5/6/2026 9:41 PM
To Thomas Parker <tparker@mdeq.ms.gov>; MDEQ Web <mdeqweb@mdeq.ms.gov>

From: Anthony Washington <[redacted]
Subject: Formal objection to proposed PSD Construction permit. Air Ref. No. 1720-00100

Message Body:
I am formally submitting my written request to object to the Mississippi Entergy permit, Air Ref No. 1720-00100. My objection is based on significant environmental and public health concerns associated with the project's projected emissions. According to the permit request, the facility has the potential to emit pollutants at levels exceeding the PSD thresholds. This will create a negative impact on the health of residents near the site. Our neighborhood is right across the street from the proposed facility. Protecting air quality and public health must be a top responsibility.

--
This e-mail was sent from a contact form on MDEQ (https://mdeq.ms.gov)

Outlook

MDEQ Website Message - "Entergy Air permit"

From MDEQ <communications@mdeq.ms.gov>
Date Thu 5/7/2026 4:41 PM
To Thomas Parker <tparker@mdeq.ms.gov>; MDEQ Web <mdeqweb@mdeq.ms.gov>

From: LaTonya Fuqua Stafford <[redacted]
Subject: Entergy Air permit

Message Body:
We ask you to deny permit No. 1720-00100 for the Entergy Mississippi LLC Traceview Advanced Power Station (TAPS) at 1972 W County Line Road. We also request a public hearing as the community deserves the chance to hear out, and publicly comment on, MDEQ's analysis and how proposed projects will impact our health and the environment.
The health consequences of this plant are clear and well-documented. Emissions of fine particulate matter (PM2.5) and nitrogen oxides (NOx) from natural gas turbines are linked to respiratory and cardiovascular disease, asthma, and premature death—with children and seniors bearing the greatest risk.
Independent analysis by the EmPower Analytics Group projects that permitted pollution levels from Traceview will cause $18–$32 million in annual monetized health damages, including 1.1–2.1 premature deaths per year, alongside nonfatal heart attacks, respiratory ER visits, new asthma cases, and roughly 240 missed school days and 89 missed work days annually. Over 30 years, these figures grow to $538–$948 million in damages and 34–62 deaths.
This is consistent with the broader scientific literature. Studies of similarly sized combined cycle gas turbines have found measurable increases in emergency visits even when plants operate below permitted limits. Critically, there is no known safe level of PM2.5 exposure—a landmark Harvard study of 68 million Medicare enrollees found a strong causal link between long-term PM2.5 exposure and mortality even below current regulatory standards (Wu et al., Science Advances, 2020).
These are preventable harms. I urge the Board to deny permit No. 1720-00100 and to hold a public hearing so that affected community members can meaningfully participate in this decision.

Respectfully submitted,
Jefforey and LaTonya Stafford

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This e-mail was sent from a contact form on MDEQ (https://mdeq.ms.gov)

Outlook

RE: Comment on Draft PSD Air Construction Permit No. 1720-00100

From cmann mannagency.com [redacted]
Date Thu 5/7/2026 9:39 PM
To Thomas Parker <tparker@mdeq.ms.gov> [redacted]

This Message Is From an External Sender
This message came from outside your organization.

May 7, 2026

Dear Mr. Parker:

Please let me know you received this. This is a request that the MDEQ Permit Board deny permit No. 1720-00100 for the Entergy Mississippi LLC Traceview Advanced Power Station (TAPS) at 1972 W County Line Road. I also request a public hearing as the community deserves the chance to hear out, and publicly comment on, MDEQ's analysis and how proposed projects will impact our health and the environment.

The health consequences of this plant are clear and well-documented. Emissions of fine particulate matter (PM2.5) and nitrogen oxides (NOx) from natural gas turbines are linked to respiratory and cardiovascular disease, asthma, and premature death—with children and seniors bearing the greatest risk.

Independent analysis by the EmPower Analytics Group projects that permitted pollution levels from Traceview will cause $18–$32 million in annual monetized health damages, including 1.1–2.1 premature deaths per year, alongside nonfatal heart attacks, respiratory ER visits, new asthma cases, and roughly 240 missed school days and 89 missed workdays annually. Over 30 years, these figures will grow to $538–$948 million in damages and 34–62 deaths.

This is consistent with the broader scientific literature. Studies of similarly sized combined cycle gas turbines have found measurable increases in emergency visits even when plants operate below permitted limits. Critically, there is no known safe level of PM2.5 exposure—a landmark Harvard study of 68 million Medicare enrollees found a strong causal link between long-term PM2.5 exposure and mortality even below current regulatory standards (Wu et al., Science Advances, 2020).

These are preventable harms. I urge the Board to deny permit No. 1720-00100 and to hold a public hearing so that affected community members can meaningfully participate in this decision.

Respectfully submitted,

Carol Mann

[redacted]

Outlook

Questions and Concerns Regarding Proposed Gas-Powered Plant in the Ridgeland Area

From Meisha Ross [redacted]
Date Fri 5/8/2026 2:04 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

Good morning,

I recently came across information regarding the potential development of a gas-powered plant in the Ridgeland area, and I wanted to reach out to learn more about the proposal and its anticipated impact on the surrounding community.

As a resident and someone who cares deeply about the long-term growth and well-being of our area, I believe many community members would appreciate greater transparency regarding the project's environmental impact, infrastructure considerations, public health implications, and overall benefits to the community.

Specifically, I would appreciate any available information regarding:

- The current status and timeline of the proposed project
- Environmental studies or assessments being conducted
- Expected impact on nearby neighborhoods and businesses
- Planned community engagement opportunities or public forums
- Economic benefits and long-term sustainability considerations

I understand projects of this scale often involve many moving parts, but open communication and community involvement are important in helping residents feel informed and heard throughout the process.

Thank you for your time and consideration. I look forward to learning more and staying informed as discussions continue.

Kind Regards,

M. Ross

Outlook

: : Regarding the Application for Air Permit by Entergy Traceview (Ridgeland Gas Power Plant).

From Jan Richardson [redacted]
Date Fri 5/8/2026 7:26 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

Dear Mr. Parker:

Attn: Application for Air Permit by Entergy Traceview (Ridgeland Gas Power Plant).

Please have the MDEQ application review and decision process for the Entergy Air Permit be conducted transparently at a **public hearing** so that the voices of homeowners, neighbors, and the public can be heard and be on record related to this matter.

Jan Richardson
Dinsmor Subdivision
Ridgeland

Sent from my iPhone

Outlook

NO DATA CENTER

From Latrice Notree [redacted]
Date Fri 5/8/2026 9:23 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

This morning I want to voice my concerns about the data centers or the near future forum to further discuss them NOT COMING TO CENTRAL MISSISSIPPI. The Governing powers need to put real concerns on the table first.S And the data centers would not make the list.

Sincerely,

LaTrice Notree

Outlook

HIGHLY OPPOSE THE GAS PLANT

From Willis Finley <[redacted]>
Date Fri 5/8/2026 9:55 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This is not a good idea and we do not want it.

Willis Finley
[redacted]
Sent from Willis' iPhone

Outlook

Comments on Entergy Air Permit Request

From K Rachal [redacted]
Date Fri 5/8/2026 10:38 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

My name is Kenya Rachal and I live near the site of Entergy's proposed power station at 1972 W. County Line Road. My family and I ask you to deny Entergy's permit request (1720-00100).

We also request a public hearing as our community deserves the opportunity to hear and publicly comment on MDEQ's analysis and how this proposed project will impact residents' health and our environment.

As a person who grew up in cancer alley in Iberville Parish, Louisiana, I am personally aware of the health consequences that come from the emissions of natural gas turbines. I left cancer alley to move to an area with a better environment and now, this kind of facility wants to locate near my home in Ridgeland.

Cities across the nation are realizing how harmful these facilities are and are taking steps to prevent them and mitigate damage. I implore you to deny this permit and give the public an opportunity to learn more and give their thoughts.

Kenya Key Rachal
[redacted]
Ridgeland, MS 39157
[redacted]

Kenya Key Rachal Attorney at Law

Outlook

Entergy Mississippi LLC, Traceview Advance Power Station

From Renee Chapman <[redacted]
Date Fri 5/8/2026 10:44 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

I am opposed to the permit to build station at 1972 West Countyline Road Ridgeland Mississippi. As a person with an auto immune system, I am concerned with the effect this type of business will have on my health and the overall well-being of my neighbors. The air quality of this type of business is unknown and may be horrible for us now and our families in the future. Please, I would love a public hearing to address questions from our community.

Outlook

Oppose Permit for Gas Powered Power Plant on W. County Line Road, Ridgeland

From stutill@comcast.net [redacted]
Date Fri 5/8/2026 11:05 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

I strongly oppose the issuance of a permit to build a gas powered power plant on W. County Line Road in Ridgeland.

A public hearing is required to allow anyone and everyone to have a say in what could have a terrible environmental and health impact on the surrounding communities.

Thank you,
Stuart Till
Madison, MS

Outlook

Data Centers - Ridgeland, MS

From LaNetra April [redacted]
Date Fri 5/8/2026 11:12 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

[I, LaNetra April] ask you to deny permit No. 1720-00100 for the Entergy Mississippi LLC Traceview Advanced Power Station (TAPS) at 1972 W County Line Road. We also request a public hearing as the community deserves the chance to hear out, and publicly comment on, MDEQ's analysis and how proposed projects will impact our health and the environment.

The health consequences of this plant are clear and well-documented. Emissions of fine particulate matter (PM2.5) and nitrogen oxides (NOx) from natural gas turbines are linked to respiratory and cardiovascular disease, asthma, and premature death—with children and seniors bearing the greatest risk.

Independent analysis by the EmPower Analytics Group projects that permitted pollution levels from Traceview will cause $18–$32 million in annual monetized health damages, including

1.1–2.1 premature deaths per year, alongside nonfatal heart attacks, respiratory ER visits, new asthma cases, and roughly 240 missed school days and 89 missed work days annually. Over 30 years, these figures grow to $538–$948 million in damages and 34–62 deaths.

This is consistent with the broader scientific literature. Studies of similarly sized combined cycle gas turbines have found measurable increases in emergency visits even when plants operate below permitted limits. Critically, there is no known safe level of PM2.5 exposure—a landmark Harvard study of 68 million Medicare enrollees found a strong causal link between long-term PM2.5 exposure and mortality even below current regulatory standards (Wu et al., Science Advances, 2020).

These are preventable harms. I urge the Board to deny permit No. 1720-00100 and to hold a public hearing so that affected community members can meaningfully participate in this decision.

Respectfully Submitted,

LaNetra Daniel April

Outlook

No Permit for Amazon or Entergy

From Shante Crockett [redacted]
Date Fri 5/8/2026 11:45 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

No to the 750 Mega Watt Gas Powered Plant! We do not want this in our community!
This will affect our health, finances and quality of life.

Outlook

Entergy/Amazon gas plant

From Vera Finley [redacted]
Date Fri 5/8/2026 11:51 AM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

Dear Mr. Parker,

Thank you for speaking with me this morning.

Please accept this email as formal notice of my opposition to the proposed gas plant in Ridgeland, MS. Given the research on the potential dangers this facility poses to our community, it is disheartening to see this project framed as progress. The fact that it is directly across the street from a large church should create a pause. I'm disappointed by the apparent lack of concern for the physical well-being of local residents.

I respectfully request that you reconsider this project and deny the necessary permits.

Best,

Vera Finley

Outlook

Public Hearing Request re: Proposed Determinations

From KF [redacted]
Date Fri 5/8/2026 12:01 PM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

Greetings Mr. Parker,

I am writing to request public hearing(s) regarding the following item:

Prevention of Significant Deterioration (PSD)Construction Permit , Air Ref, No. 1720-00100.

Ridgeland, MS 39157

Warm regards,
Ms. Kimberly Funchess

Outlook

MDEQ Website Message - "Draft PSD Air Construction permit no. 1720-00100"

From MDEQ <communications@mdeq.ms.gov>
Date Fri 5/8/2026 12:33 PM
To Thomas Parker <tparker@mdeq.ms.gov>; MDEQ Web <mdeqweb@mdeq.ms.gov>

From: Emelie hebert <[redacted]
Subject: Draft PSD Air Construction permit no. 1720-00100

Message Body:
Take action TODAY! It's super easy. Email Thomas Parker at MDEQ: https://www.mdeq.ms.gov/about-mdeq/contact-mdeq/staff-directory/id/parker-thomas/ and say something like this: Subject: Draft PSD Air Construction Permit No. 1720-00100

Mr. Parker:

I am a Mississippi resident and I oppose the air permit application for the Traceview natural gas power plant. I am concerned about the deterioration of our air quality and the associated health risks to those of us who live, work, play, and worship in the area. At a minimum, there should be a PUBLIC hearing so the PUBLIC can better understand the health and environmental risks associated with this plant prior to any permitting decision being made.

Thank you for your consideration and for the important work you do protecting Mississippi's environment.

Sincerely,
Emelie Hebert

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This e-mail was sent from a contact form on MDEQ (https://mdeq.ms.gov)

Outlook

Comment on Draft PSD Air Construction Permit No. 1720-00100

From John Bangsund <john@betterdatacenterproject.com>
Date Fri 5/8/2026 2:15 PM
To Thomas Parker <tparker@mdeq.ms.gov>
Cc EAMS Assistant <info@environmentaladvocatesmississippi.org>; Sarah K. Friedman <sarah@betterdatacenterproject.com>; Catherine Casomar <catherine@betterdatacenterproject.com>

1 attachment (891 KB)
BDCP and EAMS Comments for Permit 1720-00100 May 8 2026.pdf;

This Message Is From an External Sender
This message came from outside your organization.

Dear Mr. Thomas Parker and the MDEQ Permit Board,

Please find attached the file "BDCP and EAMS Comments for Permit 1720-00100 May 8 2026.pdf," which contains our public comments on the draft Prevention of Significant Deterioration construction permit for Entergy Mississippi LLC's Traceview Advanced Power Station (Air Ref. No. 1720-00100).

These comments are submitted on behalf of the Better Data Center Project and Environmental Advocates Mississippi prior to the close of the public comment period on May 8, 2026. We request this permit be denied and that a public hearing on this permit be held pursuant to Mississippi Code Ann. § 49-17-29(4)(a).

We also request that a copy of these comments be forwarded to EPA Region 4, Air Permits Section, for review in connection with EPA's oversight of PSD permits issued under delegated authority.

Please confirm receipt of this submission. We are available to discuss these comments at your convenience.

Respectfully submitted,

John Bangsund, PhD
Director of Science & Technology, Better Data Center Project [betterdatacenterproject.com]

Outlook

MDEQ Website Message - "Ridgeland Gas Plant"

From MDEQ <communications@mdeq.ms.gov>
Date Fri 5/8/2026 2:18 PM
To Thomas Parker <tparker@mdeq.ms.gov>; MDEQ Web <mdeqweb@mdeq.ms.gov>

From: Natalie [redacted]
Subject: Ridgeland Gas Plant

Message Body:
Good afternoon,
I am writing to request a public hearing regarding the permit for the gas power plant in Ridgeland Mississippi. As a resident, I am extremely concerned about the toxins that can affect our air quality, health, land and environment. I am staunchly against this. I would like the opportunity to speak about this matter and believe that the board should ensure that the public participates in this process. I am hopeful of the conclusion.
Thank you,
Natalie M.

--
This e-mail was sent from a contact form on MDEQ (https://mdeq.ms.gov)

Outlook

Amazon/Entergy plant proposal in Ridgeland, MS

From Jacquelin Hayes [redacted]
Date Fri 5/8/2026 2:31 PM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

Public meetings need to be held on the Ridgeland 75000mg watt plant.

Jacquelin Hayes

Outlook

Opposition to Proposed 750-Megawatt Gas Power Plant and Data Center Development in Ridgeland, MS

From lashondac1 <[redacted]
Date Fri 5/8/2026 4:13 PM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

To Whom It May Concern:

I am writing to express my strong opposition to the proposed 750-megawatt gas-powered plant and accompanying data center development planned for Ridgeland, Mississippi.

Gas-powered plants contribute to air pollution, greenhouse gas emissions, and potential public health concerns (especially respiratory issues). Increased emissions can affect air quality for nearby neighborhoods, schools, and businesses. In addition, the combination of a large-scale data center and power plant raises concerns regarding excessive energy consumption, strain on local infrastructure, water usage, noise pollution, and long-tern environmental damage.

I have watched various communities across the country increasingly voice concerns about large data developments and the environmental consequences tied to the power generation needed to support them. Recent projects in other states have faced significant public opposition due to concerns involving air quality, water usage, and community impact. While economic development is important, it should not come at the expense of residents' health, environmental sustainability, and the future quality of life of those in Ridgeland, Jackson, Madison, and surrounding areas. I respectfully urge decision-makers to carefully consider the long-term environmental and community impacts before approving this project.

Mississippi deserves responsible growth that protects both its residents and its natural resources for generations to come. Thank you for your time and I hope you take my stance under consideration.

Sincerely,

La Shonda S. Catchings, Ph.D.

Outlook

Data center - NO!!!!

From Amy Oneal <[redacted]>
Date Fri 5/8/2026 4:56 PM
To Thomas Parker <tparker@mdeq.ms.gov>

As a Ridgeland resident and taxpayer I oppose Data centers being built in my area. Stop simping for billionaire psychopaths.

Sent from my iPhone

Outlook

Comment on Draft PSD Air Construction Permit No. 1720-00100

From Angelle Bradford <angelle.bradford@sierraclub.org>
Date Fri 5/8/2026 5:00 PM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

REGARDING: Comment on Draft PSD Air Construction Permit No. 1720-00100

DATE: May 8, 2026

Dear Thomas Parker and the MDEQ Permit Board,

We are writing to state our opposition to granting Entergy an air permit for the Traceview Advanced Power Station located at 1972 W County Line Road in Ridgeland, Mississippi. This opposition is based on:

1. Well established health impacts that the NOx and PM2.5 emissions from this natural gas turbine would have on the nearby community and communities, with cumulative impacts that are not accounted for and that do not respect state boundaries, as we are the Delta Chapter of Sierra Club, based in Louisiana.
2. Deficiencies in the draft permit, including: 1) no ammonia slip limit, stack monitoring, or modeling despite large-scale SCR operations, a departure from national practice that could lead to underestimates in secondary PM2.5 formation; 2) failure to include emissions from the adjacent Amazon Data Services diesel generators in the cumulative NAAQS demonstration; and 3) insufficient modeling of temperature- and weather-dependent emission factors. Critically, the PSD application may understate the plants actual annual emissions because the lower efficiency of the air-cooled condenser during hot weather does not appear to be accounted for.

We ask you to deny permit No. 1720-00100 for the Entergy Mississippi LLC Traceview Advanced Power Station at 1972 W County Line Road. We also request a public hearing: as allies and nearby community members, we deserve to understand MDEQ's analysis and how proposed projects will impact our environment.

The impacts of this gas-fired power plant are clear. Emissions of fine particulate matter (PM2.5), nitrogen oxides (NOx), sulfur dioxide (SO_2), and ozone (O_3) have well-established negative health impacts, including exacerbating or increasing the risk of respiratory and cardiovascular diseases, asthma, premature death, and more. These impacts can be larger for children and seniors, who are more vulnerable.

Independent analysis by the EmPower Analytics Group of the Traceview Advanced Power Station specifically shows that permitted levels of pollution will create about $18 million to $32 million in annual monetized health damages—including 1.1 to 2.1 premature deaths per year alongside increases in nonfatal heart attacks, respiratory emergency-room visits, new asthma cases, and hundreds of asthma-symptom days and lost school and work days. Over 30 years, these impacts total $538.1 million to $947.8 million in monetized health damages and 34.4 to 62.4 deaths.

In total, the permitted levels of pollution are expected to result in about 240 missed school days and 89 missed work days each year. This means parents missing paychecks, students falling behind in class, and families facing difficult trade-offs between health and financial stability. For our children, missed classroom time can affect learning rates and long-term educational outcomes. For seniors, increased exposure can worsen existing heart and lung conditions, leading to more frequent hospital visits and reduced quality of life (see Additional Relevant Studies).

Many of our local healthcare facilities and services are closed, closing, or far away, making it harder for residents to access care. The health impacts from this plant's air pollution will compound existing issues of access, quality, and cost of healthcare on these nearby communities.

This study is not an anomaly. It adds to an existing body of research that shows how proximity to a natural gas power plant results in negative health impacts (see Additional Relevant Studies, below)**.** These studies show that health impacts can occur even in cases when the power plants are meeting required emissions standards. Importantly, there is no known safe level of exposure to fine particulate matter PM2.5. A 2020 study by researchers at Harvard T.H. Chan School of Public Health—which drew from 16 years of data from 68 million Medicare enrollees—found a strong causal link "between long-term PM2.5 exposure and mortality, even at levels below current standards" (Wu et al., *Science Advances*, Vol. 6, Issue 29, Article eaba5692 [science.org]). This is not just a future environmental concern—it is a predictable and preventable health and economic burden.

For us, these environmental impacts are personal. These are our children missing school, our families losing income, and our loved ones facing serious health risks. These are impacts our community cannot afford. Granting this permit would knowingly allow new pollution that studies show will increase illness, increase healthcare costs, and shorten lives. We urge you to deny this permit to protect our communities. We deserve a voice in decisions affecting the health, stability, and future of our communities, and request that MDEQ also hold a hearing.

Additional Relevant Studies

- A 2012 study by Dr. Agostino Di Ciaula, published in the European Journal of Internal Medicine (Vol. 23, Issue 2, pp. e53–e58 [ejinme.com]), analyzed the correlation between NOx and PM10 emissions and emergency visits within 3 km (~1.86 miles) of a **750 MW combined cycle gas turbine** power plant. The study found that even though pollutant levels were below **European** permitted limits (typically more stringent than in the United States), **increased air pollution was correlated with increased emergency visits at both 1km and 3km from the plant for people above 70 years**. They verified that concentrations of PM10 and NO2 were higher after the plant started operating compared to before it started operating, and also found that the highest concentration of emissions was recorded within 1km (~0.62 miles) of the plant. Finally, they note that "***no apparent threshold exists below which the link between air pollution from both particulate matter (PM) and nitrogen dioxide (NO2) and adverse health effects no longer***

***applies**, and elderly has been considered a risk group particularly susceptible to pollutant-induced injuries."*

- A 2016 study by Fouladi Fard et al., published in *Environmental Science and Pollution Research International* (Vol. 23, Issue 20, pp. 20922–20936 [pubmed.ncbi.nlm.nih.gov]), analyzed the health impacts from PM10, NOx, CO, and SO_2 emissions from a 715 MW combined cycle gas turbine power plant and **calculated a resulting annual health damage cost of approximately 4.76 million USD**. **This study also found that over 95% of the overall health damage costs were attributable to NOx and its derived pollutants,** and that for this particular plant and meteorological conditions, the peak concentration of pollutants occurred approximately 5 miles away from the plant.
- A July 2025 expert report by Dr. Chris C. Lim (*Comprehensive Health Impact Assessment and Economic Valuation: PM2.5 Emissions from the Proposed Chesterfield Energy Reliability Center*, submitted as testimony to Case No. PUR-2025-00037 [scc.virginia.gov]), estimated the health impacts from fine particulate matter (PM2.5) of the proposed Chesterfield Energy Reliability Center (CERC) [dominionenergy.com] in Virginia, which will have four 250 MW simple cycle natural gas turbines for a total capacity of 1,000 MW. **Dr. Lim found that the impacts on the approximately 1.3 million residents within 100km of the plant would experience substantial health consequences, "*including 6.71 premature deaths (with estimates ranging from 1.83 to 16.18 depending on the epidemiological study used) and 14,641 cases of illness each year*"**. Illnesses cited were "*14.05 myocardial infarctions, 38.59 new childhood asthma cases, 5.16 new Alzheimer's disease cases, 3,600 lost workdays, and 10,948 minor restricted activity days.*" These health impacts totalled to "*$88.5 million annually, with mortality contributing $79.9 million (90% of total costs) and morbidity accounting for $8.6 million.*" They also noted that "**CERC's projected PM2.5 emissions would therefore impose a substantial public health burden despite meeting current emission standards.**" This study finds that the highest annual concentrations of PM2.5 were located approximately 7 km (~4.35 miles) away from the facility.
- An analysis [rmi.org] by Rocky Mountain Institute (RMI) found that avoiding building the natural gas plants that were proposed in the US at the end of 2021 could prevent $23–$74 billion in *health impacts* over their assumed 20-year lifetimes from avoided air emissions produced by the gas power plant. They note that "*Health impacts are concentrated near proposed plant sites but felt nationwide, with more acute impacts in population-dense areas and areas with unfavorable wind patterns. Our analysis found that about 60 percent of the health impacts would fall in low-income communities and communities of color, especially in the population-dense Northeast.*"
-

A recent report by PSE Healthy Energy [healthyclimatewi.org] analyzed the impacts of annual PM2.5, NOx, VOC, and SO2 projected emissions from a 1100 MW Single Combustion Turbine (Oak Creek) in Wisconsin. They found that the proposed Oak Creek gas plant would generate a total of **$92.8 million to $144.8 million in health impact costs annually.**

Thank you for your time and consideration.

In Solidarity,

Gelle

Dr. Angelle Bradford Rosenberg (Cardiovascular Physiology and Medicine)
Chair and Volunteer Manager, Sierra Club Delta Chapter (Louisiana)
Cell: [redacted]

Outlook

MDEQ Website Message - "Permit"

From MDEQ <communications@mdeq.ms.gov>
Date Fri 5/8/2026 5:04 PM
To Thomas Parker <tparker@mdeq.ms.gov>; MDEQ Web <mdeqweb@mdeq.ms.gov>

From: Beverly Tarpley [redacted]
Subject: Permit

Message Body:
Subject: Draft PSD Air Construction Permit No. 1720-00100

Mr. Parker:

I am a Madison_ County resident, and I oppose the air permit application for the Traceview natural gas power plant. I am concerned about the deterioration of our air quality and the associated health risks to those of us who live, work, play, and worship in the area. At a minimum, there should be a PUBLIC hearing so the PUBLIC can better understand the health and environmental risks associated with this plant prior to any permitting decision being made.

Thank you for your consideration and for the important work you do protecting Mississippi's environment.

Sincerely,
Beverly Tarpley

--
This e-mail was sent from a contact form on MDEQ (https://mdeq.ms.gov)

Outlook

Want to say on Entergy and Amazon Gas Plant

From Traci hayes [redacted]
Date Fri 5/8/2026 5:28 PM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

We don't want it.
Why is this being placed in the midst of neighborhoods and viable communities.
This is silly, insane and going to poison us for a few short term money gain.
We should be able to comment and decide if we want this one of the best communities in Jackson and Ridgeland.

Ridiculous!!!!

Stop this!

Outlook

Comment on Draft PSD Air Construction Permit 1720-00100

From Edward Henfey [redacted]
Date Fri 5/8/2026 7:48 PM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

To: Thomas Parker and the MDEQ Permit Board

From: Edward M. Henfey

[redacted]

Ridgeland, Mississippi

Subject: Comment on Draft PSD Air Construction Permit No. 1720-00100

Entergy Mississippi Traceview Advanced Power Station

And Objection thereto

Date: May 8, 2026

I learned yesterday that MDEQ opened public comment regarding the proposed above-captioned Entergy Power Plant being considered at the junction of County Line and North Livingstone Road in Ridgeland. This was the first I heard of this public comment opportunity. My wife and I live within five miles of the proposed power plant and never received any prior notice. I spoke in opposition to the project at the second Ridgeland Zoning Board Hearing and the City Council hearing. My name and address are in their files, and I would have expected this would have prompted advance notice to me. This entire project and approval process appears to have been conducted in a surreptitious manner.

My wife and I are opposed to the Power Plant due to the well-documented public health risks, adverse economic impact to local residents, and overall degradation

of the residential and peaceful nature of the area, which Entergy never addressed prior to the Zoning Board and City Council hearings. The City of Ridgeland granted the Conditional Use Permit notwithstanding the Zoning Board voting against it, and granting of the Conditional Use Permit is in clear violation of Ridgeland's Zoning Ordinance.

The City approved, over the objection of most residents who actually were aware of the petition, a Conditional Use Permit to convert the approximate 450 acre Green Pasture Farm from a R-1A Zone, which permits 0 to 4 single family homes to be built on one acre of property, so as to allow a 750 MW power generating station and sub-station to be built on the property. The property is right in the middle of a densely populated area of single family homes in Madison and Hinds Counties with numerous businesses and recreational facilities close by. The Petition calls this a public/quasi-public facility and utility. This does not appear to be what a Conditional Use Permit was intended. The permit is not seeking something akin to a homeowner asking to build a non-conforming structure on his property. Rather, it is attempting to reconfigure the entire 448 acres of pasture, farmland, and forest, into a power generating station. My reading of the petition indicates the power "generator" pad is 875 feet by 1,750 feet, roughly the equivalent of nearly six football fields. Also, a substation is planned to take up an additional 907 feet x 1,393 feet, or an additional four and a half football fields.

This plan has been in development for several years, according to Jeremy Vanderloo, Entergy's Vice President of Business Opportunities and Strategy, mostly in secret to the community. This appears to be continuing since just as recently as this week, I saw nothing readily available regarding any hearings and was never given notice of this hearing, only learning about it yesterday. At the Zoning Board hearing, we asked is this power plant designed to supply electricity to the adjacent multi-billion dollar Amazon facility and local residences and businesses? The response from Mr. Vanderloo at the Zoning Board hearing was a flat, "I don't know. Ask Amazon". He told the Board he had no idea as to how much power their homes required. Are we and MDEQ expected to believe that Entergy intends to spend $1.2 billion on a power plant for which they have no idea as to who requires electricity and how much is required?

Testimony in opposition to the plan was presented to the Zoning Board with citations to various articles referencing the airborne carcinogens and other life threatening pollutants. These airborne pollutants can travel at least five miles from their source and produce devastating effects on residents and visitors. Chemicals can leach into the foundation and ground. The plan appears to place the proposed power generator right over a large pond on the property. What is the source of the pond? Where does it drain? The burden of proof is on Entergy to satisfy MDEQ of the safety of the power plant.

After digging through multiple websites in the last two days, I found the April 8, 2026 Notice for Public Hearing, but have still found no documentation presented

that the power plant is safe. To the contrary, the April 8, 2026 MDEQ Notice itself states, "...this project has potential emissions **that exceed** (emphasis mine) the PSD thresholds for Nitrogen Oxides, Carbon Monoxide, Volatile Organic Compounds, Particulate Matter less than 10 um, Particulate Matter less than 2.5upm, Sulfur Dioxide, Sulfuric Acid Mist, and Greenhouse Gasses…". Entergy has not met its burden of proof as to the safety of this power plant. Rather, Entergy's own permit application appears to indicate that its emissions will exceed Prevention of Significant Deterioration levels.

An origination known as Oil and Gas Watch states, on its website, that this power plant could emit over 2.5 million tons of greenhouse gasses and over 2,000 tons of health harming criteria pollutants every year. Thousands of homes and businesses are within close proximity of this proposed plant and each and every one of those residents and business visitors will be subjected to these life-threatening pollutants.

I am aware Ridgeland and surrounding towns wish to expand and bring development and growth to their City, and that requires more electricity. But at what cost? Ridgeland's own Zoning Ordinance requires proof as to all matters required to be proved by Section 600.09 of the Zoning Ordinance in order to grant a Conditional Use Permit. There are fifteen questions that must be answered in the affirmative to support the Permit. Three questions specifically deal with the environment, which based on Entergy's own analysis, recited in the MDEQ's Notice of Public Comment, belie its safety.

For these and other well supported reasons, which I am sure have been presented by concerned and learned individuals, I am opposed to MDEQ granting approval to the Entergy Traceview Power Generating Plant Proposal.

Outlook

Public Hearing regarding Construction Permit, Air Ref. No. 1720-00100 (SIC CODE 4911)

From Ranetta Bell-Bass [redacted]
Date Fri 5/8/2026 11:46 PM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

As a Homeowner and Resident along the County Line Corridor, South of the Construction area in Ridgeland, MS. first and foremost, disagree with this intrusion
in a settled Community which has been occupied at least for the past 70 years by people whose families bought land, built homes for a peaceful, quiet,
non polluted environment. Traffic has already doubled on County Line from HWY 51 going west to HWY 49 bringing additional road rage, service trucks destroying
the pavement, speeding, traffic violations, garbage dumped along the County Line sidelines has increased, dust from all these new trucks carrying loads of
whatever back and forth to the street where the Little Dixie Dump is located.

We are entitled to a Public Hearing on this before a decision is passed. We, who live on the South Side of County Line should not have our property taxes
deminished, health impaired with the pollution. This is a formal request for a public hearing.. Resident of Lakeover Homeowner Association.

Mr. Carl and Mrs. Ranetta Bass
[redacted]
Jackson, MS 392013

Outlook

Comments on Traceview Power Station

From K Rachal [redacted]
Date Tue 7/14/2026 5:49 PM
To Thomas Parker <tparker@mdeq.ms.gov>

This Message Is From an External Sender
This message came from outside your organization.

My name is Kenya Rachal and my family and I live near the site of the proposed Traceview power station off W. County Line Road. I am unable to attend tonight's public comment hearing in person so I am emailing my comments.

As a person who grew up in cancer alley in Iberville Parish, Louisiana, I am personally aware of the health consequences that come from the emissions of natural gas turbines. I left cancer alley to move to an area with a better environment and now, this kind of facility wants to locate near my home in Ridgeland.

I am very concerned about the harmful emissions that would result from this power station and implore you to deny this permit.

Kenya Rachal
[redacted]
Ridgeland, MS 39157
[redacted]

Kenya Key Rachal Attorney at Law

APPENDIX C

Public Notice Documents and Associated Requests

Public Notice
Mississippi Environmental Quality Permit Board
P. O. Box 2261 | Jackson, MS 39225
515 East Amite St. | Jackson, MS 39201
Telephone No. (601) 961-5171

Public Notice Start Date: April 8, 2026 MDEQ Contact: Thomas Parker

Entergy Mississippi LLC, Traceview Advanced Power Station, located at 1972 W County Line Road, in Ridgeland, MS, (Madison County) (407) has applied to the Mississippi Department of Environmental Quality (MDEQ) for the following permitting action(s): Prevention of Significant Deterioration (PSD) Construction Permit, Air Ref. No. 1720-00100. The applicant's operations fall within SIC Code 4911. A Statement of Basis has been prepared that contains a discussion of the decision-making that went into the development of the permit and provides the permitting authority, the public, and other government bodies a record of the technical issues surrounding issuance of the permit. The Statement of Basis also addresses any changes to emissions and/or discharges resulting from any modification of the facility.

Entergy Mississippi, LLC (Entergy) submitted a PSD Construction application proposing to build a new natural gas-fired 1x1 combined cycle power plant in Ridgeland, MS, which will be referred to as the Traceview Advanced Power Station (TAPS). This plant will be nominally rated to provide 750 megawatts (MW) of net power.

The power generation equipment proposed for TAPS includes a Mitsubishi Model M501JAC Combustion Turbine (CT) equipped with supplementary-fired duct burners and a Heat Recovery Steam Generator (HRSG). In addition to power from a generator turned by the gas turbine shaft, additional power is supplied by a generator turned by a steam turbine which is fed steam generated in the HRSG. The proposed facility will have other ancillary sources of air pollution which include: one (1) diesel-fired emergency standby generator, one (1) diesel-fired firewater pump, one (1) natural gas-fired heater, natural gas fugitive emissions, ammonia fugitive emissions, diesel fugitive emissions, combustion turbine lube oil vent emissions, steam turbine lube oil vent emissions, two (2) ultra low sulfur diesel (ULSD) storage tanks, two (2) natural gas condensate storage tanks.

This project has potential emissions that exceed the PSD thresholds for Nitrogen Oxides (NO_x), Carbon Monoxide (CO), Volatile Organic Compounds (VOCs), Particulate Matter less than 10 µm (PM_{10}), Particulate Matter less than 2.5 µm ($PM_{2.5}$), Sulfur Dioxide (SO_2), Sulfuric Acid Mist (H_2SO_4), and Greenhouse Gasses (GHG). PM_{10} and NO_x emissions, which set certain requirements on the permissible incremental impact on air quality and the degree of control of air contaminants, have been reviewed for compliance with the applicable regulations. The project will be located in a PSD Class II area, and the following consumption of air quality increments is predicted to occur:

Particulate Matter Less than 10 microns

Annual	0.09985 micrograms per cubic meter or
	0.59% of the 17 micrograms per cubic meter increment.
24-Hour	1.368 micrograms per cubic meter or
	4.56% of the 30 micrograms per cubic meter increment.

Nitrogen Dioxide

Annual	0.2396 micrograms per cubic meter or
	0.96% of the 25 micrograms per cubic meter increment.

The staff of the Permit Board has developed this draft permit based on information submitted to the Permit Board by the applicant, appropriate State and Federal agencies and other interested parties. The staff of the Permit Board is soliciting all relative information pertaining to the proposed activity, including public comment, to ensure that the draft permit complies with all State and Federal regulations. Public review and comment on the draft permit and supporting documentation is an important element in the staff evaluation of the permit action and its consideration of key aspects. The draft permit conditions have been developed to ensure compliance with all State and Federal regulations but are subject to change based on information received as a result of public participation.

Persons wishing to comment upon or object to the proposed determinations are invited to submit comments in writing to Thomas Parker at https://www.mdeq.ms.gov/Parker-Thomas/ or to the Permit Board address shown

above, no later than the end of the thirty (30) day public notice. All comments received by this date will be considered in the formulation of final determinations regarding the application(s). A public hearing will be held if the Permit Board finds a significant degree of public interest in the proposed permit(s). Persons wishing to request a public hearing may do so by submitting that request in writing to Thomas Parker at https://www.mdeq.ms.gov/Parker-Thomas/ or to the Permit Board address shown above. The Permit Board is limited in the scope of its analysis to environmental impact. Any comments relative to zoning or economic and social impacts are within the jurisdiction of local zoning and planning authorities and should be addressed to them.

Additional details about the application, including a copy of the draft permit, are available by writing or calling the Public Records Request Officer at the above Permit Board address and telephone number or by completing the form at the following website: https://www.mdeq.ms.gov/about-mdeq/public-records-request/public-records-request-form/. Additionally, a copy of the draft permit and statement of basis may be found on the MDEQ's website at: https://opc.deq.state.ms.us/publicnotice.aspx. This information is also available for review at the office of the MDEQ at the Permit Board address shown above during normal business hours. Please bring the foregoing to the attention of persons whom you know will be interested.

State of Mississippi

TATE REEVES
Governor

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHRIS WELLS, EXECUTIVE DIRECTOR
April 8, 2026

Ms. Annisa White
Environmental Supervisor
Entergy Mississippi LLC, Traceview Advanced Power Station
2107 Research Forest Drive
The Woodlands, TX 77380

Dear Ms. White:

Re: Entergy Mississippi LLC, Traceview
Advanced Power Station
Draft Permit Public Notice
Air Ref. No.: 1720-00100
Madison County

Attached are the public notice, draft permit and rationale for the above referenced permit. If you have not already done so, you are invited to submit written comments by no later than May 8, 2026. A decision regarding the proposed permit(s) will be made after all public comments have been duly considered.

If you have any questions, please contact me at (601) 961-5148.

Sincerely,

Thomas Parker

Thomas Parker
Air I Branch
Air Division

cc: Annisa White: awhite5@entergy.com
Jeremy Halland: jhallan@entergy.com
Raymond Allen: raymond.allen@wsp.com
Clinton Gentry: cgentry@mdeq.ms.gov

89056 PER20250001

State of Mississippi

TATE REEVES

Governor

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHRIS WELLS, EXECUTIVE DIRECTOR

April 8, 2026

Honorable Mayor:

Re: Entergy Mississippi LLC, Traceview
Advanced Power Station
Draft Permit Public Notice
Air Ref. No.: 1720-00100
Madison County

Attached please find a copy of the public notice for the above referenced facility. Additional information regarding the proposed permitting action may be obtained from our office or at the following website: https://opcgis.deq.state.ms.us/ensearchonline/epd-permits-at-public-notice.aspx.

If you have any comments concerning the proposed permitting action, please notify this office in writing no later than May 8, 2026. If you would like to contact me to discuss any of these concerns, please call me at (601) 961-5148.

Sincerely,

Thomas Parker

Thomas Parker
Air I Branch
Air Division

cc: Gene McGee: mayor.mcgee@ridgelandms.org
Clinton Gentry: cgentry@mdeq.ms.gov

89056 PER20250001

State of Mississippi

TATE REEVES
Governor

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHRIS WELLS, EXECUTIVE DIRECTOR

April 8, 2026

Madison County Board of Supervisors
PO Box 608
Canton, MS 39046

Dear Supervisors:

Re: Entergy Mississippi LLC, Traceview
Advanced Power Station
Draft Permit Public Notice
Air Ref. No.: 1720-00100
Madison County

Attached please find a copy of the public notice for the above referenced facility. Additional information regarding the proposed permitting action may be obtained from our office or at the following website: https://opcgis.deq.state.ms.us/ensearchonline/epd-permits-at-public-notice.aspx.

If you have any comments concerning the proposed permitting action, please notify this office in writing no later than May 8, 2026. If you would like to contact me to discuss any of these concerns, please call me at (601) 961-5148.

Sincerely,

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Thomas Parker

Thomas Parker
Air I Branch
Air Division

cc: Gerald Steen: gerald.steen@madison-co.com
Clinton Gentry: cgentry@mdeq.ms.gov

89056 PER20250001

Notice of Public Hearing
Mississippi Environmental Quality Permit Board
P. O. Box 2261 | Jackson, MS 39225
515 East Amite St. | Jackson, MS 39201
Telephone No. (601) 961-5171

Public Hearing Date: **July 14, 2026** MDEQ Contact: **Thomas Parker**

Entergy Mississippi LLC, Madison County Advanced Power Station, located at 1972 W County Line Road, in Ridgeland, MS, (407) 929-2071, has applied to the Mississippi Department of Environmental Quality (MDEQ) for the following permitting action(s): Ref. No. 1720-00100. The applicant's operations fall within SIC Code 4911. The permit board will hold a public hearing on this matter at 5:30 PM till 8:30 PM on **July 14, 2026**, at the **Greater Pearlie Grove Missionary Baptist Church, 1640 West County Line Road, Jackson MS 39213**. A Statement of Basis has been prepared that contains a discussion of the decision-making that went into the development of the permit and provides the permitting authority, the public, and other government bodies a record of the technical issues surrounding issuance of the permit. The Statement of Basis also addresses any changes to emissions and/or discharges resulting from any modification of the facility.

Entergy Mississippi, LLC (Entergy) submitted a PSD Construction application proposing to build a new natural gas-fired 1x1 combined cycle power plant in Ridgeland, MS, which will be referred to as the Traceview Advanced Power Station (TAPS). This plant will be nominally rated to provide 750 megawatts (MW) of net power.

The power generation equipment proposed for TAPS includes a Mitsubishi Model M501JAC Combustion Turbine (CT) equipped with supplementary-fired duct burners and a Heat Recovery Steam Generator (HRSG). In addition to power from a generator turned by the gas turbine shaft, additional power is supplied by a generator turned by a steam turbine which is fed steam generated in the HRSG. The proposed facility will have other ancillary sources of air pollution which include: one (1) diesel-fired emergency standby generator, one (1) diesel-fired firewater pump, one (1) natural gas-fired heater, natural gas fugitive emissions, ammonia fugitive emissions, diesel fugitive emissions, combustion turbine lube oil vent emissions, steam turbine lube oil vent emissions, two (2) ultra low sulfur diesel (ULSD) storage tanks, two (2) natural gas condensate storage tanks.

This project has potential emissions that exceed the PSD thresholds for Nitrogen Oxides (NO_x), Carbon Monoxide (CO), Volatile Organic Compounds (VOCs), Particulate Matter less than 10 µm (PM_{10}), Particulate Matter less than 2.5 µm ($PM_{2.5}$), Sulfur Dioxide (SO_2), Sulfuric Acid Mist (H_2SO_4), and Greenhouse Gasses (GHG). PM_{10} and NO_x emissions, which set certain requirements on the permissible incremental impact on air quality and the degree of control of air contaminants, have been reviewed for compliance with the applicable regulations.

The staff of the Permit Board has developed this draft permit based on information submitted to the Permit Board by the applicant, appropriate State and Federal agencies and other interested parties. The staff of the Permit Board is soliciting all relative information pertaining to the proposed activity, including public comment, to ensure that the final staff recommendation on the draft permit complies with all State and Federal regulations. Public review and comment on the draft permit and supporting documentation is an important element in the staff evaluation and resulting recommendation to the Permit Board. The draft permit conditions have been developed to ensure compliance with all State and Federal regulations but are subject to change based on information received as a result of public participation.

The Permit Board is created by Mississippi Law for the purpose of issuing or denying, under such conditions and limitations as it may prescribe, environmental protection permits to control or prevent the release of contaminants into the air and waters of the State. By law, the Board is composed of the Chief of the Bureau of Environmental Health within the State Department of Health; the Director of the Department of Wildlife, Fisheries, and Parks, the Director of the Office of Land and Water Resources within the Department of Environmental Quality, the Supervisor of the State Oil and Gas Board; the Director of the Department of Marine Resources; the Director of Geology within the Department of Environmental Quality; and the Commissioner of Agriculture and Commerce or their respective designees.

The Purpose of this hearing is to explain the proposed project and to receive comments from the public regarding the project and particularly the draft permits and the disclosure statement. Upon arrival at the public hearing, everyone will be asked to register and note if they expect to make a statement. Statements will be received in the order of registration (i.e., first to register will be the first to give public comment). However, everyone will be given an

opportunity to comment including those who indicated during registration that they did not expect to comment. Persons commenting will not be limited to any specific time so long as the comments are reasonably concise and relate, at least generally, to the responsibilities of the Permit Board. However, because a large number of people often wish to speak, comments should be as brief as reasonably possible. Comments can be presented in writing if preferred. In order to help facilitate understanding between citizens and the Permit Board staff, the staff will attempt to answer questions at the hearing. However, such interchanges should be as brief as possible so that everyone who wants to speak has the opportunity as promptly as possible. Any comments relative to zoning or economic and social impacts are within the jurisdiction of local zoning and planning authorities and should be addressed to them.

Please contact Mr. Jeffrey Bland via https://www.mdeq.ms.gov/Bland-Jeffrey/ to request interpreter services for hearing impaired.

All comments made during this public hearing will be transcribed and made a part of the Permit Board file in this matter. Before making any decision, the Board will consider all issues and concerns raised regarding environmental protection. Any interested party aggrieved by the decision of the Permit Board may file a written request for a formal hearing, after the formal evidentiary hearing the Permit Board will make its final decision in the matter. Any person aggrieved by that decision may appeal to the chancery court in the county of the proposed project.

Documents relevant to the proposed permit may be found at the following link for public distribution: https://www.mdeq.ms.gov/permits/environmental-permits-division/additional-information-for-permits-at-public-notice/. The application, including a copy of the draft permit, are available by writing or calling the Public Records Request Officer at the above Permit Board address and telephone number or by completing the form at the following website: https://www.mdeq.ms.gov/about-mdeq/public-records-request/public-records-request-form/. Additionally, a copy of the draft permit and statement of basis may be found on the MDEQ's website at: https://opc.deq.state.ms.us/publicnotice.aspx. This information is also available for review at the office of the MDEQ at the Permit Board address shown above during normal business hours. Please bring the foregoing to the attention of persons whom you know will be interested.

PUBLIC NOTICE OF PERMIT

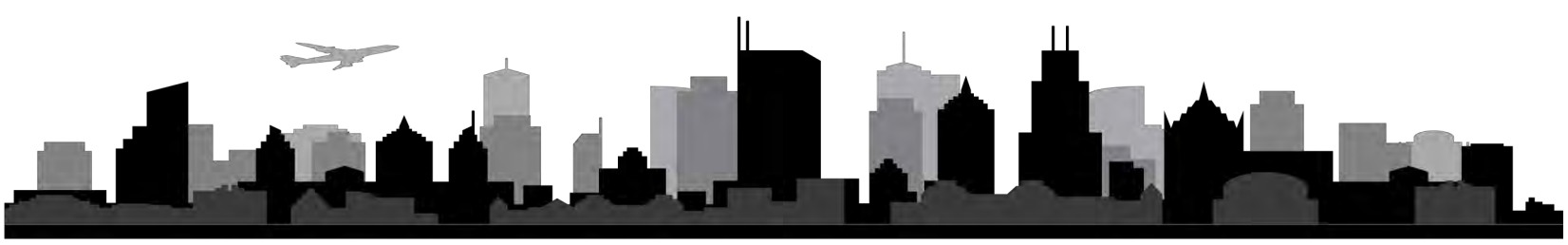
Mississippi Environmental Quality Permit Board

P.O. Box 2261 Jackson, MS 39225

Entergy Mississippi LLC, Traceview Advanced Power Station, located at 1972 W County Line Road, in Ridgeland, MS, (Madison County) (407) has applied to the Mississippi Department of Environmental Quality (MDEQ) for the following permitting action(s): **Prevention of Significant Deterioration (PSD) Construction Permit, Air Ref. No. 1720-00100.**
(The applicant's operations fall within SIC Code 4911)

Persons wishing to comment upon or object to the proposed determinations are invited to submit comments in writing to Thomas Parker at https://www.mdeq.ms.gov/Parker-Thomas/ or to the Permit Board address shown above, no later than May 8th, 2026. **A public hearing will be held if the Permit Board finds a significant degree of public interest in the proposed permit(s).** Persons wishing to request a public hearing may do so by submitting that request in writing to Thomas Parker at https://www.mdeq.ms.gov/Parker-Thomas/ or to the Permit Board address shown above. All comments received by May 8th, 2026 will be considered in the formulation of final determinations regarding the application(s). A copy of the draft permit and statement of basis may be found on the MDEQ's website at: https://opc.deq.state.ms.us/publicnotice.aspx

Any comments relative to zoning or economic and social impacts are within the jurisdiction of local zoning and planning authorities and should be addressed to them.



PUBLIC NOTICE OF PERMIT

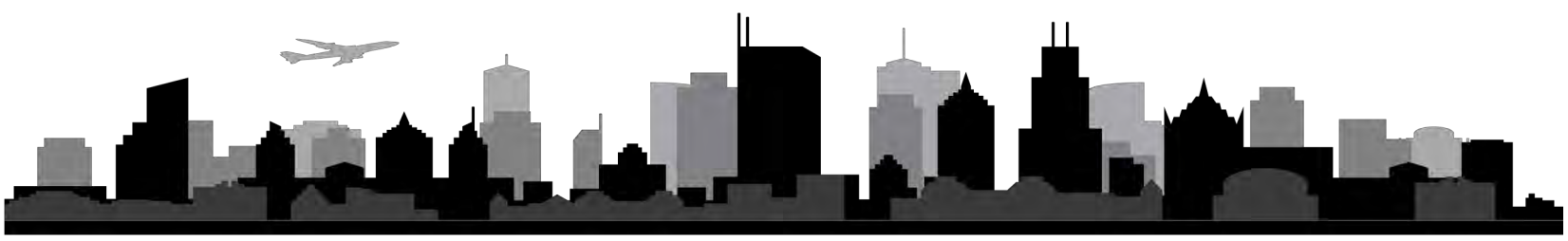
Mississippi Environmental Quality Permit Board

P.O. Box 2261 Jackson, MS 39225

Entergy Mississippi LLC, Traceview Advanced Power Station, located at 1972 W County Line Road, in Ridgeland, MS, (Madison County) (407) has applied to the Mississippi Department of Environmental Quality (MDEQ) for the following permitting action(s): **Prevention of Significant Deterioration (PSD) Construction Permit, Air Ref. No. 1720-00100.**
(The applicant's operations fall within SIC Code 4911)

Persons wishing to comment upon or object to the proposed determinations are invited to submit comments in writing to Thomas Parker at https://www.mdeq.ms.gov/Parker-Thomas/ or to the Permit Board address shown above, no later than May 8th, 2026. **A public hearing will be held if the Permit Board finds a significant degree of public interest in the proposed permit(s).** Persons wishing to request a public hearing may do so by submitting that request in writing to Thomas Parker at https://www.mdeq.ms.gov/Parker-Thomas/ or to the Permit Board address shown above. All comments received by May 8th, 2026 will be considered in the formulation of final determinations regarding the application(s). A copy of the draft permit and statement of basis may be found on the MDEQ's website at: https://opc.deq.state.ms.us/publicnotice.aspx

Any comments relative to zoning or economic and social impacts are within the jurisdiction of local zoning and planning authorities and should be addressed to them.



APPENDIX D

Certified Transcript of Public Hearing

In Re: Entergy Mississippi, LLC
Traceview Advanced Power Station

Transcript of Proceedings

July 14, 2026

All depositions & exhibits are available for downloading at
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MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

ENTERGY MISSISSIPPI, LLC
TRACEVIEW ADVANCED POWER STATION
AIR PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
PUBLIC HEARING

Greater Pearlie Grove Missionary Baptist Church
1640 West County Line Road
Jackson, Mississippi 39213
on Tuesday, July 14, 2026,
beginning at 5:45 p.m.

NIKKI L. LLOYD, CCR #1870

MR. WHITLOCK: Good evening, everyone. I'm assuming everybody can hear me. Is that too loud? Not loud enough? Okay. I got thumbs up in the back. All right. Perfect.

It is now 5:45, and we will formally begin the hearing. By all means, individuals can still come in, register, and we'll give everybody as time allows an opportunity to comment to speak. I will kind of note on the front end though, we do have a hard stop of 8:30. So I just want to let everybody be mindful of that and we'll just kind of go from there.

So thank you all for being here tonight. It is now 5:45. And I will now formally begin this public hearing. My name is Jaricus Whitlock, and I am chief of the air division at the Mississippi Department of Environmental Quality, or MDEQ for short.

This public hearing is for the proposed issuance of an air Prevention of Significant Deterioration permit to construct, for the construction and operation of a power generation facility owned and operated by Entergy Mississippi, LLC and located at 1972

West County Line Road in Ridgeland, Mississippi.

This public hearing is the last part of the second public comment period initiated for this proposed action, which began June 10th, 2026 and will formally conclude tonight at 12:00 a.m.

Now, given the interest this proposed project has garnered, I will share at the onset of this hearing that anything conveyed during this overall proceeding is considered public record and may be recalled, recorded, quoted and/or reported. Also, I will emphasize that this proposed permitting action is specifically for the construction of a power plant, not a data center. I know that's been some confusion about that matter in the -- in the media. This is specifically for a power plant proposed by Entergy.

The purpose of this public hearing is to receive comments, concerns and other information for consideration on the proposed draft Prevention of Significant Deterioration, or PSD for short, permit to construct requested by Entergy. This public hearing is a standard

part of the permitting process for projects such as this, and is an essential aspect of the review that will be conducted by MDEQ air permitting staff. As such, at the table with me tonight is Mr. Jeffrey Bland, air permitting coordinator for MDEQ's air permitting branch in the air division.

MDEQ developed a proposed draft permit and supporting documents based on a comprehensive review of all information submitted by the applicant for the proposed project. Moreover, the conditions of the draft permit were developed to ensure compliance with all applicable air regulations and standards established by the State of Mississippi and the United States Environmental Protection Agency, or EPA for short, but are subject to change based on information received during this public hearing as well as the overall public comment period. Please note that a final decision on this proposed air permitting action will be made by the Mississippi Environmental Quality Permit Board. The permit board is created by Mississippi law for the purpose of issuing, denying or modifying under such

conditions and limitations as it may prescribe environmental permits and coverages for air -- to control air and wastewater releases within the state of Mississippi. The composition of the permit board is established by law and consists of the directors or their assigned designees from specific state agencies that have interest in environmental matters throughout the state. A complete listing of the specific agencies and their corresponding directors or assigned designees can be found on MDEQ's website.

Now, I will provide a brief description of the proposed air permitting action under consideration.

On June 11th, 2025, MDEQ received an application from Entergy, Air Reference Number 1720-00100 requesting a PSD permit to construct for the proposed construction of a natural gas fired, combined cycle turbine power plant for base load operations. The proposed plant is rated to provide 750 megawatts of power and to be named Traceview Advanced Power Station, or Entergy Traceview for short.

For a combined cycle power plant,

electricity is initially generated through a combustion of natural gas in a primary turbine. Thereafter, the exhaust gas from natural gas combustion is routed through a heat recovery steam generator, which uses the heat from that exhaust gas to create steam and generate additional electricity in a steam turbine.

In addition to the primary combined cycle turbine, this proposed project will include the following additional emission sources: A natural gas fired dew point heater to heat the natural gas fed to the gas turbine and duct burners, diesel fired internal combustion engines for emergency standby power generation and emergency fire pump operations, diesel storage tanks, natural gas condensate storage tanks, and lube oil system things. The overall project is subject to the PSD permitting program because the potential emission of several air pollutants exceeds applicable thresholds established by federal law. As such, Entergy Traceview is considered a PSD major source.

As a PSD major source, Entergy Traceview is required to complete a Best Available

Control Technology analysis and an ambient air quality analysis for each regulated air pollutant in which the emissions exceed the regulated PSD threshold.

The specific sub-pollutants that are subject to this analyses are: Particulate matter less than 10 microns in diameter, or PM10; particulate matter less than 2.5 microns in diameter, or PM2.5; nitrogen oxides, or NOx; volatile organic compounds, VOCs; sulfur dioxide and carbon monoxide. The Best Available Control Technology analysis is required to ensure that Entergy Traceview will incorporate the best practical air pollution control devices, techniques and/or emission limitations to minimize the emission of each listed pollutant.

Upon completing this analysis and submitting it to MDEQ for review, MDEQ has determined the following as bad for the combined cycle combustion turbine: For PM10 and PM2.5, the application of good combustion practices and the sole usage of low sulfur pipeline grade natural gas; for nitrogen oxides, the usage of a selective catalytic

reduction control device, and a limitation on air emissions to no more than two parts per million; for carbon monoxide, the usage of oxidation catalyst control device and a limitation on air emissions to no more than two parts per million; for sulfur dioxide, the sole usage of verified pipeline grade natural gas; and for volatile organic compounds, the application of good combustion practices and a limitation on air emissions to no more than 1.5 parts per million.

The ambient air quality -- excuse me. The ambient air quality analysis is also required to demonstrate that the allowable emission increases from Entergy Traceview will not cause or contribute to air pollution that ultimately violates either an EPA established national ambient air quality standard or any other applicable emission limitation over the current baseline concentration for this area. Such a complex demonstration, which accounts for the existing air quality and the average meter -- meteorological conditions is accomplished through dispersion modeling. With consideration to existing air quality, please

note that at present, the existing ambient air quality for Madison County, which is where this facility will be located, and as part of the Jackson metropolitan statistical area, is considered entertainment for all national standards by EPA. For this proposed project, the following pollutants were evaluated in the ambient air quality analysis: PM10, PM2.5, nitrogen dioxide, sulfur dioxide and ground level ozone, which is a -- which is the overall of volatile organic compounds and nitrogen -- nitrogen oxides.

As MDEQ is conscious of the concerns regarding the contributions that emissions from Entergy Traceview will potentially have to existing air quality, this analysis was thoroughly scrutinized by MDEQ air modeling staff. As such, the proposed facility's impacts from their modeled emissions and the estimates of the secondary formation of certain pollutants were found to be compliant with all applicable standards, PSD increments and significant impact levels.

After a comprehensive review and consideration of the information presented in

the application and the ambient air quality analysis modeling, MDEQ has concluded that by adhering to the emission limitations, operational restrictions, and compliance assurance mechanisms develop -- developed within the draft permit, the proposed facility can comply with all applicable Mississippi and federal environmental laws, regulations, and air quality standards.

Now, before we begin the comment portion of the hearing, I want to share a few important guidelines and instructions to ensure we hear from as many people as possible and maintain a respectful environment.

MDEQ is committed to providing a space where all participants can express their views without disruption. Therefore, we ask that you all refrain from booing, cheering or interrupting a commenter during their remarks -- remarks. Also applause, vocal reactions and any other demonstrations, whether in support or opposition of the proposed project, should be only made during the intermittent periods between commenters.

Each speaker is asked to convey their

comments in a concise manner as best they can, so that everyone who wishes to speak has an opportunity to do so. Please come to the podium before presenting your comment. If you are physically impaired and cannot walk to the podium, please let us know and we will bring a microphone to you.

This public hearing is being transcribed by a court reporter so that the proceedings can be archived for the public record -- in addition, we have -- excuse me -- therefore, we ask that you speak -- please speak clearly into the microphone so that your comments can be properly archived and interpreted.

If you are presenting pre-prepared comments, we ask that you please submit them upon completion of your presentation to ensure the transcript is accurate. Before sharing any comment, please state your name. If you represent an organization, please share its name as well. In lieu of presenting your comment at the podium, you may still submit written comments to enter into the public record located at the registration table as you were coming in, or comment cards and opinions.

Upon completing your written comment, please submit it to MDEQ staff and it will be formally archived as part of this record.

We appreciate your consideration, your cooperation and your professionalism in this matter. Your respect for these guidelines helps ensure a fair, orderly and productive public hearing for everyone.

We will now call individuals to comment in the following order. First, those individuals that indicated yes on the registration cards; second, those individuals that indicated undecided; and then we will open the floor up just in general for anyone that may want to speak for the first time or, I guess, have a second go at it, so to speak.

At this time, I will present the yes -- I will -- I will mention the yeses. I will apologize on the front end. If I get your name wrong, I mean no harm by it. So please bear with me. Kelsey Matthews?

MS. MATHEWS: Hello. My name is Kelsey Mathews. I'm a member here at this church, a Jackson State Ph.D. candidate for -- in the Department of Environmental Science and a

research assistant at the Community Noise Lab, which is an environmental organization located here in downtown Jackson.

And the question I have is that the proposed location is in close proximity to AWS, the landfill, and other surrounding industrial facilities and my alma mater, Tougaloo College. So how will environmental exposure data be incorporated into the State's risk assessment process, and how will the data be made transparent and accessible to the public?

MR. WHITLOCK: So as part of a -- for such a project such as this, a PSD permitting action, all relevant sources that are nearby, including the landfill, AWS, are evaluated as part of the existing air quality. So all of those -- all of the emissions that are emitted from such sources go into our ambient air quality analysis. So when we say that their -- so when we say that the emission limitations that the facility must meet to comply with all federal and state regulations, that takes into part the emissions from others. Okay.

MS. MATHEWS: Thank you.

MR. WHITLOCK: Aaron Hill.

MR. HILL: Good evening. My name is Aaron Hill, Director of Capital Projects for Entergy Mississippi. Thank you to the Mississippi Department of Environmental Quality, the Environmental Quality Permitting Board and the members of the public for your opportunity -- for the opportunity to speak regarding the draft air permit for the Traceview Advanced Power Station.

The Traceview Advanced Power Station has been developed to support the reliability and stability of the region's electric system, while meeting all applicable state and federal environmental requirements. The facility will utilize modern, high efficient natural gas combined cycle technology, support -- supported by Best Available Control Technology, consistent with the draft permit.

In addition to the required environmental controls, the project incorporates several community-focused design elements intended to minimize offsite impacts. These include maintaining natural vegetative buffers around the site, oriented major equipment to reduce visibility and sound propagation, implementing

a closed loop cooling design to reduce water usage, utilizing an air cooled condenser to significantly reduce water demand and applying a fully shielded lighting system to prevent light spill beyond the property boundary. Independent studies confirmed that operational noise will remain below local ordinance thresholds at nearby residences. These measures reflect our commitment to being a responsible neighbor, while ensuring the facility operates in compliance with all air quality standards, monitoring requirements and environmental obligations set forth by MDEQ. The Entergy Mississippi Traceview Advanced Power Station is designed to operate safely, reliably and responsibly to power the lives of our customers.

Thank you for your time and consideration.

MR. WHITLOCK: Ms. Yolanda Daniel.

MS. DANIEL: Good evening. My name is Yolanda Daniel. I represent Environmental Advocates Mississippi. We are here asking the Board to deny -- ultimately, those making the decision to deny the permit for Entergy Traceview -- Entergy Mississippi Traceview.

There's important information not considered in the permit, which could impact compliance with federal and state law. If the Board does not deny the permit tonight -- which I'm now assuming you won't make a decision tonight, right? This is just discussion -- we would like a hearing before any final decision is made. And that hearing, a public hearing, before any decision is made.

Environmental Advocates Mississippi, EAMS, I'll call it for the remainder of my comments, together with Better Data Center Project previously submitted research and comments to MDEQ. And in that, we saw that the scope of what was considered was not complete based on the application.

I'll just go through a few things that we identified as part of that review. The permit does not analyze a key pollutant. This plant will use a large ammonia system as part of its pollutants control, but the permit has no ammonia limit. It requires no ammonia monitoring. It does not include ammonia in the air pollution modeling. And as you are aware, ammonia is important because it reacts in the

air with other pollutants to form fine particulate matter, PM2.5, which is known to cause harm to cardiovascular and respiratory health. Without controlling and measuring ammonia, the Board cannot know the true air quality and health impacts of this plan. And I mentioned PM2.5, but sometimes it actually can be smaller than that, as you are aware as well, which crosses the blood brain barrier, which is even more impactful to mortality, and I'll get into mortality estimates as we go through my comments.

The permit does not consider cumulative impacts. And I know we're not here tonight to discuss a landfill. We're not here tonight to discuss data centers. But you can't consider this plant without considering the cumulative impact, especially when those developments are 12 steps across the street from residences, from places of faith, including this one, from daycare centers and early childhood schools and other businesses.

The permit does not count pollution from diesel generation -- diesel generators being built by two nearby data centers. One just

directly across the street, just yards away. Together, those data center generators alone would produce more nitrogen pollution than this proposed natural gas power plant.

The MDEQ Board is aware of those projects, but their pollutant impacts are not counted in this permit's air quality analysis. Without understanding these combined impacts, the Board cannot know whether the permit has protections in place for our community and air quality, and we just want to be able to breathe good air.

The permit -- excuse me. Our air quality is already unsafe, and this plant would make that worse. Air monitors already show pollution levels at or above the federal safety limits. This plant alone would add about 10 percent more pollution to the county's air. This could potentially violate federal standards and grounds for denying the permit. The impact of data centers supported by this proposed plan would add even more pollution, ensuring levels well above safety limits. The health and air of our communities cannot afford a new source.

And I will say, as we go through this

process, we are happy to provide data and research, independently assessed research. And so we'd be happy to -- if you find something different from us to -- about you or Entergy, find something different from us, we expect the same reciprocal analysis, independent, peer-reviewed research to compare.

No. 3, the pollution will harm our health. Independent studies from Harvard researcher Michael Cork says that this plant could cause anywhere from 18 to 32 million in health damage every year. That includes one to two early deaths every year. Over 30 years, that could add up to 62 early deaths. And the studies also found about 240 missed school days and 89 missed work days every year, or on an annual basis. These are not mere numbers. These are families, these are community members, these are friends, these are loved ones that the future of this city, this county and this state depend on. And we should give them every opportunity to not only live, but to thrive.

Pollution dispersion versus removal. And I won't spend much time here, but this is just to say, at one point we understood that there

were going to be taller stacks, and the EPA and GO -- GOA in 2011, and EPA found that taller stacks does not limit the impact locally of pollutants being dispersed at a location. Rather, it actually disperses that pollution over a longer period of -- a longer area, rather. EPA guidance and regulations explicitly limit giving regulatory credit for dispersion from stack heights and require that stack heights beyond generally good engineering practices not be used to relax emission limits. And why that matters, again, we're talking about particulate matter and the impacts that that would have on community health.

And then finally, I want to introduce a research that was conducted for a population of approximately 68.5 million elders, Medicare recipients. And in that study, it found that -- and researchers analyzed 16 years of health data from 68.5 million Medicare enrollees. This is the most extensive study of PM2.5 and the link to health disparities and mortality. They focused on PM2.5, and the study showed a causal link between longterm 2.5 exposure and higher mortality. We have that

study. We're happy to pass that on to you for your further evaluation.

We won't make many comments about water. We will say -- but we're currently researching. But we will say that given current examples such as meta -- meta and the poisoning of groundwater and water systems has already shown, and Amazon in Oregon and meta has shown the propensity, even if it is a closed loop system, that it will in waterways, poison waterway systems.

And then finally, I will say that this is -- I know I said finally twice, right, but -- but it's a lot. It's a lot.

I will say that this is new technology that is being introduced. And I'm saying new because there has been no independent peer-review research that aligns with the comments that this is safe. This technology has primarily been installed internationally, such as in Asia and a few other places, and there are a few installations in the United States. I know that Entergy is planning to install this technology in the Greenville plant, if I'm not mistaken. But, again, we are

not guinea pigs, and we don't want our lives to be impacted by something that does not already show independent, peer-review research regarding its safety.

Finally, I just want to give condolences to our community members in Gloster who are currently suffering from air pollution. They're not -- they didn't have the opportunity to do the prework that we are doing to prevent poisoning of communities. We just hope working with MDEQ, we prevent anything that is as catastrophic as what Gloster is experiencing today. Different industry, same pollutants.

So we just ask that you think about us just as approximately a month ago, the six funerals on a Friday of Gloster residents that they -- their families had. And we appreciate you having this public comment. Thank you.

(Applause)

MR. WHITLOCK: Ms. Erin Shirley Orey.

MS. OREY: Good evening. You were close. It's Erin Shirley Orey.

MR. WHITLOCK: So sorry.

MS. OREY: That's okay. That's okay. Thank you for allowing us to have this -- these

public comments tonight.

I just really have a question that I'm not sure you can answer, but I would like for it to be on record. What does it mean to live near a natural gas power plant? This plant will burn natural gas around the clock year round. That comes with real pollution, that kind that affects breathing and health. Three things this plant will put out into our air. First, smog-forming pollution. That's what causes the chest tightness and coughing you feel on a bad air day. It's worse for kids and older adults and anyone with asthma.

Second, fine soot particles so small they get into your bloodstream, such as the part of Particulate Matter 2.5. Those are linked to more asthma attacks, more heart attacks and shorter lifespans. The closer you live to the source, the more of it you breathe every single day.

Thirdly, ammonia. The plant plans to store 40,000 gallons of pressurized ammonia on site. Small leaks could happen, but a bigger accidental release next to homes is a real risk. It's not a hypothetical one.

The permit's own modeling shows this project already crosses the pollution thresholds that are supposed to trigger extra scrutiny. That should be a red flag in itself, not a box to check.

There's no air quality monitor that I am aware of in this county. The numbers that were used to judge the background pollution come from a monitor that's in a different county, not from this area.

Does MDEQ consider the existing landfill near the proposed site? And I think you mentioned that it did. Will MDEQ evaluate the cumulative impacts of the natural gas plant, the landfill, the data center?

So tonight, I'm asking MDEQ to deny the permit and at least do these three things: Study the actual health impact on families living closest to the plant, not just the area-wide average; put a real air monitor here in this community before even considering approving the permit; require Entergy to share its emergency plan for the ammonia tank with this community, not just with regulators; and respond to everyone's concerns in -- everyone's

concerns in writing before any final decision is made. Because we are not just data points on a map, we are the people who live, worship and work near the proposed site.

And as a -- just a rhetorical question for those -- and this is for the record, for those who will be making the final decision about this, would you want to live near this plant? Thank you.

(Applause)

MR. WHITLOCK: Mr. Jerry Young.

MR. YOUNG: I thank you very much. I am Jerry Young. That's J-E-R-R-Y. You got it. And I'm privileged to be the pastor of New Hope Baptist Church here in Jackson, here in the community, live in this community as well. And I would -- and I'm not as versed as other persons are with all of the technology and the technical terms. Unfortunately, I spent most of my life studying theology, and -- and so I don't understand a lot about the technical stuff. But here is my concern.

It appears to me that what is happening here is that there are some persons who apparently have decided that profits ought to

be placed above people. That's my real concern. Because with the facility being in that close proximity to our neighborhood, it would seem to suggest to me that someone has concluded that in the final analysis, making the money is a lot more important than preserving the health of the community.

And lastly, I've been in this community now for nearly 50 years. I have pastored New Hope Baptist Church for 46 years. I've lived in the community. I have five grandchildren; three of them have asthma. Everything that I have read says to me that however we do this, if it's this close to the community, the adverse effects are absolutely catastrophic. I would ask, along with those persons who were so eloquent, that we would raise the question, what is it that ultimately God requires? And I believe the answer comes back, whatever you do, He says, do justly, and that's justly, and that's justice for all of our communities, love, mercy and walk humbly with God. I say that because I am utterly concerned that there is no way that this facility can be this close to the community without adversely affecting

the community.

FEMALE SPEAKER: Right. Amen, amen.

(Applause)

MR. WHITLOCK: Ms. Traci Hayes.

DR. HAYES: Good evening, Traci Hayes, Doctor of Public Health.

So I would have to say that I've enjoyed hearing all the statistics and the information put forth by the previous speakers. So I'm going to keep mine short.

I would like to say that I would like to go on record asking you to deny this permit for this Entergy Traceview Power Station.

For the last 13 years that I've been in this area, I -- we seem to be fighting with MDEQ so much. You have tried to put landfills over here. You've got one, maybe two. We've fought the landfills. We are now fighting this -- we tried to fight the data center, but the information was so low key and not transparent at all that we just saw work going on. I thought it was a supermarket. Would have been nice to be a supermarket, but it was this data center hidden behind the trees. So there was limited transparency, limited

communications, which is key in public health. You have to share with the community. And MDEQ after reading your material about what your role is, you're only suggesting, you should do a more effective job suggesting locations that are not in the midst of the community. These -- these operations are always placed where people are least likely to fight, with the resources not to fight.

Again, one of the speakers asked, would they want it in their neighborhood? The research shows that the individuals that are putting this in place do not live within 50 to 60 miles of these plants. And I'm really surprised that Madison okayed this, but it's probably because it's so close to these communities over here in Jackson, their operations. It's a few neighborhoods that are going to be affected in the Ridgeland community.

But again, my question is, we're standing here; we're asking you to deny it. How likely is this to be denied off the request of individuals with limited power, with just a mere vote of putting officials in? And if we

do have that capacity to make you think otherwise, what is the alternative? Give Entergy an alternative. We can't pack up and move our homes. We can't pack up and relocate the church. But they have resources. They charge us abundantly enough for everything that they do. Have them locate and be inconvenienced. We see this across the nation that people are losing their homes. No one wants it anywhere. And if they don't want it and they're suffering from it, it means that the people that have a decision have a due diligence to discover and investigate more.

So please take into consideration what these young ladies have suggested and what Reverend Young has proposed, and just find us an alternative. This is a neighborhood that contributes significantly to the tax base of this community. Why do you always want to destroy it? You want to put the most dangerous things in some of your high paying tax areas, in places where we -- we don't have anywhere else to run and go to. Ask Entergy to relocate. It's fair. They can do it. Thank you.

(Applause)

MR. WHITLOCK: Reverend Bridges.

REVEREND BRIDGES: Thank you. I am Arthur Bridges. I'm actually the pastor of this church, and I would be remiss if I did not make some comments.

My -- as Pastor Young has said, my -- my greatest concern, of course, even just the nature of my calling is souls. Souls translates to people. And so my -- my greatest concern has to be people. Much -- many of my questions have already been asked. I won't necessarily repeat those. But one of the ones that I will repeat is that I see that most of the air quality compliance is regionally. And again, I would ask that there be an air quality testing that would be near this property. We have service here every Sunday. We have Bible study on Wednesdays. We have special events where there is a large concentration of people here all the time. We have seniors. We have people who have asthma. We have people with all types of health conditions that I must consider as their pastor. I must show some concern for them as well. And so I ask that

you do the same thing, and I don't want us to do anything irresponsible.

I'm not against progress, but I -- as it was stated by Pastor Young, I don't believe in putting progress or profit over people. And so I do ask you to consider people and to take the right measures, not just consider regional data, but very localized data.

And also, again, as it has been said, considering the cumulative effect, there's already a landfill, there's a data center, now a power plant. My church -- well, not my church, but God's church, all of God's churches here, Greater Pearlie Grove, New Hope, Anderson. There are a number of churches within mile radiuses of this location, this proposed location. So I just ask that you would consider those very localized effects instead of only looking regionally to determine what the effects would be. Thank you.

(Applause)

MR. WHITLOCK: This next group -- excuse me. This next group of names are those that marked undecided. If you wish to speak after I call your name, feel free to come to the mic.

If not, you can just kind of say no or just stay where you are. So your choice, no pressure.

Mr. Curtis Harris?

MR. HARRIS: Everything -- everything they've said, pretty much --

MR. WHITLOCK: Hold up.

MR. HARRIS: Good afternoon. Curtis Harris. Everything has pretty much been said what I was going to comment on, so I don't have anything. I'm sorry. Thank you.

MR. WHITLOCK: Ms. Tamika Gilbert?

(No response)

MR. WHITLOCK: Ms. Sheila Stewart?

MS. STEWART: No.

MR. WHITLOCK: Okay. Mr. Samuel? I'm not sure of your last name. I'm sorry.

MR. ASHMORE: Ashmore.

MR. WHITLOCK: Ashmore.

MR. ASHMORE: No.

MR. WHITLOCK: Okay. Ms. Teresa Blackmon.

MS. BLACKMON: Yes. I would like to speak.

My name is Teresa Blackmon, and I'm a member here of Greater Pearlie Grove. And just

you-all talking about what Entergy plans to do or would like to do, it has already kind of touched me to the point that -- breathing wise, just talking about it. I am an asthma baby. Correction, I became an asthma baby at the age of 45. I am now 66 years of age. I attend church as much as I can, but prior to three years ago, I was living in Southaven, Mississippi with my son, his wife and his children, my grandchildren, and they made a decision to move back this way to Ridgeland by way of Madison because of what was going on in Memphis, Tennessee, by way of Southaven, Mississippi.

And like all the speakers before me have stated, why? Why this area? Why, why and why? You got so much open land up 55 going north with abundance of trees when you're traveling from north to south, why couldn't the plant be designated that way? My personal feeling is it's all about convenience. It's all about not caring about the real people. And we are. Everybody that's in this room today are the real people.

It's hard to even breathe when you smell a

certain smell, whether it's a perfume, whether it's a smell of the waste management area. If I have to travel north to go to north Mississippi by way of Hazlehurst, through Byram and my windows are down, I have to literally pull my car over because I started expelling so terribly because of the smell.

In all my life of working, I've worked in a particular place, public service place, but you still have to deal with the elements of the building, whether it's fibers from the boxes, heat, cold, cough, muscles. The body is already being torn down as you age anyway. But the question is, why must we have to go through this unnecessary process that somebody else that doesn't even live in the area that is being spoken on in regards to this process, have to deal with it.

So let's please reconsider this proposal and take it somewhere else where people don't live. Our lives matter. Thank you.

(Applause)

MR. WHITLOCK: Mr. Larry Henderson.

MR. HENDERSON: I wasn't going to say anything. I just came to listen, too. My name

is Larry Henderson. I'm also a minister, and I believe in life for people. And I live in the area, actually on the Ridgeland side. And I fought with the landfills. I was in meetings about the power center, about Amazon. And as someone before stated, it's about the money. There were a lot of people on both sides, Madison and Hinds County that said, I didn't want it. But when you have a county that said, We're bringing in money and we're bringing in jobs, but where we locate it is where people have already been affected over the years by the landfills. Cancers, deaths, asthmas. I mean, I'm at an age where I'm on the side going down, but I have grandchildren. I've got children. And right now throughout this nation, you see everybody -- it was on the news about Southaven. I've got a daughter that lives up in DeSoto County. They're talking about the plant there. The noises that are generated, the pollution, whether it's noise pollution or air pollution, and it's -- it's like -- as they say, it's about the money. And people are disposable. Certain people are disposable. People that may not have resources

to fight. And I'm not just talking black. It's people that are disposable. If you don't have the means, then you can be disposed of because you're not able to relocate. You're not able to maybe go to Maine or Montana somewhere where you don't have as many people. But when you are here and you've invested and you're looking to say, I want this for my posterity. I want my grandchildren to one day, maybe if they want to, to live in an area where they're not worried about their health, they're not worried about the things that are going on. I mean, I'm not against progress now because we need jobs, we need businesses. But then is it one that will benefit the people that are living there?

So I -- I just concur with everyone else, you know, that the plant not be installed. Thank you.

MR. WHITLOCK: Ms. Delores Vaughn.

MS. VAUGHN: No.

MR. WHITLOCK: Mr. Calvin, Sr.

MR. CALVIN, SR.: No.

MR. WHITLOCK: Okay. Nkeba Bell?

COURT REPORTER: Could you say that name

one more time?

MR. WHITLOCK: Nkeba Bell.

COURT REPORTER: Thank you.

MS. BELL: No.

MR. WHITLOCK: Okay. Regina Jones?

MS. JONES: No.

MR. WHITLOCK: Luella Love.

MS. LOVE: No.

MR. WHITLOCK: Last name Byrd? I may have to come back to that one. I'm sorry.

Natalie Speaks.

MS. SPEAKS: Natalie Speaks.

MR. WHITLOCK: Okay.

MS. SPEAKS: Thank you so much. I am here to request that the Board deny the permit applied by for Entergy for the gas plant.

I just have a couple of questions and, obviously, they will be rhetorical, but I do want to state them for the record.

How much is a life worth? What amount of money could be exchanged for a human life? Because even if what you have heard some of the experts state, people who are well versed in this technology and scientific words that I don't know, even if 90 percent of what they

have said is wrong and only 10 percent is right, how much? How much is that life worth? We've heard -- we've heard talk tonight about the health implications and how people with cardiovascular issues and liver and kidney issues, how they are negatively affected, people who have asthma, how the children and the elderly are even more affected. How much is their life worth?

And when we're talking about understanding the role of MDEQ -- and I will say, I am a novice. This is not my area of expertise. But I read the pamphlet that you guys provided tonight, and it appears to me that MDEQ does not control anything except for the permitting, because when you have asked questions about the data centers you ask about -- you've asked what people are typically concerned about, which is energy cost, water usage, pollution, all of those things. None of that is controlled by MDEQ. The only thing that MDEQ controls is whether or not this permit is issued. And based on that, I feel that MDEQ -- because there are no regulatory measures -- there's nothing that MDEQ can do and come back and say,

Oh, we made a mistake. We messed up. We see that people are dying, that children are being born stillborn, that there is a higher maternity morbidity rate. We've -- which all of these things are documented in other states where data centers and gas power plants are actually located. And because you can't control that, then right now, use the control and deny this permit.

My area of expertise is real estate. You have heard several neighbors stand before you tonight and indicate that they're concerned because they don't have the ability to just pick up and move. The lady before me, she said that her and her family moved here from Southaven because of what was happening in Memphis. Three years later, it is happening here. Again, how -- how are people supposed to live if you are depriving them of their equity? Because no one wants to live next -- next to a data center or across the street from a gas power plant. What do they do?

It continues to mimic the strategic disinvestment that the city of Jackson has faced for decades. Lots of people have talked

about how this area is being negatively impacted by the landfill, by all of these things, by the data center, and now a potential gas power plant. Its strategic disinvestment, and the citizens of Jackson are the ones who are going to bear the brunt of it.

So, again, I am asking that you deny the permit for Entergy of Mississippi, for this Tracepoint (sic), for the gas power plant. Thank you.

(Applause)

MR. WHITLOCK: We're going to try this one again. Middle name starts with an E. Last name begins with a B.

MR. BRYANT: It ain't John Bryant, is it?

MR. WHITLOCK: What did you say?

MR. BRYANT: John Bryant?

MR. WHITLOCK: Could be. That is your handwriting?

MR. BRYANT: Yes, sir, I want my own say in there, so... I came in kind of late.

Good evening. My name is John Bryant. I live at 273 Rouser Road. That's a hop, skip and a jump from here. This is my church, the Greater Pearlie Grove. Y'all talking about the

gas and stuff. I'm a retired fireman. I have a degree in a hazmat technician and Tech 2. Y'all talking about the gases that's going to be gave out. Gases can run from 2.3 to 5.2 or higher. This plant, like I said, would be almost in my backyard. Look at Rouser Road and look where you're going to build it. I invite you and you. Your name? I forgot your name.

MR. WHITLOCK: Jaricus.

MR. BRYANT: I invite y'all to come out and have a cup of coffee with me. From the landfill, I live about three quarters of a mile from it. Y'all -- y'all going to grant the gas company to run a plant. I live at 273 Rouser Road, again. Pastor Hughes tried to get natural gas on Livingston Road on the east side. Y'all got a tent, a 8-inch main running. They said it wasn't feasible to tack on to it, but it's feasible to tack on to it for the plant coming in. Do you know how much propane gas costs? I get gas from Lampton-Love. Summer fill up is July. It's still $3.25 a gallon. I got a 500-gallon tank. They can grant gas for a plant, but they can't grant gas for natural living people. How can you justify

that?

This center I hear that they putting in, when y'all came -- when they came and put out a sign, there was a little sign that was stuck on the side of the ditch. And when we found out about it, it was too late. It was too late. We had a meeting up in Ridgeland at the brand new city hall. It was too late. The mind was already made up. The people that showed up, if it wasn't for Patricia Sanders and a couple more people that was interested and the Livingston Road Homeowners Association, we showed up in full force.

So take in consideration. Let us live. Let our church stay in balance. Moving into the plant, our churches start shifting. They start shifting. Walk around the church here. It will start shifting. Trucks bringing in and out, coming in and out. We got a landfill, not in my backyard, almost in my front yard. If you ride down through there -- years ago, I had horses. I belong to the Mississippi (indiscernible) Association, me and my wife. We used to ride down through there. There was a little creek that crossed the road. There

used to be snakes and fishes swimming. I used to take -- I used to take my pistol down there. I used to shoot the snakes. I let my wife shoot them. But now, ain't nothing there from the runoff. And the smell from that landfill, they got pipes burning out at night, which are burning off the methane. But it's still rough.

I invite y'all two to come out one morning when the wind is right to have a cup of coffee with me on my patio. It would make you nauseated and sick. Thank you.

(Applause)

MR. WHITLOCK: Sabir.

MR. ABDUL-HAQQ: You got it. Sabir Abdul-Haqq. That's it. Say that five times fast.

MR. WHITLOCK: I'm sorry. Could you spell your last name?

MR. ABDUL-HAQQ: Sure. Okay. See, when I'm doing print, I start going into cursive. You should see my signature. A-B-D-U-L, hyphen, H-A-Q-Q. You should see me sign my kids' progress report.

I'm here to comment on the State's proposed regulatory approach to incoming data

center applications, as outlined in MDEQ's informational guidance.

Now, I understand we're not talking directly about data -- about data centers, but the Agency's current stance, to me, seems like a masterclass in bureaucratic hand washing, treating massive industrial infrastructure as if it were a local grocery store. Let's look at the gaping disconnect between MDEQ's relaxed timeline and federal reality. The pamphlet that we were given notes that aggrieved citizens have a mere 30 days to appeal an environmental permit after it's issued. Yet if we look at the broader regulatory landscape, specifically the Federal Energy Regulatory Commission, also known as FERC, the federal government is moving in lightning speed to reform how these massive, large loads integrate into the grid. FERC has already established strict compressed federal timelines this year to force grid operators to justify the immense infrastructure impacts driven by data centers.

Speaking of infrastructure impacts, how can MDEQ sit here, claim we can't evaluate environmental impacts in a vacuum while

companies like Kinder Morgan and Southern Company are actively pushing the massive Mississippi Crossing, also known as MSX and the South System Expansion 4, also known as SSE4, pipeline projects through our state. Let's be completely transparent. These two interconnected projects represent nearly 500 miles of massive 36 and 42-inch methane gas pipelines, gouging straight through Mississippi counties like Washington, Humphreys, Holmes, Attala, Leake, Neshoba, Newton, Lauderdale and Clarke. It is seat belting across the entire state. The developers claim this $5.2 billion pipeline buildout is absolutely necessary. But independent financial analyses show the low growth is highly speculative and driven almost entirely by the AI data center. MDEQ states in its literature that we have no jurisdiction over electricity rates against Mississippians who will be left holding the bag, paying higher utility bills to subsidize underused fossil fuel infrastructure when the AI bubble bursts. Meanwhile, these projects are actively threatening 18 different river watersheds, risking localized gas leaks and forcing massive

new or expanded compressor stations into our communities that will spike the very air pollution like nitrous oxide that MDQ -- MDEQ claims to monitor. You cannot separate the environmental degradation of the MSX and SSE4 pipelines from the data centers they are built to feed. Giving the public a tiny 30-day window to digest this massive, overlapping ecological threats, while federal dockets are sprinting forward is a regulatory failure.

Finally, we must address the leadership overseeing these critical decisions. It's hard to swallow MDEQ's assurances of rigorous, independent environmental protection when you have newly -- newly chaired Billy Vandiver sits at the helm of the Mississippi Commission on Environmental Quality. One has to marvel at the efficiency of appointing someone with deep ties to Claw Forestry Services. I'm sure it's a complete and total coincidence that an industry heavily reliant on massive timber yields and operational sawmills is being overseen by a man positioned to perfectly watch those exact sectors thrive under rapid industrial development. It certainly gives a

whole new meaning to sustainable forestry when the regulatory environment is cleared as efficiently as a clear cut white pine plantation. We need a unified, proactive regulatory framework that aligns with the fast movement federal documents, the FERC docs -- dockets, not defensive pamphlets telling Mississippians to call a hotline after the pipeline -- the pipelines are buried and the damage is already done.

MDEQ must extend public notice periods and conduct comprehensive cumulative impact studies regarding the MSX, SSE4 buildout before rubber stamping these permits. Thank you.

MR. WHITLOCK: I have two names, Charles Rogers and Angela Greer.

MR. ROGERS: Charles Rogers.

MR. WHITLOCK: Can you come to the mic?

MR. ROGERS: I really don't think I have much of anything to add to what's already been said here tonight. But as I was sitting there thinking about passing on the opportunity to say something, one thought did come to my mind. As we all know, that plant has already been built, which I understand costs in excess of $1

billion. Those pipelines have already been laid, you know. So we either believe that it's the process to go spend $1 billion without the permits being already approved? I mean -- so -- so obviously, whoever put that plant out there is expecting their permits to be rubber stamped, you know. And from my life experiences, we are all kidding ourselves if we think that that won't be done. That's all I wanted to add. Thank you.

(Applause)

MR. WHITLOCK: I didn't want to pass by it. I guess we'll go with Ms. Angela Greer's opportunity if she --

MR. ROGERS: It's my spouse.

MR. WHITLOCK: Oh, okay.

MR. ROGERS: She's supposed to be coming.

MR. WHITLOCK: Okay. Montina Clay?

MS. CLAY: Good afternoon. My name is Montina Clay. I'm a resident of Ward 2, the City of Jackson, which is where the proposed power plant is going to be located. And I just ask that you deny the permit based on everything that you've heard and all the effects of the city. And I think the citizens

of Jackson are willing to work with Entergy to find another location that would be better suited for all parties involved.

(Applause)

MR. WHITLOCK: Mr. Michael Davis?

MR. DAVIS: I think everything has been said.

MR. WHITLOCK: And another Michael.

MICHAEL: No.

MR. WHITLOCK: Okay. Anthony Brown?

MR. BROWN: No.

MR. WHITLOCK: Mr. Jerry Christer?

MR. CHRISTLER: Christler. No.

MR. WHITLOCK: Ms. Linda Ganter?

MS. GANTER: No. Everything has been said. Just don't let it fall on deaf ears.

MR. WHITLOCK: That is everyone who has either -- that has denoted undecided. We still will allow an opportunity for anyone that wishes to come and present comments, even if you did say no on your registration card. So I'll pause to allow that opportunity right now.

DR. HAYES: So my question --

MR. WHITLOCK: Just come back to the mic.

COURT REPORTER: Say your name again,

please.

MR. WHITLOCK: Say your name again.

DR. HAYES: Dr. Hayes. So my original question when I stepped up here first was what is the option. So are you all prepared to give Entergy an alternative? Because like the gentleman mentioned, because there is such an investment already in place, it's highly likely you would just leave it unaddressed. So did you have a contingency? Is there a Plan B once you hear that the community did not want it, the -- the vote was there to deny it. Do you have an alternative for them? And then what is the scalability look like or sustainability for this program? So the data center is over there, and they need this power plant. We don't want it. We're asking you to deny it. What do they do?

MR. WHITLOCK: So to answer your first question about alternative locations, that is not up to us. We base our decisions based on zoning as it comes to us. So that particular land was zoned for Entergy Traceview's, usage. If the permit board decides to deny that permit, they can't be up there. It's then up

to them to decide where else they would like to go. So -- but as far as DEQ suggesting or promoting alternative locations, that's not --

DR. HAYES: You don't do that.

MR. WHITLOCK: Yeah, we don't do that.

DR. HAYES: Okay.

MR. WHITLOCK: I'm sorry. I didn't want to -- I wanted to answer your second question.

So I guess to your second question about sustainability of the data center. If the power plant goes away, that's out of our hands as well. They built the plant under the understanding of, I guess, the current grid sustainability, I guess the current grid allocations, whatever the wording may be for that. If Entergy Traceview does not get approved, I guess it's really kind of up to them to figure it out. Thank you.

DR. HAYES: They have to figure it out.

Okay. Since I'm up here, can I throw a third one in? So what type of monitoring or reporting do you require? Are you all auditing them every quarter, every -- you know, twice a year, once a year? What do they have to turn in so that we can see that things are not

killing us?

MR. BLAND: So if you look in the draft permit that went to public notice, you will see emission limits that Entergy is required to comply with if the permit is issued. They will also have monitoring and record keeping associated with those limits that they are required to comply with. And then they have to report that to us. Typically, you have that on a semiannual basis. So every six months is what you typically see for a PSD and as well as a Title V facility. And so that is all a part of our purview. And that's what we put in our permits. We put emission limits to control the amount of emissions. And then we put monitoring record keeping to demonstrate compliance with those limits as well as reporting to the agency. And we also have a group that is our environmental compliance and enforcement group that actually goes out and inspects those facilities to make sure that they are complying with the permitted limits in their facility.

DR. HAYES: Okay.

MR. BLAND: And there are consequences for

any facility in Mississippi that is permitted by MDEQ for violating those limits.

DR. HAYES: What are the consequences? Would they ever be shut down? So if they don't follow the rules, would you shut them down?

MR. BLAND: That is a very loaded question. If a -- yeah, that's a very loaded question.

DR. HAYES: So I'll just close by saying, before you make a decision, I concur with all the others requests. Please notify us. Put it on the news everywhere. Share it. Make sure it's broadly disseminated and not posted in little signs, like the gentleman said, on the side of the curb or whatever, you know. Do as much as you can to keep us informed because you're the government agency. They're the for profit. So we understand their motivation; yours should be different. Thank you.

MS. DANIEL: My question is regarding --

MR. WHITLOCK: Say your name again, I'm sorry.

MS. DANIEL: Yolanda Daniel, EMS. And another thing -- this is not a loaded question. It's a question of fact. And I'm asking this

from the position of monitoring. Is MDEQ fully funded?

MR. WHITLOCK: Unfortunately, that is a loaded question. And that's something that, just to be candid, is outside of the purview of me and the staff here presenting before you.

MS. DANIEL: So and the reason why I ask it is because Mississippi has essentially -- and the United States has essentially brought on a new industry. Data centers -- excuse me -- hyperscale data centers and the power generation facilities that support them is new. The level of pollution is new and different because of the impacts on water and air. And so how do -- does an organization like MDEQ scale for the scaling of risk imposed on the public? So that is one question.

MR. WHITLOCK: So, much like any other industry within Mississippi, they still have to go -- undergo the same level of permitting that we're doing -- as we're proposing today, based on the same level of analysis that we look at as far as the ambient air monitors that we operate, Mississippi operates, and then develop draft permits, see if they get issued. Maybe

they do; maybe they don't. If they do, then that triggers a whole nother level of scrutiny in regards to, as Mr. Blaine mentioned, compliance assurance, coming out and inspecting them, whether it be scheduled, unscheduled. Making them do certain testing, making them do continuous emissions testing. So not just testing for a moment in time, actually doing continuous what's coming out of the stack and submitting that data to us for review and for public distribution should anybody want it. So to answer your question of -- I guess that kind of relates to adaptability. It's -- I guess I essentially have to answer that we still followed the same model we've always done.

MS. DANIEL: Okay. And -- and I promise, I'm not saying that to put you on the spot, because I know, you know, ultimately you are the sole decision makers in the work. But what I'm discerning from your comment is if we're doing the same thing and the level of risk has been elevated, then we have a gap regarding our monitoring processes because the level of exposure and risk for communities is much more heightened before the introduction of

hyperscale and the -- the new -- like even this new technology that Entergy Mississippi is attempting to bring in, it's new, right? So, you know, we should level up. And it really is in support of MDEQ that -- that you all should be able to scale in your ability to monitor based on the level of risk that has been imposed on the community. So that's the first thing.

The second thing I will say, and I know location is not necessarily an issue, but I do want to say for the public during zoning board hearings in the city of Ridgeland, in which the zoning board for the City of Ridgeland voted no against the continued use permit for Entergy Mississippi, they voted no, and three days later, the Board of Aldermen came out and said they rode by there, and they approved it. But anyway, nonetheless, during that process, they did mention -- it was mentioned by a city official and by Entergy officials that other sites were evaluated. But this one on West County Line Road was the least expensive, and that they were building this facility for residential ratepayers, that they were not

building it for data centers. Now, we've had some very hard migration to, Well, we're building it for data centers, too, but they're going to pay their fair share. So the level of trust that the community can have, not only based on what they've committed to, but even what's in this permit, deserves a level of scrutiny that I don't think has been there. And we have to really consider the impacts. Again, you know, you have a Medicare study of 68 million people. I think that is very representative of the risks that are going to be introduced to the community. And so we have to understand that that is a very localized risk for this community that has to be considered when considering this -- this permit.

So anyway, I thank you both for, you know, what you do, but let us not all be tricked.

I will also say, last thing, that Entergy has the ability to change location, and it's not the community's job to figure out where else Entergy can go. So I won't even get into reimbursement rates, you know, for Mississippi, is the highest. We pay the highest. Two

percentage points higher than any other state under Entergy's footprint. But I will say that that is not our job to figure out where Entergy needs to safely place their -- their, you know, plant facilities. So thank you again for holding this conference.

(Applause)

MR. WHITLOCK: Anyone else?

MS. MATHEWS: Kelsey Matthews again. As a student environmental scientist in the area, this community is very personal to me. I live here, I worship here, and I go to school in the area. And it's very interesting hearing all of the presenters before me.

So my question for you guys today is I've heard about locations for the ambient air quality monitors that you have. Do you know how far away that is from this area that you're proposing to build the power plant?

MR. WHITLOCK: Your question is about the location of our ambient air monitors?

MS. MATHEWS: Yes.

MR. WHITLOCK: So we have two in the Jackson metro area. One is right by the Veterans Memorial Stadium, just south of it,

and the other one is located at Hinds Community College in Raymond.

MS. MATHEWS: So that's a good bit of ways from here. So does MDEQ have any plans to implement any more ambient air quality near these industries?

MR. WHITLOCK: No.

MS. MATHEWS: For the air quality measurements that you report on, are they daily? Are they weekly? Monthly? What are the emissions reports? Like the time period for, like, the VOC emissions, is it reported for monthly?

MR. WHITLOCK: So the information that is submitted by the facility, is that what you're -- I want to just make sure you're -- are you talking about the data that we collect?

MS. MATHEWS: Yes.

MR. WHITLOCK: The data that MDEQ collects is continuous. So it is by the second. Maybe, I think -- I could be wrong -- I believe it's by every 15-second increments. Some data is collected on a daily basis. Some data is collected one in six. That's based on EPA's schedule, not necessarily our schedule. But

the majority of the data that we collect is continuous, 365, 15-second increments. And then we basically compile that data and then submit it to the EPA for then public distribution through their platform. I'm hoping I'm answering your question.

MS. MATHEWS: You did. Thank you.

MR. WHITLOCK: Okay.

MS. SPEAKS: Natalie Speaks again. And my industry is real estate, so I'm a novice. But I think I understood you saying that it would be up to Entergy to conduct their own -- their own testing, and they would do that once every six months, and then they would report the testing or the findings from -- that they conduct to MDEQ. And then also that you guys would go in and investigate the facilities. Is that -- did I understand that correctly?

MR. WHITLOCK: So I will say -- so the level, and I apologize for maybe not the lack of detail in the specific. The amount of stack testing that they have to do, where they have to evaluate what comes out of the stack is variable. I don't know as to what specific timeframe it is. There is a level of

continuous emissions that are being read as it comes out the stack live; that data is provided to us along with other information on a semiannual basis, once every six months. So we do get that data, we review it, we evaluate it, we call into question any discrepancies. So that's, I guess as far as reporting to us, in addition to some other reports that come outside of that six-month window.

MS. SPEAKS: Okay. And, again, if we were talking price per square foot, I could -- I could -- I could speak intelligently about that. So essentially -- and here's my concern. My concern is self-testing and self-reporting. And -- and the reason that that's a concern is because -- I don't -- I don't know how familiar you guys are with Gloster, but essentially every time they fail, they just write a check and keep on going. People are still dying. And so what Ms. Daniel outlined is concern for the integration of additional staff or resources required for this onboarding of new technology, new emissions testing, all of that thing -- all of that that's -- that's associated with this. And if there's not

resources available, if there's not staff, if there's not people who will be able to do testing on behalf of MDEQ, which is supposed to be here to protect the citizens, we can count on Entergy just writing a check for every violation, which is exactly what they're doing in Gloster. Every time there's a violation, they write a check and they keep -- they keep -- they keep killing people. They -- they keep poisoning the community and people are still passing. And so I know there's not a number that is sufficient enough, but how much is a human life worth? And if we've got to rely on corporations who are beholden to their shareholders, if we've got to rely on their protection, and we can't count on MDEQ, what do we have? Because -- because your role is to approve or deny the permit. After that, it's intermittent testing. It is review of data submitted by the corporation. And in the interim, it's people passing. It's people with increased visits to the hospital. It's increased stillborn births. Like, that's the data that we've seen from other states. And if you are the only guardrail between our health

and the grave, what -- that's my concern. And I believe that's the concern of the community as well. Because, again, this is all you guys do. You're only responsible for the permitting. And when we have attended other meetings where residents have spoken out about different issues and Southaven and all of these things, essentially what -- I'm a novice. I don't know. Essentially, what I've seen is that the Board will say, Well, this is compliant, so we're going to approve it. Based on what Entergy submitted, they're going to be compliant, so we're going to approve it. But who protects us? Who protects the people? Who protects the equity? I've been to Southaven, Mississippi. They can't even give their homes away. Literally, they can't -- like people have dropped the price 30-, 40-, $50,000. That's money that they will never get back. And they still can't get rid of their houses. Who protects the community? Who protects -- who protects us from corporations who don't care about us? Who protects minority communities who are overly impacted by -- by data centers, by gas power plants, who protects

us? It's strategic. Because Entergy -- y'all just heard Ms. Daniel. I remember that Ridgeland board meeting. I didn't attend it, but I remember her calling and saying, You're not going to believe me. They had other sites where people would not be directly impacted, and they chose this one on purpose. So who protects us? Thank you.

(Applause)

MR. WHITLOCK: Anyone else?

MS. OREY: Dr. Erin Shirley Orey again. I just wanted to verify. So when you talked about the air quality monitors, are there any in Madison County?

MR. WHITLOCK: No, ma'am.

MS. OREY: Okay. I just wanted that to be on the record, everybody, that there's not one in Madison County. Then the closest one would be near the stadium in Jackson, correct? Okay. Thank you.

REVEREND BRIDGES: So piggybacking off of that and what Kelsey said, you said there's no plans to put one in this local area, but is there a process by which we being in this community could petition you to put a monitor

in this area if we have a concern?

MALE SPEAKER: That looks like a no.

MR. WHITLOCK: I don't want to -- I don't want to say you can -- you all well -- you're well within your right to petition a request for an ambient air monitor within this location. But as far as us accepting that and actually doing that, that's a very loaded and nuanced process. The location of monitors are really -- it's a really in-depth, complex process as to how you put a monitor where you do it for the purposes we do it. We need -- the monitors, the two monitors I mentioned, both at Raymond and south of Veterans Memorial Stadium were based -- were put there based on all the criteria that EPA lays out as far as where you put a monitor. You put it in the most populous area, i.e. Jackson. You put it where it's clear of interferences such as trees, houses, industry. It's really -- it's a long laundry list of things you have to go through as far as putting it there for the purposes we use it. Just to be honest, like, there's a lot that goes in to running that station for -- for -- to demonstrate ambient

air quality is where it is. So I guess to say, I don't want to say you can't petition. But I don't want to, I guess, kind of minimize the level of effort it takes into putting one there and actually doing what it's supposed to do. So yeah.

REVEREND BRIDGES: So then one last question. If we were to hire a third party to put air quality monitors in this area, is that data submissible to you? Would it be considered by you if we were to give you that information?

MR. WHITLOCK: Yes. I can -- I would say potentially, yes. It's a lot -- there's a lot of detail that goes into how you set it up, how you operate it, but potentially --

REVEREND BRIDGES: Well, we would use one reputable. I mean, it would be someone who, of course, knew what they were doing.

MR. WHITLOCK: Right.

REVEREND BRIDGES: If we had to find it, could we submit them then to MDEQ and you consider the information?

MR. WHITLOCK: Potentially, yes. I will say yes to that.

REVEREND BRIDGES: Okay. Thank you.
MR. WHITLOCK: Because the devil's in the detail.
MS. CLAY: Montina Clay, again. I just want to ask a question. Based on what you just said, there is no written procedure of how we could get a monitor in this area if we wanted a monitor? And there are no guidelines or requirements? You just arbitrarily decide how you put the monitors and where you put them, et cetera?
MR. WHITLOCK: No, that's incorrect.
MS. CLAY: Okay. So what is the procedure?
MR. WHITLOCK: So the -- so the monitors that MDEQ dispatches, operates, are based on EPA rules and guidelines. So we have to get their approval on where we put them. They do dictate where they are as far as how far away from the street, how much is around it, everything.
MS. CLAY: So we can request one put in this area and let them tell us where it could be based on if we requested and it's not appropriately put there, that they suggest

somewhere else or something?

MR. WHITLOCK: So you can make the request. I guess that's a different story as far as your request going to EPA. I'm not -- I can't -- I can't outline how that would go, to be honest. If you're -- if you're requesting EPA as to getting approval or guidance on how to put a monitor from them, I'm sorry, ma'am.

MS. CLAY: So you guys, the state level, the two monitors you have are the only monitors we can have in this area?

MR. WHITLOCK: That'll be operated by DEQ? At this moment, yes.

MS. CLAY: Who decides that, and how do you decide it?

MR. WHITLOCK: So I paused because I didn't want to get the word -- I want to get the words right and, I guess, to the point. That's, I guess -- it's a mixture of a lot of things, mostly manpower, resources, everything. Because like I said, to run -- those two monitors were put there for a reason to get EPA approval. Also, to run that station entails a level of resources and manpower that is substantial. So I guess that's where I just

don't -- it's not as easy as -- I guess, I don't want to --

MS. CLAY: So is somebody -- your superior make that decision, or do you make that decision?

MR. WHITLOCK: My superior.

MS. CLAY: Okay. So just tell us to request it from your superior, and we will.

MR. WHITLOCK: You can -- by all means, you can.

MS. DANIEL: Can you give us a policy or the guidelines?

MR. WHITLOCK: I can't give you that, not at this moment. But I can. Just say your name, ma'am.

MS. CUTLEY: She kind of answered my question. Passion Cutley. You said the EPA decides? Does the EPA decide that it should be near this location that we're discussing today? What are their requirements for a monitor to be placed in there? You said they make the decisions. So what have they decided about data centers and plants of the nature that we're talking about?

MR. WHITLOCK: So nothing.

MS. CUTLEY: Nothing.

MR. WHITLOCK: So, yeah, I guess to me -- I guess to provide a little bit of clarity on an ambient air monitor, an ambient air monitor that we -- MDEQ runs, that any other state agency, Alabama, Georgia will run. It's ambient. So it's to reflect, I guess, natural conditions.

To put it out here would be considered a little -- kind of in the weeds of maybe too industrial, too wooded, too residential. An ambient air monitor is traditionally supposed to be in kind of an open area that's not used by anything. It's to really give a -- a clear outline of what air quality is, if that makes sense.

MS. CUTLEY: It does make sense.

MR. WHITLOCK: Okay.

MS. CUTLEY: So is there anything that's available to -- that you monitor that disrupts -- disrupts the air quality? So if you're monitoring how clean the air is, what is -- what do you use to determine how bad the area is? So if it was something here, what would be -- what would you put here? What

could we have here that would monitor how really bad it is if what you have the ambiance, if I'm pronouncing the word correctly, shows how clean it is? So what shows how bad it is?

MR. WHITLOCK: Just to be honest, a monitor. I guess if you're looking for just real time air quality data, that would be a monitor, but that's something that is outside of the scope of what the DEQ does, just to put in a air monitor, just tell you what it is here and now for this particular area. Also, our primary role is to see what ambient air quality is. So there are avenues where communities and individuals have put out monitors to tell what air quality is for their particular place, but that's kind of something they do independent of us. So I guess that's what I want to clarify between the two of, I guess, the different roles.

MS. CUTLEY: Okay. And I guess -- I guess I'm going to repeat what everybody else said. I live in the area. I live right down the street. I do wake up like the gentleman say, it's come on the -- on a Sunday morning, come outside, you can barely stand out there. It

smells horrible.

So just adding to these issues and health issues, I live around a community where a lot of elderly people have been in this area longer than I have. I've only been here five -- six years. These individuals have been here -- my neighbors have been in their community for over 30-plus years. And I don't think they plan on moving and going anywhere. And just to -- and there -- some of them can -- on monitors and they have breathing equipment that they have just to -- just to function on a daily basis. And then to have this particular issue that we're constantly facing. And I kind of pushed it off, didn't really see how serious this is. I had no idea that people are -- I've heard about people putting these plants in minority neighborhoods. I've seen it on television, but to actually be living it in real time, and the fact that you guys have the power to determine my life scares me. You determine my future, you determine my daughter's future. You determine my neighbor's future by a stroke of a pen. And what's scary to me is you don't have any parameters for this new way of living, this

new data center, this new -- this new way of we using AI and all of these things. That's why we need it. You don't have any parameters for we're doing things a little different. I always say, you know, Mississippi is like Jackson -- like Mayberry. You know, we still -- you call, you have to call. Everything is sometimes paper based. You know, we don't do technology like in some places. You go down to the tag place, they're still doing things kind of the same way they've always done it. So for you to say that your policies are the same for a center that is brand new is scary. It's scary to know that you're saying, I checked these boxes based on what we've always done. You're checking boxes based on what you did 20 years ago. You're checking boxes based on what you did five years ago. You're checking boxes based on what you did ten years ago to say they're meeting these qualities, they're meeting these guidelines, they're meeting these parameters. But that's not the case because things are changing, but your procedures are the same. So that makes me scared that you have the power to dictate my

life based on old information. And it's -- it's -- and like that person said, you wouldn't bring your own family and live down the street. I'm less than three minutes away. You wouldn't buy a house in that neighborhood either knowing that that center is across the street. And you probably wouldn't come to this church on this -- on a Sunday -- on every Sunday morning, because that place is across the street.

Just think about that. You have the power in your hands. And the fact that you are putting people's lives in danger based on checking off boxes. Just think about that.

(Applause)

MR. WHITLOCK: Anyone else? Okay?

MS. MATHEWS: Kelsey Mathews back again. So is it accurate to say that there are no current or proposed programs where MDEQ can directly monitor emissions from this proposed facility, or the cumulative emissions from other industries in the area? And a follow up for that is, what is MDEQ's plan for monitoring other proposed data centers to come in the area? And this is just -- it could be a -- a rhetorical question because, as we all know,

there are proposed data centers to come in Brandon and Clinton, another in Jackson. And based on that trend, there could be potentially more to come. So will MDEQ only -- for all of these industries to come in this area? Will they only have those two air quality monitors that are next to each other to report for air quality emissions for this area?

MR. WHITLOCK: So short answer, I guess those two monitors are standard. So I guess to kind of answer that question, maybe, first.

If your question -- I apologize if I'm misinterpreting it. If your question is in regard to monitoring emissions from facilities, that is not something DEQ does. That is, I guess, as someone has -- as someone has noted as a concern, facilities self monitor and self-report such emissions. We do not have the capacity nor the resources to do independent monitoring at facilities. So with that, I guess -- I believe that's part of your question. And so I'm going to stop to see if I answered them or if I missed something.

MS. MATHEWS: That's all.

MR. WHITLOCK: Okay. I'm sorry. Anyone

else? Okay.

MS. SPEAKS: Only because she got up for a third time. So that's -- Natalie Speaks again. Okay. So I'm a novice again, so forgive me. But it -- based on what you guys have said, No. 1, ambient -- the ambient air monitors are set up to monitor what undisturbed areas look like. They're not set up to monitor what areas like what we're talking about right here would actually -- how they would be impacted. Correct?

MR. WHITLOCK: (Nonverbal response.)

MS. SPEAKS: Okay. And then also, it appears based on the questions from Pastor Bridges and others, that it is a whole lot easier to get a gas permit passed than it is to get a monitor for the air quality, correct? It's rhetorical. Just FYI.

MR. WHITLOCK: The floor is still open, I guess. Yes, ma'am.

MS. RICHARDSON: Hello. My name's Jan Richardson. I live in Ridgeland about a mile and a half away. I also have science training. I have a Ph.D. From what I hear, the control for every permit -- permit is the same. So

whether someone is building in Clinton or Brandon, they'll be using these same two air monitors. So you're always going to have -- whatever is proposed to build, you're using the very same data from these two monitors. Is that true?

MR. WHITLOCK: That's very loaded. So I think that -- yeah, that's very loaded.

MALE SPEAKER: It's not loaded.

MR. WHITLOCK: Well, it kind of is because, I guess, ambient air -- ambient air quality data comes into play for such sources as Entergy Traceview, which is a PSD source, which is the highest level of permitting -- permitting possible given the amount that it can -- the amount of emissions it can potentially release. Any facilities that do less than that do not necessarily have to base looking at air quality as such as Entergy Traceview had to. There are certain regulatory thresholds that trigger having to bring in air quality into the equation as far as your evaluation.

So I guess to answer your question, the two -- the two monitors that we have are used

to evaluate ambient air quality for the Jackson metropolitan area, which includes Hinds, Madison and Rankin County and Copiah County. But as far as everyone having to look at that, that is not -- that is not true. Depending on how much you emit or how much you restrict your emissions, you do not have to automatically look at air quality data.

MS. RICHARDSON: So it's fair to say that every data center that's being built will use this?

MR. WHITLOCK: No, no. Because not every data center is the same. Some are bigger than others. We've seen some bigger, some smaller.

MS. RICHARDSON: So -- so some won't have to look at air quality at all?

MR. WHITLOCK: Correct. Some are willing to restrict their emissions below certain thresholds; some aren't.

MS. RICHARDSON: Okay. And then we'll only know whether they're successful at restricting below those emissions after they start functioning and self-report?

MR. WHITLOCK: Correct.

MS. RICHARDSON: Okay. Thank you.

MR. WHITLOCK: You're welcome.

MR. FINLEY: Willis Finley, I'm a real estate broker in the area, and I also attend this church. I was not planning to speak. However, the context of this information that's been given has been quite concerning.

So basically -- and let me ask you this question, because I could tell from the context of your expressions that an air monitor would probably be very expensive, probably millions of dollars, correct? And the chances of having another one in this area are slim to none, correct? Just be honest. Yes, it's true.

MR. WHITLOCK: Yes.

MR. FINLEY: Okay. So, yes. Can we say yes? We need to look in the back and see if we can say yes?

MR. WHITLOCK: As far as DEQ operating one, highly unlikely, yes.

MR. FINLEY: Okay. Thank you for being honest. And the chances of another entity, say this church, say this area, say this subdivision, say this county of being able to monitor the air quality and DEQ or EPA accept that information are slim to none also.

MR. WHITLOCK: I would not say that.

MR. FINLEY: Okay. What type of avenue -- would they have to build their own air quality testing apparatus for that to happen? And would it have to be monitored and governed by EPA for it to be acceptable? And we're looking at millions of dollars, if that's so, correct?

MR. WHITLOCK: Yeah. Well, first you have to be able to monitor, yes. But then there are certain criteria you have to meet for that data to be considered defensible.

MR. FINLEY: So all unlikely that a small church, small subdivision, small part of the county could afford to do that. Highly unlikely. Let's just say that. I answered that for myself.

So I want you to realize that -- well, my next question before I say this is when, not if -- when something goes wrong and air quality does not meet the standards that EPA demands in their tests, what do you do?

MR. WHITLOCK: So if air quality gets to that -- air quality gets to that degree, then that triggers a whole nother level of scrutiny as far as permitting.

MR. FINLEY: It's done. The center is built. So it's done. It's reducing the air quality. It's not acceptable. What does MDEQ do?

MR. WHITLOCK: Exactly that. That opens up a whole new level of permitting. So -- no, no, no, I get -- well, sir, let me finish.

So in such a -- in such an occasion where you get into non-attainment, that triggers a whole nother level of permitting and a whole nother set of rules to where it is -- it is the goal of MDEQ to get back into compliance with those standards. So in -- whether there are actionable permits by existing facilities, those are subject to be reopened for the express purpose of getting back into compliance.

MR. FINLEY: Okay. So you would pull a permit if they were outside of compliance?

MR. WHITLOCK: Reopen.

MR. FINLEY: Okay. Reopen means that that particular facility would not be able to operate any longer?

MR. WHITLOCK: That means every emission limit that's in there must be reevaluated and

might have to be more stringent.

MR. FINLEY: Okay. So can you give me an example of when that has happened in our area?

MR. WHITLOCK: There is none, because this --

MR. FINLEY: For any facility.

MR. WHITLOCK: For any for the state? The state has --

MR. FINLEY: I'm asking --

MR. WHITLOCK: No. There --

MR. FINLEY: -- for any facility. And we have manufacturing all over this facility. I want to know, has that happened before that you looked at a particular permit and said, You're out of compliance. Here's how you're going to get in compliance within this amount of time. If not, you have to stop production.

MR. WHITLOCK: So, yes, sir, I guess now you're --

MR. FINLEY: I'm asking about your job.

MR. WHITLOCK: So now you're -- you're -- now going between two separate topics. Noncompliance --

MR. FINLEY: I'm asking you what happens when things go wrong. I'm asking what happens.

What do you guys do when compliance fails?

MR. WHITLOCK: So those are two separate -- those are two separate topics. Compliance where if a facility fails an emission limit, there is certain triggers where the agency's environmental enforcement and compliance division actually will institute an enforcement action against the facility that violates an emission limit. That's -- and you mentioned about noncompliance from a facility. Noncompliance as far as air quality is a much more broad thing that it talks about permitting. So you can have a facility violate an emission limit in their permit, but have air quality still in attainment. So that's where we're going -- you're going to -- we're going -- that's two separate topics.

MR. FINLEY: So let me be more clear. So you are thinking about permitting a particular industry, a particular building, a particular commercial establishment, let me say that, industrial. And you will have certain guidelines in place that they have to meet. And they will be tested. They will have to procure these additional samples and things

that you require so often.

MR. WHITLOCK: Correct.

MR. FINLEY: Okay. And you will monitor those.

MR. WHITLOCK: Correct.

MR. FINLEY: Okay. What happens when they exceed your standards, the limits that you've set?

MR. WHITLOCK: That triggers enforcement.

MR. FINLEY: Such as? How do you enforce? What do you do? And what have you done in the past for not just this facility that's coming -- are you telling me that every facility that you've given permits for are within compliance? Please don't do that.

MR. WHITLOCK: Well, wait. I'm not going to do that because I'm going to say that's not the purview of the air division. Air division does not handle compliance and enforcement. That's a separate division.

MR. FINLEY: Okay.

MR. WHITLOCK: So I will not --

MR. FINLEY: But it falls in with the same overall --

MR. WHITLOCK: No.

MR. FINLEY: I'm saying that it's within Department of Environmental Quality --

MR. WHITLOCK: Department of Environmental Quality is made up of several divisions.

MR. FINLEY: I get that. But once you find that something is wrong, how -- how do you stop it?

MR. WHITLOCK: That's -- I guess that's a -- for another, that is for the environmental -- ECED for sure.

MR. FINLEY: So you -- do you see why I'm standing here in front of you? Because once you pass this, it is very difficult to stop the horse from running. It's very difficult to pull this back once you say yes. It is very difficult once these -- and I say once -- once these -- these thresholds are not met, what happens then? Once you say yes, how do you -- because a fine doesn't fix it. Okay. We -- you have a particular timestamp that you have to get. What about all the damage it causes and has continued to cause and will continue to cause? Like, are you -- can you sleep? And I know it may not be your decision, but it's part of the group that you work for. How do you

sleep at night knowing that this is what it's doing here? This is what it's doing there. Why won't it do the same thing here? I think your mom probably told you, don't run across the street, you can hit by a car, right? This is the same thing. We're running across the street right now, and you have the power to say, Child, don't do that. I'm going to hold you back. I'm going to take care of you.

Vote no. It's the only logical, reasonable thing that you can do because you don't have a way to stop the horse once you let it go. There's nothing that you can do that will limit. And I get what you're saying. Well, that's a different division. Here's what we're going to do. But it doesn't stop the horse. The horse continues to run. It continues to trample people. And from another analogy, the child gets hit walking across the street. And I see the confusion on your face. But I think you know where I'm going. This is not a good idea. It's not a good idea for this community. There's other freaking places for it -- excuse me, Pastor -- and it shouldn't be here. I get -- but, Hey, make it a playground

for birds, I don't care, but that cannot operate here. So thank you.

(Applause)

MR. WHITLOCK: So we're still open. If there -- if there is no one else who wishes to speak on the record, let me offer our thanks to you all for your time and your comments.

Public review and commenting on this proposed air permitting action are important elements; however, all concerns and issues presented here this evening or during this overall public comment period will be considered by MDEQ to ensure all relevant issues have been properly examined.

On careful review, MDEQ staff will develop response -- responses to all comments received during the overall public comment period.

Also as deemed necessary, MDEQ may modify conditions within the draft permit to clarify and/or reinfer -- reinforce -- excuse me -- certain aspects prior to our presentation of this collective information to the permit board for a final determination.

If presented to the permit board, the permit board will be provided with a copy of

the transcript that has been completed tonight, MDEQ's response to comments document, the draft permit and any other information relevant to the application for review and consideration prior to rendering a decision on this permitting action.

The permit board meets the second Tuesday of each month routinely. Therefore, the earliest this permitting action could be presented to the permanent board is scheduled -- is their scheduled meeting of August 11th, 2026. However, that is contingent upon our resolution of comments received, including responses to all said comments and any other remaining issues.

At this time, I will officially close this public hearing. I sincerely thank you all. I wish you-all a good night.

(Time Noted: 7:45 p.m.)

ORIGINAL: JARICUS WHITLOCK, P.E.

CERTIFICATE OF COURT REPORTER

I, Nikki L. Lloyd, Court Reporter and Notary Public, in and for the State of Mississippi, hereby certify that the foregoing contains a true and correct transcript of the public hearing, as taken by me in the aforementioned matter at the time and place heretofore stated, as taken by stenotype and later reduced to typewritten form under my supervision by means of computer-aided transcription.

I further certify that, to the best of my knowledge, I am not in the employ of or related to any party in this matter and have no interest, monetary or otherwise, in the final outcome of this matter.

Witness my signature and seal this the 3rd day of August, 2026.



NIKKI L. LLOYD, CCR #1870

My Commission Expires:
April 30, 2029

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APPENDIX E

Written Comments Received During the Public Hearing

Name: Kenyatta Gaval E-mail [redacted]

Comments? Air Quality Control

[redacted]

Jackson, MS

39213

Entergy Mississippi LLC, Madison County Advanced Power Station
Tuesday, July 14, 2026
5:30 pm – 8:30 pm
Greater Pearlie Grove Missionary Baptist Church
1640 West County Line Road, Jackson, MS 39213

Name: ~Ridgeland resident Jan Richardson E-mail: [redacted]

Comments?

In Louisiana the development of dangerous industries followed after energy plants were built which led to "Cancer Alley". Madison Co already has a surprisingly high rate of cancer. Has MDEQ investigated this? People around the nation are realizing the ~~Implore you~~ to dangers of gas powered plants. Please deny the permit + allow the public opportunity to learn more.

Entergy Mississippi LLC, Madison County Advanced Power Station
Tuesday, July 14, 2026
5:30 pm – 8:30 pm
Greater Pearlie Grove Missionary Baptist Church
1640 West County Line Road, Jackson, MS 39213

APPENDIX F

Updated Draft PSD Permit to Construct Air Emissions Equipment

STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT

AND PREVENTION OF SIGNIFICANT DETERIORATION (PSD) AUTHORITY

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Entergy Mississippi LLC, Traceview Advanced Power Station
1972 W County Line Road
Ridgeland, Mississippi
Madison County

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder and under authority granted by the Environmental Protection Agency under 40 CFR 52.01 and 52.21.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

_____

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued:_____ **Permit No.: 1720-00100**

89056 PER20250001

Draft/Proposed

SECTION 1. GENERAL CONDITIONS

1.1 This permit is for air pollution control purposes only.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D.)

1.2 Any activities not identified in the application are not authorized by this permit.

(Ref.: Miss. Code Ann. 49-17-29(1)(b))

1.3 The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(5).)

1.4 It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(6).)

1.5 The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).)

1.6 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(a).)

1.7 The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(b).)

1.8 The permit does not convey any property rights of any sort, or any exclusive privilege.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).)

1.9 The permittee shall furnish to the Department of Environmental Quality (DEQ) within a reasonable time any information the DEQ may request in writing to determine whether

cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(d).)

1.10 *Design and Construction Requirements:* The stationary source shall be designed and constructed so as to operate without causing a violation of any Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A(1)-(3).)

1.11 The necessary facilities shall be constructed to prevent any wastes or other products or substances to be placed in a location where they are likely to cause pollution of the air or waters of the State without the proper environmental permits.

(Ref.: Miss. Code Ann. 49-17-29(1) and (2))

1.12 *Fugitive Dust Emissions from Construction Activities:* The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A(4).)

1.13 *General Nuisances:* The permittee shall not cause, permit, or allow the emission of particles or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.

(a) The permittee shall not cause or permit the handling, transporting, or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become airborne.

(b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance to property other than that from which it originated or to violate any other provision of 11 Miss. Admin. Code Pt. 2, Ch. 1, the Commission may order such corrected in a way that all air and gases or air and gasborne material leaving the building or equipment are controlled or removed prior to discharge to the open air.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.C.)

1.14 *Right of Entry:* The permittee shall allow the Mississippi Department of Environmental Quality, Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives, upon presentation of credentials:

(a) To enter at reasonable times upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

(b) To have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air contaminants or waste waters, fuel, process material, or other material which affects or may affect emission of air contaminants from any source.

(Ref.: Miss. Code Ann. 49-17-21)

1.15 *Permit Modification or Revocation:* After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to, the following:

(a) Persistent violation of any of the terms or conditions of this permit;

(b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

(c) A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.C.)

1.16 *Public Record and Confidential Information:* Except for information determined to be confidential under the Mississippi Air and Water Pollution Control Law, all information obtained in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality, Office of Pollution Control.

(Ref.: Miss. Code Ann. 49-17-39)

1.17 *Permit Transfer:* This permit shall not be transferred except upon approval of the Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.16.B.)

1.18 *Severability:* The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(7).)

1.19 *Permit Expiration:* The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance, if construction is suspended for eighteen (18) months or more, or if construction is not completed within a reasonable time. The DEQ may extend the 18-month period upon a satisfactory showing that an extension is justified.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(1)., R. 2.5.C(4)., and R. 5.2.)

1.20 *Certification of Construction:* A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(3).)

1.21 *Beginning Operation:* After certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by 11 Miss. Admin. Code Pt. 2, R. 2.13.G.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(4).)

1.22 *Application for a Permit to Operate:* The application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(5).)

1.23 *Operating Under a Permit to Construct:* Upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(6).)

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, and shutdowns.

(a) Upsets (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) For an upset, the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through

properly signed contemporaneous operating logs or other relevant evidence the following:

(i) An upset occurred and that the source can identify the cause(s) of the upset;

(i) The source was at the time being properly operated;

(ii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;

(iii) That within five (5) working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other noncompliance, and the corrective actions taken and;

(iv) That as soon as practicable but no later than 24 hours of becoming aware of an upset that caused an immediate adverse impact to human health or the environment beyond the source boundary or caused a general nuisance to the public, the source provided notification to the Department.

(2) In any enforcement proceeding by the Commission, the source seeking to establish the occurrence of an upset has the burden of proof.

(3) This provision is in addition to any upset provision contained in any applicable requirement.

(4) These upset provisions apply only to enforcement actions by the Commission and are not intended to prohibit EPA or third party enforcement actions.

(b) Startups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) Startups and shutdowns are part of normal source operation. Emission limitations apply during startups and shutdowns unless source specific emission limitations or work practice standards for startups and shutdowns are defined by an applicable rule, regulation, or permit.

(2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for startups and shutdowns. Source specific emission limitations or work practice standards established for startups and shutdowns are subject to the requirements prescribed in 11 Miss. Admin. Code Pt. 2, R. 1.10.B(2)(a) through (e).

(3) Where an upset, as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.,occurs during startup or shutdown, see the upset requirements above.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

1.25 *General Duty:* All air emission equipment shall be operated as efficiently as possible to minimize emissions of air contaminants.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

1.26 *Compliance Testing:* Regarding compliance testing:

(a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.

(b) Compliance testing will be performed at the expense of the permittee.

(c) Each emission sampling and analysis report shall include but not be limited to the following:

(1) detailed description of testing procedures;

(2) sample calculation(s);

(3) results; and

(4) comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.6.B(3), (4), and (6).)

SECTION 2. EMISSION POINT DESCRIPTION

The permittee is authorized to construct and/or modify and operate, upon certification of construction, air emissions equipment, as described in the following table.

Emission Point	Facility ID	Description	Control Device
AA-001	TAPS-1A	Combustion Turbine (CT) with Supplementally fired Duct Burner (DB) Combine Cycle with HRSG and Steam Turbine Generator *4,983 MMBtu/hr Heat Input, 772,200 kW*	Selective Catalyst Reduction (SCR) System and Oxidation Catalyst
AA-002	TAPS-EMGEN	Diesel-Fired Emergency Standby Generator *22.09 MMBtu/hr Heat Input, 2,180 kW*	--
AA-003	TAPS-FWP	Diesel-Fired Firewater Pump *1.89 MMBtu/hr Heat Input, 235 kW*	--
AA-004	TAPS-NGDPHTR	Natural Gas-Fired Forced Draft Dewpoint Heater *5.01 MMBtu/hr Heat Input*	Ultra Low NOx Burners (ULNB)
AA-005	TAPS-NGFUG	Natural Gas Fugitive Emissions	Audible, Visible, and Olfactory (AVO) Monitoring
AA-006	TAPS-AMMFUG	Ammonia Fugitive Emissions	AVO Monitoring
AA-007	TAPS-DSLFUG	Diesel Fugitive Emissions	AVO Monitoring
AA-008	TAPS-LOVCT	Combustion Turbine Lube Oil Vent	Mist Eliminator
AA-009	TAPS-LOVST	Steam Turbine Lube Oil Vent	Mist Eliminator
AA-010	TAPS-TK1	Ultra Low Sulfur Diesel (ULSD) for Emergency Generator Fixed-Roof Storage Tank *4,150 Gallons Storage Capacity*	--
AA-011	TAPS-TK2	Ultra Low Sulfur Diesel (ULSD) for Fire Water Pump Fixed-Roof Storage Tank *500 Gallons Storage Capacity*	--
AA-012	TAPS-TK3	Natural Gas Condensate Storage Tank Fixed-Roof Storage Tank *400 Gallons Storage Capacity*	--

Emission Point	Facility ID	Description	Control Device
AA-013	TAPS-TK4	Natural Gas Condensate Storage Tank Fixed-Roof Storage Tank *400 Gallons Storage Capacity*	--

SECTION 3. EMISSION LIMITATIONS AND STANDARDS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
Facility-Wide	11 Miss. Admin. Code Pt. 2, R. 1.3.A	3.1	Opacity	≤ 40%
	11 Miss. Admin. Code Pt. 2, R. 1.3.B	3.2	Equivalent Opacity	≤ 40%
AA-001	40 CFR 60, Subpart KKKKa (Standards of Performance for Stationary Combustion Turbines) 40 CFR 60.4300a, 60.4305a(a), and 60.4315a, Subpart KKKKa	3.3	NO_x SO_2	NSPS Applicability
	40 CFR 60.4320a(a), (b)(3), and Table 1, Subpart KKKKa	3.4	NO_x	For all operations at ≥ 70% of base load, 5 ppmvd NO_x at 15% O_2 on a 4-operating-hour rolling average (0.018 lb NO_x/MMBtu heat input), or 0.12 lb NO_x/MWh-gross on a 30-operating-day average
				For all operations at < 70% of base load (part-load standard), 96 ppmvd NO_x at 15% O_2 on a 4-operating-hour rolling average (0.35 lb NO_x/MMBtu heat input)
	40 CFR 60.4330a(a)(2) and 60.4372a(b), Subpart KKKKa	3.5	SO_2	0.06 lbs SO_2/MMBtu heat input
	40 CFR 60.4333a(a), Subpart KKKKa	3.6	NO_x SO_2	General Duty to Minimize Emissions
	40 CFR 60, Subpart TTTTa (Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units) 40 CFR 60.5509a(a), Subpart TTTTa	3.7	CO_2	NSPS Applicability
	40 CFR 60.5520a(a) and Table 1, Subpart TTTTa	3.8		Emission Standard – 800 lb CO_2/MWh on a 12 operating-month average
	40 CFR 72.6, Subpart A	3.9	NOx	Acid Rain Applicability

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) (**PSD BACT Limit**)	3.10	$PM_{10}/PM_{2.5}$	**BACT**: Use low sulfur pipeline natural gas and good combustion practices to achieve 56.66 lb/hr (excluding startup, shutdown, and tuning) and 166.40 tpy (including startup, shutdown, and tuning)
		3.11	NO_x	**BACT**: 2.0 ppm at 15% O_2 (24-hour average based on 1-hour averages) not to exceed 40.59 lb/hr (excluding startup, shutdown, and tuning) and 220.96 tpy (including startup, shutdown, and tuning)
		3.12	CO	**BACT**: 2.0 ppm at 15% O_2 (24-hour average based on 1-hour averages) not to exceed 24.71 lb/hr (excluding startup, shutdown, and tuning) and 1196.58 tpy (including startup, shutdown, and tuning)
		3.13	VOC	**BACT**: 1.5 ppm at 15% O_2 (annual average) not to exceed 10.62 lb/hr (excluding startup, shutdown, and tuning) and 403.08 tpy (including startup, shutdown, and tuning)
		3.14	SO_2 H_2SO_4	**BACT**: Use pipeline-quality natural gas with sulfur content not exceeding 1.0 grains S/100 scf on a short term basis and not exceeding 0.5 grains S/100 scf on an annual-average basis to achieve 13.98 lb/hr of SO_2 (excluding startup, shutdown, and tuning) and 30.35 tpy of SO_2 (including startup, shutdown, and tuning)
		3.15	GHG CO_2e	**BACT**: 800 lbs CO_2/MWh gross (12-month rolling average) not to exceed 2,530,010 tpy CO_2e
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.16	Operating Restriction	**BACT**: Startup, Shutdown, and Tuning duration and operating parameters
		3.17	$PM/PM_{10}/PM_{2.5}$ $CO/NO_x/VOC/NH_3$ $SO_2/H_2SO_4/GHG$	Operational and contractual testing and tuning
	40 CFR 97, Subpart EEEEE	3.18	Group 2 Ozone Season NO_x	Cross-State Air Pollution Rule (CSAPR) Applicability
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.19	NH_3	$\leq$ 10 ppmvd NH_3 at 15% O_2 not to exceed 74.55 lb/hr (excluding startup, shutdown, and tuning) and $\leq$ 326.52 tpy (including startup, shutdown, and tuning)
AA-001 AA-002	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b)	3.20	Particulate Matter (Filterable and Condensable)	$E = 0.8808*I^{-0.1667}$

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
AA-002	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) (**PSD BACT Limit**)	3.21	$PM_{10}/PM_{2.5}$	**BACT**: 0.20 g PM/kWh not to exceed 0.96 lb/hr (3-hour average) and 0.05 tpy (12-month rolling total)
		3.22	NO_x	**BACT**: 6.40 g NO_X/kWh not to exceed 30.76 lb/hr (3-hour average) and 1.54 tpy (12-month rolling total)
		3.23	CO	**BACT**: 3.50 g CO/kWh not to exceed 16.82 lb/hr (3-hour average) and 0.84 tpy (12-month rolling total)
		3.24	VOC	**BACT**: 0.56 g VOC/kWh not to exceed 2.69 lb/hr (3-hour average) and 0.13 tpy (12-month rolling total)
		3.25	Certified Engine	**BACT**: Purchase a certified engine that meets the following NSPS Subpart IIII emission standards $PM_{10}/PM_{2.5}$ - 0.20 g PM/kWh NMHC + NO_x – 6.40 g NO_x/kWh CO – 3.50 g CO/kWh
		3.26	GHG CO_2e	**BACT**: Achieve GHG performance levels specified in Tables C-1 and C-2 of 40 CFR 98
AA-002 AA-003	40 CFR 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants from Reciprocating Internal Combustion Engines) 40 CFR 63.6585, 63.6590(a)(2)(iii) and (c)(1), Subpart ZZZZ	3.27	HAP	NESHAP Applicability
	40 CFR 60, Subpart IIII (Standards of Performance for Stationary compression Ignition Internal combustion Engines) 40 CFR 60.4200(a)(2)(i), Subpart IIII	3.28	NO_x CO	NSPS Applicability
AA-002 AA-003	40 CFR 60.4207(b), Subpart IIII, and 40 CFR 1090.305	3.29	Fuel Requirement	Diesel fuel standards: a) Max sulfur content of 15 ppm, and b) Minimum cetane index of 40 or a maximum aromatic content of 35 volume percent
	40 CFR 60.4209(a), Subpart IIII	3.30	Hours of Operation	Install a non-resettable hour meter

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
	40 CFR 60.4211(c), Subpart IIII	3.31	NO_x CO	Purchase a certified engine
	40 CFR 60.4211(f), Subpart IIII	3.32	Hours of Operation	Operating Requirements
AA-003	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) (**PSD BACT Limit**)	3.33	$PM_{10}/PM_{2.5}$	**BACT**: 0.20 g PM/kWh not to exceed 0.10 lb/hr (3-hour average) and <0.01 tpy (12-month rolling total)
		3.34	NO_x	**BACT**: 4.00 g NO_x/kWh not to exceed 2.07 lb/hr (3-hour average) and 0.10 tpy (12-month rolling total)
		3.35	CO	**BACT**: 3.50 g CO/kWh not to exceed 1.81 lb/hr (3-hour average) and 0.09 tpy (12-month rolling total)
		3.36	VOC	**BACT**: 0.11 g VOC/kWh not to exceed 0.06 lb/hr (3-hour average) and <0.01 tpy (12-month rolling total)
		3.37	Certified Engine	**BACT**: Purchase a certified engine that meets the following NSPS Subpart IIII emission standards $PM_{10}/PM_{2.5}$ - 0.20 g PM/kWh NMHC + NO_x – 4.00 g NO_x/kWh CO – 3.50 g CO/kWh
		3.38	GHG CO_2e	**BACT**: Achieve GHG performance levels specified in Tables C-1 and C-2 of 40 CFR 98
AA-003 AA-004	11 Miss. Admin. Code Pt. 2, R. 1.3D(1)(a)	3.39	Particulate Matter (Filterable and Condensable)	0.6 lbs/MMBtu
AA-004	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) (**PSD BACT Limit**)	3.40	$PM_{10}/PM_{2.5}$	**BACT**: 0.0048 lb PM/MMBtu not to exceed 0.02 lb/hr (3-hour average) and 0.11 tpy (12-month rolling total)
		3.41	NO_x	**BACT**: 0.011 lb NO_X/MMBtu not to exceed 0.06 lb/hr (3-hour average) and 0.24 tpy (12-month rolling total)
		3.42	CO	**BACT**: 0.037 lb CO/MMBtu not to exceed 0.19 lb/hr (3-hour average) and 0.81 tpy (12-month rolling total)
		3.43	VOC	**BACT**: 0.008 lb VOC/MMBtu not to exceed 0.04 lb/hr (3-hour average) and 0.18 tpy (12-month rolling total)

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
		3.44	$PM_{10}/PM_{2.5}$ NO_x CO VOC	**BACT**: Comply with the following emissions standards $PM_{10}/PM_{2.5}$ – 0.0048 lb PM/MMBtu NO_X – 0.011 lb NO_X/MMBtu CO – 0.037 lb CO/MMBtu VOC – 0.008 lb VOC/MMBtu
		3.45	GHG CO_2e	**BACT**: 2,572 tpy CO_2e
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1)	3.46	SO_2	4.8 lbs/MMBtu
AA-005 AA-006	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (**PSD BACT Limit**)	3.47	VOC NH_3	**BACT**: Employ an AVO Leak Detection program
AA-007			GHG CO_2e	
AA-008	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (**PSD BACT Limit**)	3.48	VOC	**BACT**: 0.01 tpy (12-month rolling total)
		3.49	$PM_{10}/PM_{2.5}$	**BACT**: 0.01 tpy (12-month rolling total)
AA-009	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (**PSD BACT Limit**)	3.50	VOC	**BACT**: 0.01 tpy (12-month rolling total)
		3.51	$PM_{10}/PM_{2.5}$	**BACT**: 0.01 tpy (12-month rolling total)
AA-010	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (**PSD BACT Limit**)	3.52	VOC	**BACT**: Fixed Roof Tank
AA-011	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (**PSD BACT Limit**)	3.53	VOC	**BACT**: Fixed Roof Tank
AA-012	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (**PSD BACT Limit**)	3.54	VOC	**BACT**: Fixed Roof Tank
AA-013	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (**PSD BACT Limit**)	3.55	VOC	**BACT**: Fixed Roof Tank

3.1 For the entire facility, except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial, or waste disposal process which exceeds

forty (40) percent opacity. Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.A.)

3.2 For the entire facility, except as otherwise or specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Condition 3.1. This shall not apply to vision obscuration caused by uncombined water droplets.

(Ref.: 11 Miss. Admi. Code Pt. 2, R. 1.3.B.)

3.3 For Emission Point AA-001, the permittee is subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Combustion Turbines, 40 CFR 60, Subpart KKKKa and the General Provisions, 40 CFR 60, Subpart A.

(Ref.: 40 CFR 60.4300a, 60.4305a(a), and 60.4315a Subpart KKKKa)

3.4 For Emission Point AA-001, the permittee shall comply with one of the following NO_x emissions standards:

(a) For all operations at ≥ 70% of base load, 5 ppmvd NO_x at 15% O_2 on a 4-operating-hour rolling average (0.018 lb NO_x/MMBtu heat input), or 0.12 lb NO_x/MWh-gross on a 30-operating day average; or

(b) For all operations at < 70% base load, 96 ppmvd NO_x at 15% O_2 on a 4-operating-hour rolling average (0.35 lb NO_x/MMBtu heat input).

(Ref.: 40 CFR 40 CFR 60.4320a(a), (b)(3), and Table 1, Subpart KKKKa)

3.5 For Emission Point AA-001, the permittee shall not burn any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.

(Ref.: 40 CFR 60.4330a(a)(2) and 60.4372a(b), Subpart KKKKa)

3.6 For Emission Point AA-001, the permittee shall operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

(Ref.: 40 CFR 60.4333a(a), Subpart KKKKa)

3.7 For Emission Point AA-001, the permittee is subject to and shall comply with all applicable requirements of the Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and

Reconstruction Stationary Combustion Turbine Electric Generating Units, 40 CFR Subpart TTTTa and the General Provisions, 40 CFR 60, Subpart A.

(Ref.: 40 CFR 60.5509a(a), Subpart TTTTa)

3.8 For Emission Point AA-001, the permittee shall comply with one of the following GHG emissions standards:

(a) 360 kg of CO_2 per MWh (800 lb CO_2/MWh) of gross energy output; or

(b) 370 kg of CO_2 per MWh (820 lb CO_2/MWh) of net energy output.

(Ref.: 40 CFR 60.5520a(a), Item 1 of Table 2, Subpart TTTTa)

3.9 For Emission Point AA-001, the permittee is subject to and shall comply with all applicable requirements of the Acid Rain Program as specified in 40 CFR Parts 72-78.

(Ref.: 40 CFR 72.6, Subpart A)

3.10 For Emission Point AA-001, the permittee shall not discharge or cause the discharge of Particulate Matter (PM_{10} and $PM_{2.5}$) in excess of 56.66 lb/hr (24-hour rolling average based on a one-hour average) and 166.40 tpy, (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.11 For Emission Point AA-001, the permittee shall not discharge or cause the discharge of Nitrogen Oxides (NO_x) in excess of 2.0 ppm corrected to 15 percent Oxygen (O_2), 40.59 lb/hr (excluding startup, shutdown, and tuning[1]) (24-hour rolling average based on a one-hour average), and 220.96 tpy (including startup, shutdown, and tuning) (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) **BACT Limit**)

3.12 For Emission Point AA-001, the permittee shall not discharge or cause the discharge of Carbon Monoxide (CO) in excess of 2.0 ppm corrected to 15 percent Oxygen (O_2), 24.71 lb/hr (excluding startup, shutdown, and tuning[1]), and 1,196.58 tpy (including startup, shutdown, and tuning) determined by a 24-hour rolling averaged based on a one-hour average.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) **BACT Limit**)

3.13 For Emission Point AA-001, the permittee shall not discharge or cause the discharge of Volatile Organic Compounds (VOC) in excess of 1.5 ppm corrected to 15 percent Oxygen (O_2), 10.62 lb/hr (excluding startup, shutdown, and tuning[1]) (24-hour rolling average based on a one-hour average), and 403.09 tpy (including startup, shutdown, and tuning) (12-month rolling total).

[1] Per Condition 3.16

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) **BACT Limit**)

3.14 For Emission Point AA-001, the permittee shall use pipeline-quality natural gas with sulfur content not exceeding 1.0 grains S/100 scf on a short term basis and not exceeding 0.5 grains S/100 scf on an annual-average basis to achieve 13.98 lb/hr of Sulfur Dioxide (SO_2) (24-hour rolling average based on a one-hour average) not to exceed 30.35 tpy of SO_2 (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) **BACT Limit**)

3.15 For Emission Point AA-001, on or after the date of initial startup, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions (CO_2(e)) in excess of 800 lbs of CO_2(e)/gross Mega Watt hour (MWh) on a 12-month rolling average not to exceed 2,530,010 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) **BACT Limit**)

3.16 For Emission Point AA-001, the permittee shall comply with the short-term limits listed in Conditions 3.10 through 3.14 at all times except during tunings, startups and shutdowns. Emissions during tuning, startups and shutdowns shall be included when determining compliance with the tons/year limitations.

The combustion turbines shall not be operated below 25% load (determined by the manufacturer) except during upsets, startups, and shutdowns. Startup is defined as the period beginning when the combustion turbine receives a “turbine start” signal and an initial flame detection signal is recorded in the plant’s control system and ending when the combustion turbine output reaches minimum sustainable load (50% load), which is typically the point at which the unit reaches the lean pre-mix operating mode. A startup shall not exceed 240 minutes in duration.

The shutdown period is defined as the period beginning when the combustion turbine receives a “turbine stop” command and the generator output drops below the minimum stable load (50% load) and ending when a flame detection signal is no longer recorded in the plant’s control system. A shutdown shall not exceed 60 minutes in duration.

Tuning events are required to ensure the safe, reliable steady-state operation of the combustion turbine and to minimize NO_x and CO emissions. Tuning events involve adjustments to the fuel distribution ratio and other parameters within the turbine combustion control system due to changes in the combustion environment of the turbine including, but not limited to, the following: ambient conditions, fuel composition changes, combustor hardware degradation, and combustor hardware replacement. Tuning events also include leak operability checks, islanding testing, and balancing. Tuning events shall be performed in accordance with the manufacturer’s recommendations. During the tuning event, all reasonable steps to minimize levels of emissions that exceed the limits of this permit shall be taken. Tuning events shall be limited to sixteen (16) hours or less per event.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). **BACT Limit**)

Draft/Proposed

3.17 For Emission Point AA-001, the permittee is allowed to conduct operational and contractual testing and tuning on the emission points to ensure the safe, efficient and reliable operation of the emission points. This shakedown period begins with initial startup and ends with initial performance testing or 180 days after startup, whichever comes sooner. The requirements in Section 3 of this permit shall apply following completion of the shake-down period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

3.18 For Emission Point AA-001, the permittee is subject to and shall comply with the applicable requirements of the Cross-State Air Pollution Rule (CSAPR) as set forth in 40 CFR 97, Subpart EEEEE Group 2 NO_x Ozone Season Trading Program.

(Ref.: 40 CFR 97, Subpart EEEEE)

3.19 For Emission Point AA-001, the permittee shall comply with the following SCR system Ammonia (NH_3) emission limit:

NH_3 emissions shall not exceed 10 ppmvd at 15 percent Oxygen (O_2) and shall not exceed 74.55 lb/hr (excluding startup, shutdown, and tuning[1]) (24-hour rolling average based on a one-hour average) and 326.52 tpy (including startup, shutdown, and tuning) (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

3.20 For Emission Points AA-001 and AA-002, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations greater than 10 million BTU per hour heat input but less than 10,000 million BTU per hour heat input shall not exceed an emission rate as determined by the relationship,

$E = 0.8808*I^{-0.1667}$,

where “E” is the emission rate in pounds per million Btu per hour heat input and “I” is the heat input in millions of BTU per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).)

3.21 For Emission Point AA-002, the permittee shall not discharge or cause the discharge of Particulate Matter (PM_{10} and $PM_{2.5}$) in excess of 0.96 lb/hr (3-hour average) and 0.05 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.22 For Emission Point AA-002, the permittee shall not discharge or cause the discharge of Nitrogen Oxides (NO_x) in excess of 30.76 lb/hr (3-hour average) and 1.54 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. And 40 CFR 52.21(j), **BACT Limit**)

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3.23 For Emission Point AA-002, the permittee shall not discharge or cause the discharge of Carbon Monoxide (CO) in excess of 16.82 lb/hr (3-hour average) and 0.84 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. And 40 CFR 52.21(j), **BACT Limit**)

3.24 For Emission Point AA-002, the permittee shall not discharge or cause the discharge of Volatile Organic Compounds (VOC) in excess of 2.69 lb/hr (3-hour average) and 0.13 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.25 For Emission Point AA-002, the permittee shall purchase a certified engine that is certified to comply with the following NSPS Subpart IIII emission standards.

(a) $PM_{10}/PM_{2.5}$ - 0.20 g PM/kWh

(b) NMHC + NO_x – 6.40 g NO_x/kWh

(c) CO – 3.50 g CO/kWh

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), and 40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Subpart IIII, and 40 CFR 1039 Appendix I, **BACT Limit**)

3.26 For Emission Point AA-002, on or after the date of initial startup, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions (CO_2(e)) in excess of 181 tpy (12-month rolling total) determined by the use of a USEPA-certified Tier 2 engine which meets the GHG performance levels specified in Tables C-1 and C-2 of 40 CFR 98.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. And 40 CFR 52.21(j), **BACT Limit**)

3.27 For Emission Points AA-002 and AA-003, which are in emergency use service, the permittee is subject to and shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) 40 CFR Part 63, Subpart ZZZZ. Emission Points AA-002 and AA-003 are new RICE located at an area source of HAPs. Therefore, compliance with 40 CFR Part 63, Subpart ZZZZ shall be achieved by meeting all applicable requirements of 40 CFR Part 60, Subpart IIII. No further requirements apply for such engines under NESHAP Subpart ZZZZ.

(40 CFR 63.6585, 40 CFR 63.6590(a)(2)(iii) and (c)(1), Subpart ZZZZ)

3.28 For Emission Points AA-002 and AA-003, the permittee is subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII.

(Ref.: 40 CFR 60.4200(a)(2)(i), Subpart IIII)

3.29 For Emission Points AA-002 and AA-003, the permittee shall use only diesel fuel that meets the following requirements for non-road diesel:

(a) A maximum sulfur content of 15 ppm, and

(b) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

(Ref.: 40 CFR 60.4207(b), Subpart IIII and 40 CFR 1090.305)

3.30 For Emission Points AA-002 and AA-003, the permittee shall install a non-resettable hour meter prior to startup of the engines.

(Ref.: 40 CFR 60.4209(a), Subpart IIII)

3.31 For Emission Points AA-002 and AA-003, the engines shall be certified to the emission standards in Conditions 3.25 and 3.37, respectively, and shall be installed and configured according to the manufacturer's emission-related specifications.

(Ref.: 40 CFR 60.4211(c), Subpart IIII)

3.32 For Emission Points AA-002 and AA-003, the permittee shall operate the emergency stationary ICE according to the requirements in (a) through (c) below. In order for the engines to be considered emergency stationary ICE under 40 CFR 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited. If you do not operate the engine according to the requirements below, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

(a) There is no time limit on the use of emergency stationary ICE in emergency situations.

(b) Emergency stationary ICE may be operated for maintenance checks and readiness testing for a maximum of a 100 hours per calendar year, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indication that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency

situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or the generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4211(f), Subpart IIII)

3.33 For Emission Point AA-003, the permittee shall not discharge or cause the discharge of Particulate Matter (PM_{10} and $PM_{2.5}$) in excess of 0.10 lb/hr (3-hour average) and <0.01 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.34 For Emission Point AA-003, the permittee shall not discharge or cause the discharge of Nitrogen Oxides (NO_x) in excess of 2.07 lb/hr (3-hour average) and 0.10 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.35 For Emission Point AA-003, the permittee shall not discharge or cause the discharge of Carbon Monoxide (CO) in excess of 1.81 lb/hr (3-hour average) and 0.09 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.36 For Emission Point AA-003, the permittee shall not discharge or cause the discharge of Volatile Organic Compounds (VOC) in excess of 0.06 lb/hr (3-hour average) and <0.01 tpy (12-month rolling total) determined by the manufacturer's guaranteed VOC performance level of 0.11g VOC/kWh.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.37 For Emission Point AA-003, the permittee shall purchase a certified engine that is certified to comply with the following NSPS Subpart IIII, emission standards.

(a) $PM_{10}/PM_{2.5}$ - 0.20 g PM/kWh

(b) NMHC + NO_x – 4.00 g NO_x/kWh

(c) CO – 3.50 g CO/kWh

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), 40 CFR 60.4202(a)(2), 40 CFR 60.4205(c), and Item 16 of Table 4, Subpart IIII, **BACT Limit**)

3.38 For Emission Point AA-003, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions (CO_2(e)) in excess of 15.41 tpy (12-month rolling

total) determined by the use of a USEPA-certified Tier 3 engine which meets the GHG performance levels specified in Tables C-1 and C-2 of 40 CFR 98.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.39 For Emission Points AA-003 and AA-004, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)

3.40 For Emission Point AA-004, the permittee shall not discharge or cause the discharge of Particulate Matter (PM_{10} and $PM_{2.5}$) in excess of 0.02 lb/hr (3-hour average) and 0.11 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.41 For Emission Point AA-004, the permittee shall not discharge or cause the discharge of Nitrogen Oxides (NO_x) in excess of 0.06 lb/hr (3-hour average) and 0.24 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) **BACT Limit**)

3.42 For Emission Point AA-004, the permittee shall not discharge or cause the discharge of Carbon Monoxide (CO) in excess of 0.19 lb/hr (3-hour average) and 0.81 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) **BACT Limit**)

3.43 For Emission Point AA-004, the permittee shall not discharge or cause the discharge of Volatile Organic Compounds (VOCs) in excess of 0.04 lb/hr (3-hour average) and 0.18 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j) **BACT Limit**)

3.44 For Emission Point AA-004, the permittee shall adhere to good combustion practices to meet the following emissions standards:

(a) $PM_{10}/PM_{2.5}$ – 0.0048 lb PM/MMBtu

(b) NO_X – 0.011 lb NO_x/MMBtu

(c) CO – 0.037 lb CO/MMBtu

(d) VOC – 0.008 lb VOC/MMBtu

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**.)

3.45 For Emission Point AA-004, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions (CO_2(e)) in excess of 2,572 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), **BACT Limit**)

3.46 For Emission Point AA-004, the maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned to primarily produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measure as sulfur dioxide) per million BTU heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

3.47 For Emission Points AA-005, AA-006, and AA-007, the permittee shall develop and employ the following Audio-Visual-Olfactory (AVO) program to detect and repair leaks to control NH_3, VOC, and GHG emissions from fugitive leaks before startup of the facility and after subsequent detections.

(a) All piping components shall be inspected by AVO means at least weekly by operating personnel walk-through.

(b) Immediately, but no later than one hour upon detection of a leak, plant personnel shall take at least one of the following actions:

(1) Isolate the leak.

(2) Commence repair or replacement of the leaking component.

(3) Use a leak collection/containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.

(c) Damaged or leaking valves, connectors, compressor seals, and pump seals found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10) **BACT Limit**)

3.48 For Emission Point AA-008, the permittee shall not discharge or cause the discharge of Volatile Organic Compounds (VOCs) in excess of 0.01 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10) **BACT Limit**)

3.49 For Emission Point AA-008, the permittee shall not discharge or cause the discharge of Particulate Matter (PM_{10} and $PM_{2.5}$) in excess of 0.01 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10) **BACT Limit**)

3.50 For Emission Point AA-009, the permittee shall not discharge or cause the discharge of Volatile Organic Compounds (VOCs) in excess of 0.01 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10) **BACT Limit**)

3.51 For Emission Point AA-009, the permittee shall not discharge or cause the discharge of Particulate Matter (PM_{10} and $PM_{2.5}$) in excess of 0.01 tpy (12-month rolling total).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10) **BACT Limit**)

3.52 For Emission Point AA-010, the permittee shall install a fixed roof that is mounted to the storage tank in a stationary manner and maintain all openings in a closed position at all times when not in use.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). **BACT Limit**)

3.53 For Emission Point AA-011, the permittee shall install a fixed roof that is mounted to the storage tank in a stationary manner and maintain all openings in a closed position at all times when not in use.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). **BACT Limit**)

3.54 For Emission Point AA-012, the permittee shall install a fixed roof that is mounted to the storage tank in a stationary manner and maintain all openings in a closed position at all times when not in use.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). **BACT Limit**)

3.55 For Emission Point AA-013, the permittee shall install a fixed roof that is mounted to the storage tank in a stationary manner and maintain all openings in a closed position at all times when not in use.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). **BACT Limit**)

SECTION 4. WORK PRACTICES

Emission Point	Applicable Requirement	Condition Number(s)	Work Practice

Emission Point	Applicable Requirement	Condition Number(s)	Work Practice
AA-004	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	4.1	Maintenance and Tune-Ups every 5 years

4.1 For Emission Point AA-004, the permittee shall perform tune-ups every five (5) years not to exceed 61 months from the previous tune-up. Each tune-up shall include the following:

(a) Inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown, but must inspect each burner at least once every 48 months);

(b) Inspect the flame pattern and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications;

(c) Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly;

(d) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specification and with any NO_x requirement to which the unit is subject;

(e) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(f) In lieu of performing the tune-up in accordance with (a) through (e) of this condition, the permittee can submit an alternative tune-up procedure based on the manufacturer's recommendation for approval by the DEQ at least sixty (60) days prior to the five-year tune-up.

(Ref.: 11Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

SECTION 5. MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Monitoring/Recordkeeping Requirement
Facility-Wide	11 Miss. Admin. Code Pt. 2, R. 2.9.	5.1	Recordkeeping	Maintain records for a minimum of 5 years.
	11 Miss. Admin. Code Pt. 2, R, 2.2.B(11).	5.2	$PM/PM_{10}/PM_{2.5}$ $CO/NOx/VOC/NH_3$ $SO_2/H_2SO_4/GHG$	Good Air Pollution Control Practices
	40 CFR 98, Subpart A, Table A-1	5.3	GHG	Global Warming Potential
AA-001	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.4	$PM/PM_{10}/PM_{2.5}$ $CO/NOx/VOC/NH_3$ $SO_2/H_2SO_4/GHG$	Develop and implement an operation and maintenance plan
	40 CFR 60.4333a(b) and 60.4405a, Subpart KKKKa	5.5	NO_x	Initial Performance Stack Testing
	40 CFR 60.4333a(c), (c)(2), and 63.4240a, Subpart KKKKa	5.6		CEMS Monitoring Requirements
	40 CFR 60.4345a(a)(1)-(4), (b)-(e), and (g), Subpart KKKKa	5.7		CEMS Monitoring Requirements
	40 CFR 60.4350a(a), (b), (c), (d), (e), and (g), Subpart KKKKa	5.8		Excess Emissions Monitoring Requirements
	40 CFR 60.4333a(d)(1) and 60.4415a(a), Subpart KKKKa	5.9	SO_2	Initial Performance Stack Testing
	40 CFR 60.4375a(j), Subpart KKKKa	5.10	NO_x SO_2	Electronic Recordkeeping
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.11	$PM_{10}/PM_{2.5}$	Stack Testing within 180 days of startup and biennially using EPA Test Methods Test Method 201a and 202, 40 CFR 51, Appendix M
			NO_X	Subsequent Stack Testing Compliance with EPA Test Method 7 or 40 CFR 60, Subpart KKKKa (using NO_x CEMS)
			CO	One-Time Initial Stack Testing within 180 days of startup and CO Continuous Emissions Monitoring (CEMS)
			VOC	One-Time Initial Stack Testing within 180 days of startup and biennially using EPA Test Method 25, 40 CFR 60, Appendix A

			SO_2 H_2SO_4	One-Time Initial Stack Testing with EPA Test Method 8 followed by compliance with 40 CFR 60, Subpart KKKKa using the specified option in 40 CFR 60.4333a(d)(1)
		5.12	NH_3	Ammonia Slip Compliance
		5.13	Catalyst Bed Temperature and NH_3 Injection Rate	Parametric Monitoring Requirements
		5.14	GHG CO_2e	Hourly Determination of actual Heat Input
		5.15		Hourly Recordkeeping
		5.16		Compliance of GHG BACT will be demonstrated by following 40 CFR 60, Subpart TTTTa
		5.17	Operating Restrictions	Monitor hours of operation
AA-001	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.18	GHG CO_2e	GHG Emissions Calculations
		5.19	$PM/PM_{10}/PM_{2.5}$ $CO/NOx/VOC/NH_3$ $SO_2/H_2SO_4/GHG$	Excess Emissions and Monitor Downtime
	40 CFR 60.5525a, Subpart TTTTa	5.20	CO_2	General Requirements
	40 CFR 60.5535a, Subpart TTTTa	5.21		Excess Emissions
	40 CFR 60.5540a(a), Subpart TTTTa	5.22		Recordkeeping
	40 CFR 60.5560a, Subpart TTTTa	5.23		
	40 CFR 60.5565a, Subpart TTTTa	5.24		
AA-002 AA-003	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.25	$PM_{10}/PM_{2.5}$ NO_X CO VOC	Determine compliance using emission calculations
	40 CFR 60.4206, Subpart IIII	5.26	Compliance	Maintain emissions standards
	40 CFR 60.4211(a), Subpart IIII	5.27		Operate and maintain according to manufacturer's written instructions
	40 CFR 60.4211(g)(3), Subpart IIII	5.28		Recordkeeping
	40 CFR 60.4214(b), Subpart IIII	5.29		

AA-004	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.30	CO PM/PM_{10}/$PM_{2.5}$ VOC H_2SO_4 Mist	Determine compliance using emission calculations
		5.31	GHG	Calculate and record CO_2(e) emissions on a 12-month rolling average
AA-005 AA-006 AA-007	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.32	VOC GHG CO_2e	Maintain AVO plan and repairs made
AA-008 AA-009	11 Miss. Admin Code Pt. 2, R. 2.2.B(11).	5.33	VOC PM_{10}/$PM_{2.5}$	Perform Method 22 Inspections
		5.34		Maintain mass balance calculation records
AA-010 AA-011 AA-012 AA-013	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.35	VOC	Monthly Inspections
		5.36		Monitoring Requirements

5.1 The permittee shall retain all required records, monitoring data, supporting information and reports for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to the DEQ as required by Applicable Rules and Regulations or this permit upon request.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.9.)

5.2 For the entire facility, at all times, including periods of startup, shutdown, shakedown, tuning and malfunction, the permittee shall, to the extent practicable, maintain and operate the facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the DEQ, which may include, but is not limited to, monitoring results, opacity observation, review of operating maintenance procedures and inspection of the facility.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.3 For the entire facility, for the purposes of showing compliance with any GHG emission limit in this permit, the Global Warming Potential (GWP) factors listed in 40 CFR 98, Subpart A, Table A-1 as of the issuance date of this permit shall be used. The current GWP factors are listed below:

GHG Pollutant	GWP Factor

CO_2	1
CH_4	28
N_2O	265
SF_6	23,500

(Ref.: 40 CFR 98, Subpart A, Table A-1)

5.4 For Emission Point AA-001, as soon as practicable following initial startup of the combustion turbine but prior to commencement of commercial operation, and thereafter, the permittee shall develop and implement an operation and maintenance plan. At a minimum, the plan shall identify measures for assessing the performance of the turbine, the acceptable range of the performance measures for achieving the design electrical output, the methods for monitoring the performance measures, and the routine procedures for maintaining the turbine in good operating condition.

The permittee shall maintain a copy of the current operation and maintenance plan for the facility and shall keep a copy of all prior versions of the plan for a minimum of five years. The permittee shall also keep records of the monitoring data for each of the facility performance measures and all maintenance activities; the permittee shall maintain such records for a minimum of 5 years following the date they are created.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.5 For Emission Point AA-001, the permittee shall demonstrate compliance with the NO_x emission limitations by conducting an initial performance test on the combustion turbine according to 40 CFR 60.8 using the applicable methods in 40 CFR 60.4405a(b), as described below.

(a) Perform a minimum of nine Relative Accuray Test Audits (RATA) reference method runs, with a minimum time per run of 21 minutes, at a single load level, within ±25 percent of 100 percent of the base load rating while the source is combusting the fuel that is a normal primary fuel for that source. The permittee may perform testing at the highest achievable load point, if at least 75 percent of the base load rating cannot be achieved in practice. The ambient temperature must be greater than 0 °F during the RATA runs. The DEQ may approve performance testing below 0 °F if the timing of the required performance test and environmental conditions make it impractical to test at ambient conditions greater than 0 °F.

(b) For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) or the methodologies in Appendix F to 40 CFR 75, and for units complying with the output-based standard, measure the electrical and thermal output from the unit.

(c) Use the test data both to demonstrate compliance with the applicable NO_x emissions standard in Condition 3.4 and to provide the required reference method data for the RATA of the CEMS described under 40 CFR 60.4342a.

(d) Compliance with the applicable emissions standard in 40 CFR 60.4320a is achieved if the sum of the NO_x emissions divided by the heat input (or gross or net energy output) for all the RATA runs, expressed in units of lb/MMBtu, ppm, lb/MWh, or kgs, does not exceed the emissions standard.

(Ref.: 40 CFR 60.4333a(b) and 60.4405a(b), Subpart KKKKa)

5.6 For Emission Point AA-001, the permittee shall demonstrate continuous, subsequent compliance with the applicable NO_x emission standard in Condition 3.4 using a Continuous Emissions Monitoring System (CEMS) for measuring NO_x emissions according to the provisions in 40 CFR 60.4345a. CEMS NO_x measurements must be used to determine excess emissions.

(Ref.: 40 CFR 60.4333a(c) and (c)(2), Subpart KKKKa)

5.7 For Emission Point AA-001, each CEMS measuring NO_x emissions shall meet the requirements below:

(a) The permittee must install, certify, maintain, and operate a NO_x monitor to determine the hourly average NO_x emissions in the units of the standard with which the permittee is complying.

(b) The permittee must install, calibrate, maintain, and operate either a fuel flow meter (or flow meters) or an O_2 or CO_2 CEMS and a stack flow monitor to continuously measure the heat input to the turbine.

(c) If the permittee elects to comply with an output-based emissions standard, the permittee must also install, calibrate, maintain, and operate both a watt meter (or meters) to continuously measure the gross electrical output from the turbine and either a fuel flow meter (or flow meters) or an O_2 or CO_2 CEMS and a stack flow monitor. If the permittee has a CHP combustion turbine and elects to comply with an output-based emissions standard, the permittee must also install, calibrate, maintain, and operate meters to continuously determine the total useful recovered thermal energy. For steam this includes flow rate, temperature, and pressure. If the permittee has a direct mechanical drive application and elects to comply with the output-based emissions standard, the permittee must submit a plan to the DEQ for approval of how energy output will be determined.

(d) If the permittee elects to comply with the part-load NO_x emissions standard, the permittee must install, calibrate, maintain, and operate either a fuel flow meter (or flow meters) or an O_2 or CO_2 CEMS and a stack flow monitor to continuously measure the heat input to the turbine.

(e) Each NO_x CEMS must be installed and certified according to PS 2 in Appendix B to 40 CFR 60, Subpart KKKKa. The span value must be 125 percent of the highest applicable standard or highest anticipated hourly NO_x emissions rate. Alternatively, span values determined according to section 2.1.2 in Appendix A to 40 CFR 75 may be used.

(f) The permittee shall use NO_x and diluent CEMS that are installed and certified according to Appendix A of 40 CFR 75 in lieu of Procedure 1 in Appendix F of 40 CFR 60, Subpart KKKKa and the requirements of 40 CFR 60.13 with approval from the DEQ, except that the RATA of the CEMS must be performed on a lb/MMBtu basis.

(g) During each full operating hour, both the NO_x monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour. For partial operating hours, at least one data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two data points (one in each of two quadrants) are required for each monitor.

(h) Each fuel flow meter must be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, fuel flow meters that meet the installation, certification, and quality assurance requirements in Appendix D of 40 CFR 75 are acceptable for use under 40 CFR, Subpart KKKKa.

(i) Each watt meter, steam flow meter, and each pressure or temperature measurement device must be installed, calibrated, maintained, and operated according to manufacturer's instructions.

(j) At a minimum, non-out-of-control CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-operating-day rolling average basis.

(Ref.: 40 CFR 60.4345a(a)(1)-(4), (b)-(e), and (g), Subpart KKKKa)

5.8 For Emission Point AA-001, for the purposes of determining excess NO_x emissions:

(a) Excess emissions are defined as the applicable compliance period for the stationary combustion turbine (either 4-operating-hours, 30-operating-days, or 12-calendar-month), during which the average NO_x emissions from the affected facility measured by the CEMS is greater than the applicable maximum allowable NO_x emissions standard specified in Condition 3.4 as determined using the applicable procedures to the stationary combustion turbine.

(b) The NO_x CEMS data for each operating hour as measured according to the requirements in 40 CFR 60.4345a must be used to determine the hourly average NO_x emissions. The hourly average for a given operating hour is the average of all data points for the operating hour. However, for any periods during which the

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NO_x, diluent, flow, watt, steam pressure, or steam temperature monitors (as applicable) are out-of-control, the data points are not used in determining the hourly average NO_x emissions. All data points that are not collected during out-of-control periods must be used to determine the hourly average NO_x emissions.

(c) For each operating hour in which an hourly average is obtained, the data acquisition and handling system must calculate and record the hourly average NO_x emissions in units of lb/MMBtu or lbs, as applicable, using the appropriate equation from EPA Method 19 in Appendix A-7 of Subpart KKKKa. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2 (or the hourly average CO_2 concentration is less than 1.0 percent CO_2), a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2 (as applicable) may be used in the emission calculations.

(d) Data used to meet the requirements of Subpart KKKKa shall not include substitute data values derived from the missing data procedures of 40 CFR 75, nor shall the data be bias adjusted according to the procedures of 40 CFR 75. For units complying with the 12-calendar-month mass-based standard, emissions for hours of missing data shall be estimated by using the average emissions rate of non-out-of-control hours within ±10 percent of the hour of missing data within the 12-calendar-month period. If non-out-of-control data is not available, the maximum hourly emissions rate during the 12-calendar-month period shall be used.

(e) All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages. However, for any periods during which the flow, watt, steam pressure, or steam temperature monitors (as applicable) are out-of-control, the data points are not used in determining the appropriate hourly average value.

(f) For the stationary combustion turbine demonstrating compliance on a heat input-based emissions standard, excess NO_x emissions are determined on a 4-operating-hour averaging period basis using the NO_x CEMS data and procedures specified below as applicable to the NO_x emissions standard in Condition 3.4.

(1) For each 4-operating-hour period, compute the 4-operating-hour rolling average NO_x emissions as the heat input weighted average of the hourly average of NO_x emissions for a given operating hour and the 3 operating hours preceding that operating hour using the applicable equation in 40 CFR 60.4350a(g)(2). Calculate a 4-operating-hour rolling average NO_x emissions rate for any 4-operating-hour period when there is valid CEMS data for at least 3 of those hours (e.g., a valid 4-operating-hour rolling average NO_x emissions rate cannot be calculated if one or more continuous monitors was out-of-control for the entire hour for more than one hour during the 4-operating-hour period).

(2) If the permittee elects to comply with the applicable heat input-based emissions rate standard, calculate both the 4-operating-hour rolling average NO_x emissions rate and the applicable 4-operating-hour rolling average NO_x emissions standard, calculated using hourly values in Table 1 of Subpart KKKKa, using Equation 4 of 40 CFR 60.4350a(g)(2).

(Ref.: 40 CFR 60.4350a(a), (b), (c), (d), (e), and (g), Subpart KKKKa)

5.9 For Emission Point AA-001, the permittee shall demonstrate continuous compliance with the applicable SO_2 emission standard in Condition 3.5 by conducting an initial performance test on the combustion turbine according to 40 CFR 60.8 using the applicable methods in 40 CFR 60.4415a(a), as described below.

(a) The permittee shall obtain and maintain on-site records of the fuel receipts (such as a current, valid purchase contract, tariff sheet, transportation contract, or results of a fuel analysis) using the applicable methods and frequency specified above to satisfy the requirements of 40 CFR 60.8.

(Ref.: 40 CFR 60.4333a(d)(1) and 60.4415a(a), Subpart KKKKa)

5.10 For Emission Point AA-001, any records required to be maintained by 40 CFR 60, Subpart KKKKa, that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

(Ref.: 40 CFR 60.4375a(j), Subpart KKKKa)

5.11 For Emission Point AA-001, the permittee shall demonstrate initial compliance with the CO, PM, VOC, NO_x, SO_2, and H_2SO_4 mist emission limits, set forth in Section 3 of this permit by stack testing in accordance with the applicable EPA Test Methods listed below or an EPA approved alternative within 180 days after startup.

Carbon Monoxide (CO)	EPA Test Method 10
Particulate Matter ($PM/PM_{10}/PM_{2.5}$)	EPA Test Methods 201a and 202
Volatile Organic Compounds (VOC)	EPA Test Method 25
Nitrogen Oxides (NO_x)	EPA Test Method 7
SO_2 and Sulfuric Acid Mist (H_2SO_4)	EPA Test Method 8

All test methods shall be the current versions, which are in effect upon permit issuance. The stack testing shall be performed when the emission units are operating as close to their maximum capacity as operating conditions allow.

In lieu of initial stack testing for SO_2 emissions, the subsequent compliance with the SO_2 and H_2SO_4 mist emission limitations shall follow the procedures outlined in Condition 5.9 or comply with EPA Test Method 8.

Following initial stack testing for CO, the permittee can demonstrate compliance with the CO emission limitations using a CO CEMS. Demonstrating compliance with the ppm, lb/hr, and tons/yr limits using CEMS data in lieu of EPA Reference Methods is an acceptable practice provided the permittee meets the guidelines established in EPA's general guidance on "Alternative Testing and Monitoring Procedures for Combustion Turbines Regulated under New Source Performance Standards." This includes the use of reference method test data collected during RATA required per 40 CFR 75.

Following initial stack testing for NOx emissions, the subsequent compliance with the NOx emission limitations shall follow the procedures outlined in Conditions 5.6, 5.7, and 5.8 or comply with EPA Test Method 7.

Subsequent stack testing for PM and VOC shall be conducted within 25 months of the previous stack test. If a stack test shows that the emissions are at or below 75 percent of the emission limits in Section 3, then the permittee shall stack test once every 5 years (not to exceed 60 months from previous stack test). If a stack test shows emissions exceeding 75 percent of the emission limit, the permittee shall perform the stack test biennially (not to exceed 25 months from the previous test). The stack testing shall be performed on a biennial basis (not to exceed 25 months from the previous test) until two consecutive stack tests show emissions below 75 percent of the emission limit at which time the stack testing may return to the once per five (5) year (60 month) testing frequency.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.12 For Emission Point AA-001, the permittee shall install and operate a dual-stream NO_x CEMS system at the outlet of the SCR. One sample stream shall be routed directly to a NO_x analyzer. A second sample stream shall pass through an NH_3 converter prior to entering a second NO_x analyzer. The NH_3 slip concentration shall be determined as the difference between the converted and unconverted NO_x concentrations. The results shall be recorded and used to determine compliance with Condition 3.19.

The permittee shall conduct an initial performance test on the combustion turbine by following the RATA and QA/QC test methods outlined in Condition 5.5.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.13 For Emission Point AA-001, the permittee shall continuously monitor and keep records of the catalyst bed temperature and the ammonia injection rate. The permittee shall keep records of any instances when the operating parameters range established during the performance stack test are not met. These records shall include date, time, duration, and any corrective actions that are performed.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.14 For Emission Point AA-001, the permittee shall measure and record the actual heat input (MMBtu) on an hourly basis in accordance with 40 CFR 75.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.15 For Emission Point AA-001, the permittee shall measure/calculate and record the following on an hourly basis:

(a) Gross energy output rate (MW)

(b) CO_2 mass emission rate (tons CO_2/hr)

(c) Heat input rate (MMBtu/hr)

(d) Unit operating time, as described in CFR 75.57(b)(2)

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.16 For Emission Point AA-001, the permittee shall demonstrate compliance with the BACT limits for GHG by performing the calculations, monitoring and recordkeeping for GHG emissions in accordance with 40 CFR 60, Subpart TTTTa. The permittee shall be in compliance with the BACT limits for GHG at all times.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.17 For Emission Point AA-001, the permittee shall record the hours of operation on a daily basis. These records shall include a record of all startups, shutdowns, or tuning of the combustion turbines and SCR systems. The records maintained for each startup, shutdown, or tuning event shall contain the date, start time, end time, duration, a description of any deviations from manufacturers or permittee's written instructions or permit limits that contribute to excess emissions, and a confirmation that good air pollution control practices were followed during the event.

The permittee shall also maintain records that include the following: the occurrence and duration of any startup, shutdown, tuning, shakedown, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and corresponding emission measurements.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.18 For Emission Point AA-001, for demonstrating compliance with the limits in Condition 3.15, the permittee shall use the procedures set forth in 40 CFR 75 and 98 to determine resulting GHG emissions as CO_2e based on the calculated CO_2 emissions (from hourly heat input data) and calculated CO_2e of other GHG pollutants. The permittee shall keep adequate records of these GHG emission calculations.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.19 For Emission Point AA-001, the permittee shall maintain records of all excess emissions. Excess emissions shall be defined as any period in which the emissions exceed the maximum emission limits set forth in this permit. A period of monitoring down-time shall be any unit operating hour in which sufficient data was not obtained by the CEMS to validate the hour according to 40 CFR 75. Excess emissions indicated by the CEMS system, source testing, or compliance monitoring shall be considered violation of the applicable emission limit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.20 For Emission Point AA-001, compliance with the applicable CO_2 emission standard in Condition 3.15 shall be determined on a 12-operating-month rolling average basis.

(a) The permittee shall be in compliance with the emission standards in 40 CFR 60, Subpart TTTTa that apply to the EGU at all times. For each affected EGU, the permittee shall determine compliance monthly by calculating the average CO_2 emissions rate for the affected EGU at the end of the initial and each subsequent 12-operating-month period. However, the permittee shall determine compliance with the emission standards only at the end of the applicable operating month, as provided in (1) and (2) below.

(1) At all times, the permittee shall operate and maintain each affected EGU, including associated equipment and monitors, in a manner consistent with safety and good air pollution control practice. The DEQ will determine if you are using consistent operation and maintenance procedures based on information available to the DEQ that may include, but is not limited to, fuel use records, monitoring results, review of operation and maintenance procedures and records, review of reports, and inspection of the EGU.

(2) Within 30 days after the end of the initial compliance period (i.e., no more than 30 days after the first 12-operating-month compliance period), the permittee shall make an initial compliance determination for your affected EGU(s) with respect to the applicable emissions standard in Condition 3.15, in accordance with the requirements in 40 CFR 60, Subpart TTTTa. The first operating month included in the initial 12-operating-month compliance period shall be determined by following the procedures in 40 CFR 60.5525a(c).

(Ref.: 40 CFR 60.5525a, Subpart TTTTa)

5.21 For Emission Point AA-001, the permittee shall prepare a monitoring plan to quantify the hourly CO_2 mass emission rate (tons/hr), in accordance with the applicable provisions in 40 CFR 75.53(g) and (h). The electronic portion of the monitoring plan must be submitted using the ECMPS Client Tool and must be in place prior to reporting emissions data and/or the results of monitoring system certification tests under this subpart. The monitoring plan must be updated as necessary.

The permittee shall comply with the following:

(a) Determine the hourly CO_2 mass emissions (tons/hr) according to (1) through (4)

(1) The permittee shall implement the applicable procedures in Appendix D to 40 CFR Part 75 to determine hourly EGU heat input rates (MMBtu/hr), based on hourly measurements of fuel flow rate and periodic determinations of the grass calorific value (GCV) of each fuel combusted.

(2) For each measured hourly heat input rate, use Equation G-4 in Appendix G to 40 CFR Part 75 to calculate the hourly CO_2 mass emission rate (tons/hr). The permittee may determine site-specific carbon-based F-factors (Fc) using Equation F-7b in section 3.3.6 of Appendix F to 40 CFR Part 75 and may use these Fc values in the emissions calculations instead of the default Fc values in the Equation G-4 nomenclature.

(3) For each "valid operating hour," multiply the hourly tons/hr CO_2 mass emissions rate from (b) above by the EGU or stack operating time in hours (as defined in 40 CFR 72.2), to convert it to tons of CO_2. Then, multiply the result by 907.2 to convert from tons of CO_2 to kg. Round off to the nearest two significant figures.

(4) The hourly CO_2 tons/hr values and EGU (or stack) operating times used to calculate CO_2 mass emissions are required to be recorded under 40 CFR 75.57(e) and must be reported electronically under 40 CFR 75.64(a)(6). The permittee must use this data to calculate the hourly CO_2 mass emissions.

(b) The permittee shall install, calibrate, maintain, and operate a sufficient number of Watt meters to continuously measure and record the hourly gross electric output or net electric output, as applicable, from the affected EGU. These measurements must be performed using 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI No. C12.20-2010.

(Ref.: 40 CFR 60.5535a(a), (c)(1 through 4), Subpart TTTTa)

5.22 For Emission Point AA-001, for the initial and each subsequent 12-operating-month rolling average compliance period, to demonstrate compliance with Condition 3.15, the permittee shall follow the procedures in paragraphs 40 CFR 60.5540a(a)(1) through (8) to calculate the CO_2 mass emissions rate for your affected EGU(s) in units of the applicable emissions standard (i.e., either kg/MWh or lb/MMBtu). The permittee shall use the hourly CO_2 mass emissions calculated under Condition 5.20(a), as applicable, and the generating load data from Condition 5.20(b) for output-based calculations. The CO_2 mass emissions rate for Emission Point AA-001 must be determined according to the procedures specified in 40 CFR 60.5540a(a) (1) through (8) and must be less than or equal to the applicable CO_2 emission standard in Condition 3.15.

(Ref.: 40 CFR 60.5540a(a), Subpart TTTTa)

5.23 For Emission Point AA-001, the permittee shall comply with the following recordkeeping requirements:

(a) Maintain records of the information used to demonstrate compliance with 40 CFR 60, Subpart TTTTa as specified in 40 CFR 60.7(b) and (f).

(b) For affected EGUs subject to the Acid Rain Program, the permittee shall follow the applicable recordkeeping requirements and maintain records as required under 40 CFR 75, Subpart F.

(c) Keep records of the calculations performed to determine the hourly and total CO_2 mass emissions (tons) for each operating month (for all affected EGUs) and each compliance period, including each 12-operating-month compliance period.

(d) Keep records of the applicable data recorded and calculations performed that were used to determine the affected EGU's gross or net energy output for each operating month.

(e) Keep records of the calculations performed to determine the percentage of valid CO_2 mass emission rates in each compliance period.

(f) Keep records of the calculations performed to assess compliance with each applicable CO_2 mass emissions standard in Condition 3.15.

(g) Keep records of the calculations performed to determine any site-specific carbon-based F-factors you used in the emissions calculations.

(Ref.: 40 CFR 60.5560a, Subpart TTTTa)

5.24 For Emission Point AA-001, the permittee shall comply with the following:

(a) Records must be in a form suitable and readily available for expeditious review.

(b) Maintain each record for 5 years after the date of conclusion of each compliance period.

(c) Maintain each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 60.7. Records that are accessible from a central location by a computer or other means that instantly provide access at the site meet this requirement. The permittee may maintain the records off site for the remaining year(s) as required by this subpart.

(Ref.: 40 CFR 60.5565a, Subpart TTTTa)

5.25 For Emission Points AA-002 and AA-003, the permittee shall determine compliance with the $PM_{10/2.5}$, NO_x, CO, and VOC BACT limits by calculating emissions on a tons per year

basis. Emissions shall be calculated using, but not limited to, hours of operation, manufacturer's specifications, and stack testing data.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.26 For Emission Points AA-002 and AA-003, the permittee shall operate and maintain the stationary Compression Ignition (CI) Internal Combustion Engines (ICE) so that it meets the emission standards and the BACT Limits in Conditions 3.25 and 3.37 for the entire life of the engines.

(Ref.: 40 CFR 60.4206, Subpart IIII)

5.27 For Emission Points AA-002 and AA-003, the permittee shall comply with the following:

(a) Operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions.

(b) Change only those emission-related settings that are permitted by the manufacturer; and

(c) Meet the requirements of 40 CFR Parts 89, 94, and/or 1068, as they apply.

(Ref.: 40 CFR 60.4211(a), Subpart IIII)

5.28 For Emission Points AA-002 and AA-003, if the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the emission-related settings are changed in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows: the permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(Ref.: 40 CFR 60.4211(g)(3), Subpart IIII and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.29 For Emission Points AA-002 and AA-003, the permittee shall keep records of the hours of operation of the engines in emergency and non-emergency service that are recorded through the non-resettable hour meter. The records shall indicate how many hours are spent on emergency operations, including what classified the operation as emergency, and how many hours are spent on non-emergency operations.

(Ref.: 40 CFR 60.4214(b), Subpart IIII)

5.30 For Emission Point AA-004, the permittee shall determine compliance with the BACT limits by using vendor emissions data, following work practice standards, and manufacturer's specifications specified in Condition 4.1.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.31 For Emission Point AA-004, the permittee shall use the annual heat input and data from 40 CFR 98, Table C-1 to calculate and record CO_2e emissions on a 12-month rolling average using the Global Warming Potential factors in Condition 5.3.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.32 For Emission Points AA-005, AA-006, and AA-007, the permittee shall record and maintain a log of daily AVO inspections, and any repairs made to the fugitive sources. The AVO monitoring program shall contain the following for recordkeeping and operational safety:

(a) The date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to AVO-detected leaks.

(b) Affected operating staff shall receive annual refresher training on the AVO leak detection and repair program.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.33 For Emission Points AA-008 and AA-009, the permittee shall perform weekly Method 22 inspections to ensure that the mist elimination system is working as intended. The permittee shall keep a record of all Method 22 inspections performed, including any corrective actions, if there are any visible emissions during the visible emission evaluations.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.34 For Emission Points AA-008 and AA-009, the permittee shall perform and maintain records of mass balance calculations to verify the BACT limits and emission standards in Conditions 3.48 through 3.51.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.35 For Emission Points AA-010, AA-011, AA-012, and AA-013, the permittee shall perform weekly inspections and record if a leak is detected, and the corrective action taken to minimize the release of VOC.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.36 For Emission Points AA-010, AA-011, AA-012, and AA-013, the permittee shall maintain monthly tank throughput records and for each consecutive 12-month period on a rolling basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

SECTION 6. REPORTING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Reporting Requirement
Facility-Wide	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.1(a)	Report deviations within five (5) working days
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.1(b)	Semiannual reporting
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.1(c)	Certification by responsible official
	11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).	6.1(d)	Notification of beginning actual construction within 15 days
	11 Miss. Admin. Code Pt. 2, R. 2.5.C(3).	6.1(e)	Notification when construction does not begin or is suspended
	11 Miss. Admin. Code Pt. 2, R. 2.5.D(1) and (3).	6.1(f)	Certification of completion of construction prior to operation
	11 Miss. Admin. Code Pt. 2, R. 2.5.D(2).	6.1(g)	Notification of changes in construction
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.2	Submit stack test protocol 30 days prior to conducting the stack test
		6.3	Submit a stack test report within 60 days of conducting the stack test
AA-001	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.4	Semi-annual reporting
		6.5	Submit records of startup, shutdown, and tuning events
		6.6	Submit monitoring plan in accordance with 40 CFR 75.62
		6.7	Notification in 40 CFR 75.61
		6.8	Excess Emissions
		6.9	Submit records of parametric monitoring data
	40 CFR 60.4375a(a), (b), (e), and (g), Subpart KKKKa	6.10	Excess Emission Reports
	40 CFR 60.4380a(b), Subpart KKKKa	6.11	NO_x CEMS Reporting
	40 CFR 60.4385a(b), Subpart KKKKa	6.12	SO_2 Fuel Analyses Reporting
	40 CFR 60.4390a(a) and (f), Subpart KKKKa	6.13	
	40 CFR 60.4395a, Subpart KKKKa	6.14	Semi-Annual EPA Reporting

Emission Point	Applicable Requirement	Condition Number(s)	Reporting Requirement
	40 CFR 60.5550a(a), Subpart TTTTa	6.15	Submit notifications specified in 40 CFR 60.7(a)(1) and (3), and 60.19 and Table 3
	40 CFR 60.5550a(b), Subpart TTTTa	6.16	Submit notifications specified in 40 CFR 75.61
	40 CFR 60.5555a(a), Subpart TTTTa	6.17	Reporting Requirements
	40 CFR 60.5555a(b), Subpart TTTTa	6.18	Electronic Reports
AA-001	40 CFR 60.5555a(c), Subpart TTTTa	6.19	Reporting under Acid Rain Program
	40 CFR 60.5555a(d), Subpart TTTTa	6.20	
AA-005 AA-006 AA-007	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.21	Submit AVO Monitoring Plan report before startup and subsequent semi-annual reports of leaks detected and repairs made
AA-008 AA-009	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.22	Report Method 22 inspection results and mass balance calculations
AA-010 AA-011 AA-012 AA-013	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.23	Submit reports of monthly inspections and the throughput records

6.1 General Reporting Requirements:

(a) The permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) working days of the time the deviation began.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

(b) Beginning upon issuance of this permit and lasting until issuance or modification of the applicable operating permit, the permittee shall submit reports of any required monitoring by July 31st and January 31st for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with 11 Miss. Admin. Code Pt. 2, R. 2.1.C. Where no monitoring data is required to be reported and/or there are no deviations to report, the report shall contain the appropriate negative declaration. For any air emissions equipment not yet constructed and/or operating the report shall so note and include an estimated date of commencement of construction and/or startup, whichever is applicable.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

(c) Any document required by this permit to be submitted to the DEQ shall contain a certification signed by a responsible official stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

(d) Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).)

(e) The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(3).)

(f) Upon the completion of construction or installation of an approved stationary source or modification, and prior to commencing operation, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(1) and (3).)

(g) The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with “as built” plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an “as built” application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(2).)

6.2 For the entire facility, the permittee shall submit a stack test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. If the initial stack test protocol is acceptable, subsequent test protocols may be waived if these protocols contain no significant changes. Also, the DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be present to witness the test(s).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.3 For the entire facility, the permittee shall submit a report of any stack test results within sixty (60) days of conducting the respective stack test.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.4 For the entire facility, the permittee shall submit a summary of the 12-month rolling totals for CO, PM (PM/PM_{10}/$PM_{2.5}$), VOC, NO_x, NH_3, and H_2SO_4 mist emissions during the semiannual reporting period.

For Emission Point AA-001, the report shall also indicate whether there were any periods where the CEMS indicated emissions were in excess of the concentration or lb/hr (24-hour rolling average based on a one-hour average) emission limits. The information above shall be submitted in the semi-annual report required in Condition 6.1(b).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.5 For Emission Point AA-001, the permittee shall submit a report which contains the hours of operation during the reporting period for each operating mode. At a minimum, this report shall include the number of startups and shutdowns, duration of each, and the time the combustion unit was in operation until such time the control equipment began to operate. The information shall be submitted in accordance with Condition 6.1(b).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.6 For Emission Point AA-001, in accordance with 40 CFR 75.62, an initial monitoring plan shall be submitted identifying the methodology for which CO_2 mass emissions will be continuously monitored. The initial monitoring plan shall be submitted no later than 21 days prior to the initial certification tests.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.7 For Emission Point AA-001, the permittee shall provide notification as specified in 40 CFR 75.61 for any event related to the continuous measurement of CO_2.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.8 For Emission Point AA-001, the permittee shall submit a semiannual report of all excess emissions in accordance with Condition 6.1(b), except when: more frequent reporting is specifically required by an applicable subpart; or the DEQ, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source.

(a) Time intervals, data and magnitude of excess emissions, the nature and cause (if known), corrective actions taken and preventive measure adopted;

(b) Applicable time and date of each period during which the CEMS was inoperative (monitor down-time), except for zero and span checks, and the nature of CEMS repairs or adjustments;

(c) A statement in the report of a negative declaration; that is, a statement when no excess emissions occurred or when the CEMs has not been inoperative, repaired, or adjusted.

(d) Any failure to conduct any required source testing, monitoring, or other compliance activities; and

(e) Any violation of limitations on operation, including but not limited to restriction on hours operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.9 For Emission Point AA-001, the permittee shall submit a report which contains the parametric monitoring records required by Condition 5.13. The report shall include any time during the reporting period where the emission points operated outside of the parametric values established during the most recent performance test. The information shall be submitted in accordance with Condition 6.1(b).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.10 For Emission Point AA-001, the permittee must submit reports according to the following:

(a) Submit reports of excess emissions and monitor downtime, according to 40 CFR 60.7(c). Excess emissions must be reported for all periods of unit operation, including startup, shutdown, and malfunction.

(b) The permittee must follow the notification requirements of 40 CFR 60.8 that apply to the initial and subsequent performance tests.

(c) Within 60 days after the date of completing each performance test or CEMS performance evaluation that includes a RATA, the permittee must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), accessed through the EPA's Central Data Exchange (CDX). All information submitted through CEDRI will be available to the public without further notice to the permittee. Do not use CEDRI to submit confidential information. Follow 40 CFR 60.4375(g) guidelines to submit confidential information.

(Ref.: 40 CFR 60.4375a(a), (b), (e), and (g), Subpart KKKKa)

6.11 For Emission Point AA-001, the permittee shall report periods of excess emissions and monitor downtime for the turbine using a CEMS according to the following:

(a) An excess emission that must be reported is any unit operating period in which the 4-operating-hour average NO_x emissions rate, 30-operating-day rolling average NO_x emissions rate, 4-hour mass-based emission rate, or the 12-calendar-

month mass-based emissions rate exceeds the applicable emissions standard in Condition 3.4 as determined in Condition 5.8.

(b) A period of monitor downtime that must be reported is any operating hour in which the data for any of the following parameters that the permittee must use to calculate the emission rate, as applicable, used to determine compliance, are either missing or out-of-control: NO_x concentration, CO_2 or O_2 concentration, stack flow rate, heat input rate, steam flow rate, steam temperature, steam pressure, or megawatts. The permittee is only required to monitor parameters used for compliance purposes.

(Ref.: 40 CFR 60.4380a(b), Subpart KKKKa)

6.12 For Emission Point AA-001, the permittee must maintain records of fuel sulfur content excess emissions that are defined as any period during which the permittee combusts fuel that do no have appropriate fuel records or contain sulfur greater than the applicable standard.

(Ref.: 40 CFR 60.4385a(b), Subpart KKKKa)

6.13 For Emission Point AA-001, the permittee must maintain records of the information used to demonstrate compliance with 40 CFR 60, Subpart KKKKa, as specified in 40 CFR 60.7. By complying with Condition 3.5, the permittee must maintain records of the results of all fuel analyses or a current, valid purchase contract, tariff sheet, or transportation contract supplied by the fuel vendor.

(Ref.: 40 CFR 60.4390a(a) and (f), Subpart KKKKa)

6.14 For Emission Point AA-001, the permittee shall electronically submit all reports consistent with 40 CFR 60.7 via CEDRI by the 30th day following the end of each 6-month period.

(Ref.: 40 CFR 60.4395a, Subpart KKKKa)

6.15 For Emission Point AA-001, the permittee shall submit the notifications specified in 40 CFR 60.7(a)(1) and (3) and 60.19, as applicable to the affected EGU (see Table 3 of Subpart TTTTa).

(Ref.: 40 CFR 60.5550a(a), Subpart TTTTa)

6.16 For Emission Point AA-001, the permittee shall submit notifications specified in 40 CFR 75.61, as applicable, to the affected EGU.

(Ref.: 40 CFR 60.5550a(b), Subpart TTTTa)

6.17 For Emission Point AA-001, the permittee shall submit reports according to 40 CFR 60.5555a(a) through (d) (Conditions 6.17 through 6.19), as applicable.

(a) For affected EGUs that are required by 40 CFR 60.5525a (Condition 5.22) to conduct initial and on-going compliance determinations on a 12-operating-month rolling average basis, the permittee shall submit quarterly electronic reports as follows. After accumulating the first 12-operating months for the affected EGU, the permittee shall submit a report for the calendar quarter that includes the twelfth operating month no later than 30 days after the end of that quarter. Thereafter, you must submit a report for each subsequent calendar quarter, no later than 30 days after the end of the quarter.

(b) Each quarterly report shall include the following information, as applicable:

(1) Each rolling average CO_2 mass emissions rate for which the last (twelfth) operating month in a 12-operating-month compliance period falls within the calendar quarter. The permittee shall calculate each average CO_2 mass emissions rate for the compliance period according to the procedures in 40 CFR 60.5540a (Condition 5.23). The permittee shall report the dates (month and year) of the first and twelfth operating months in each compliance period for which you performed a CO_2 mass emissions rate calculation. If there are no compliance periods that end in the quarter, the permittee must include a statement to that effect;

(2) If one or more compliance periods end in the quarter, the permittee shall identify each operating month in the calendar quarter where your EGU violated the applicable CO_2 emission standard;

(3) If one or more compliance periods end in the quarter and there are no violations for the affected EGU, the permittee shall include a statement indicating this in the report;

(4) The percentage of valid operating hours in each 12-operating-month compliance period described in (1) above (*i.e.*, the total number of valid operating hours (as defined in 40 CFR 60.5540a(a)(1) (Condition 5.23)) in that period divided by the total number of operating hours in that period, multiplied by 100 percent);

(5) Consistent with 40 CFR 60.5520a and Table 1 of NSPS Subpart TTTTa (Condition 3.15), the CO_2 emissions standard with which the affected EGU must comply; and

(6) Consistent with 40 CFR 60.5520a (Condition 3.15), an indication whether or not the hourly gross or net energy output ($P_{gross/net}$) values used in the compliance determinations are based solely upon gross electrical load.

(c) In the final quarterly report of each calendar year, the permittee shall include the following:

(1) Consistent with 40 CFR 60.5520a (Condition 3.15), gross energy output or net energy output sold to an electric grid, as applicable to the units of your

emission standard, over the four quarters of the previous calendar year; and

(2) The potential electric output of the EGU.

(Ref.: 40 CFR 60.5555a(a), Subpart TTTTa)

6.18 For Emission Point AA-001, the permittee shall submit all electronic reports required under Condition 6.1 using the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool provided by the Clean Air Markets Division in the Office of Atmospheric Programs of EPA.

(Ref.: 40 CFR 60.5555a(b), Subpart TTTTa)

6.19 For Emission Point AA-001, the permittee shall comply with the following:

(a) For affected EGUs under 40 CFR 60 Subpart TTTTa that are also subject to the Acid Rain Program, the permittee shall meet all applicable reporting requirements and submit reports as required under 40 CFR 75, Subpart G.

(b) The permittee shall comply with the following:

(1) For all newly-constructed affected EGUs under 40 CFR 60 Subpart TTTTa that are also subject to the Acid Rain Program, the permittee shall begin submitting the quarterly electronic emissions reports described in paragraph (A) in accordance with 40 CFR 75.64(a), i.e., beginning with data recorded on and after the earlier of:

(i) The date of provisional certification, as defined in 40 CFR 75.19(a)(3); or

(ii) 180 days after the date on which the EGU commences commercial operation (as defined in 40 CFR 72.2).

(2) For reconstructed or modified units, reporting of emissions data shall begin at the date on which the EGU becomes an affected unit under this subpart, provided that the ECMPS Client Tool is able to receive and process net energy output data on that date. Otherwise, emissions data reporting shall be on a gross energy output basis until the date that the Client Tool is first able to receive and process net energy output data.

(c) If any required monitoring system has not been provisionally certified by the applicable date on which emissions data reporting is required to begin under paragraph (b), the maximum (or in some cases, minimum) potential value for the parameter measured by the monitoring system shall be reported until the required certification testing is successfully completed, in accordance with 40 CFR 75.4(j) of this chapter, 40 CFR 75.40(b) of this chapter, or section 2.4 of Appendix D to Part 75 of this chapter (as applicable). Operating hours in which CO_2 mass

emission rates are calculated using maximum potential values are not "valid operating hours" (as defined in 40 CFR 60.5540a(a)(1) (Condition 5.23) and shall not be used in the compliance determinations under 40 CFR 60.5540a (Condition 5.23).

(Ref.: 40 CFR 60.5555a(c), Subpart TTTTa)

6.20 For Emission Point AA-001, the reports required under Conditions 6.16 and 6.19(a) shall be submitted by:

(a) The person appointed as the Designated Representative (DR) under 40 CFR 72.20; or

(b) The person appointed as the Alternate Designated Representative (ADR) under 40 CFR 72.22; or

(c) A person (or persons) authorized by the DR or ADR under 40 CFR 72.26 to make the required submissions.

(Ref.: 40 CFR 60.5555a(d), Subpart TTTTa)

6.21 For Emission Points AA-005, AA-006, and AA-007, the permittee shall submit an initial report before startup and subsequent semi-annual reports in accordance with Condition 6.1(b) of leaks detected through the AVO monitoring plan as well as all repairs made to the fugitive sources. If no leaks are detected and no repairs are made, the permittee shall instead submit a negative declaration.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.22 For Emission Points AA-008 and AA-009, the permittee shall submit semi-annual reports in accordance with Condition 6.1(b) of the results of the Method 22 inspections performed during the reporting period as required by Condition 5.33 and mass balance records as required by Condition 5.34.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.23 For Emission Points AA-010, AA-011, AA-012, and AA-013, the permittee shall submit semi-annual reports in accordance with Condition 6.1(b) of the monthly inspections and the throughput records in accordance with Condition 6.1(b).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

APPENDIX H

Preliminary Determination (“Statement of Basis”)

Pre-Construction Review

and

Preliminary Determination

of Approval for

Entergy Mississippi LLC, Traceview Advanced Power Station

Facility No. 1720-00100

Technical Review
by
Thomas Parker

Air Quality Analysis
By
Preston Bradley

July 10, 2026

I. General Information

Entergy Mississippi LLC "Entergy", Traceview Advanced Power Station (TAPS), located at 1972 W County Line Road, Ridgeland, Mississippi 39157, (972) 743-9649 (Jeremy Halland, Environmental Project Services Manager), has submitted a complete air permit application for a Prevention of Significant Deterioration (PSD) Construction Permit to construct a greenfield 1x1 combined cycle power plant.

II. Project Description

Entergy's proposed TAPS will be a new 750 megawatt (MW) natural gas fired 1x1 combined cycle base-load power plant.

Combustion Turbine, Duct Burner, and Steam Turbine Operations

The power generation equipment proposed for the TAPS includes a Mitsubishi Model M501JAC Combustion Turbine (CT) equipped with supplementary-fired duct burners and a Heat Recovery Steam Generator (HRSG). To boost the thermal efficiency of the CT, the combustion air fed to the CT compressor can be saturated with water in an evaporative cooler at various times, predominantly during warm weather conditions. In addition to power from a generator turned by the CT shaft, power is produced by a steam turbine generation which is fed steam generated in the HRSG. Final condensation of steam exiting the steam turbine is accomplished using air-cooled condensers. No cooling towers will be present at the TAPS. At the 59° F ISO design case, the TAPS 1x1 combined cycle unit will have an efficient gross heat rate of 6,396 Btu/kWh-HHV, which equates to a relatively high net thermal efficiency of 51.8%. The maximum firing rates of the CT and duct burner are 4,120 million (MM) Btu/hr-HHV, and 863 MMBtu/hr-HHV, respectively, at a cold weather ambient temperature firing condition of 10° F. The CT and duct burners will be permitted to operate continuously (8,760 hr/yr). Numerous performance scenarios are presented in Table A-2 in Appendix A of the Prevention of Significant Deterioration Construction Permit Application and associated emissions have been calculated for each operating scenario.

The CT and duct burner combustion flue gas exits the main stack after passing through the emission control equipment (Emission Point AA-001). Proposed emission controls for the flue gas out of the main stack include an ammonia-based Selective Catalytic Reduction (SCR) system to reduce NO_x emissions and a catalytic oxidation unit to reduce CO and VOC emissions. Emissions of GHGs are limited by using natural gas as a fuel and installing a power generation system with high thermal efficiency.

Although ammonia (NH_3) is not a regulated pollutant under Mississippi's EPA-Approved State Implementation Plan (SIP), the ammonia slip language and associated NH_3 emission limitations were added to the PSD Construction Permit after internal review of a recommendation received during the public comment period for TAPS. For Emission Point AA-001, the facility has proposed to operate the SCR system in a manner that ensures ammonia slip (defined as the emission of unreacted ammonia to the atmosphere) is minimized while maintaining compliance with all applicable NO_x emission limitations.

TAPS will maintain control of the ammonia injection system and associated operating parameters to ensure that ammonia slip in the HRSG exhaust stream does not exceed 10 ppmvd at 15% O_2. To accurately monitor compliance with the proposed NH_3 emission limitations, TAPS will utilize dual-stream NO_x Continuous Monitoring Systems (CEMS) to provide continuous measurement of ammonia slip and minimize any additional environmental impacts from Emission Point AA-001.

Lubrication Oil Recirculation Systems

The new CT and steam turbine will each be equipped with a dedicated lubrication system. Lubrication oil will be circulated through each turbine's machinery from the system's oil sumps. The oil sumps will be equipped with a vent that will be controlled by an oil mist eliminator. Emissions from the oil mist eliminators are based on lube oil replacement rates for similar units equipped with mist eliminators. Both VOCs and particulate matter (PM) are expected to be emitted from the CT lube oil vent (Emission Point AA-008) and the steam turbine lube oil vent (Emission Point AA-009). The lube oil vents will be permitted to operate continuously (8,760 hr/yr).

Natural Gas System and Dewpoint Heater Operations

Pipeline quality natural gas will be delivered to the site via pipeline where it is metered and piped to the natural gas-fired units. To prevent liquid droplets from entering the CT, the natural gas fuel to the CT will be indirectly heated in a 5.01 MMBtu/hr natural gas-fired dewpoint heater (Emission Point AA-004). The dewpoint heater will be permitted to operate continuously (8,760 hr/yr).

Combined Cycle Unit Startup/Shutdown Operations

Startup/Shutdown (SU/SD) of the proposed combined cycle unit will occur infrequently as the TAPS will be a base load power plant. The startup period is defined as the period beginning when the CT receives a "turbine start" signal and an initial flame detection signal is recorded in the plant's control system and ending when the CT output reaches minimum sustainable load (50% load), which is typically the point at which the unit reaches the lean pre-mix operating mode. The shutdown period is defined as the period beginning when the CT receives a "turbine stop" command and the generator output drops below the minimum stable load (50% load) and ending when a flame detection signal is no longer recorded in the plant's control system. SU/SD emissions from the combined cycle unit are emitted from the main stack (Emission Point AA-001) and are accounted for in the annual emission limits for this point source. The SCR and catalytic oxidation units will be coming up to temperature and not fully operational during SU/SD; therefore, SU/SD emissions are not controlled.

Higher-than-normal emissions from the main stack (Emission Point AA-001) may occur during CT tuning and optimization maintenance activities. In addition to CT optimization during the commissioning period, the CT's fuel system requires periodic tuning, including after major overhauls, to maintain compliance with manufacturer's specifications for emissions and combustion dynamics. The turbine tuning is conducted across the combustor's load range and according to manufacturer recommendations to minimize NO_x and

CO production while ensuring combustor stability. During CT tuning and optimization activities, the combustion turbine CO and NO_x emissions will be limited to the same levels as SU/SD.

Diesel-fired Emergency Internal Combustion Engines

The TAPS is proposing to have two emergency diesel-fired Internal Combustion (IC) engines. The engines will be limited to 100 hr/yr of operation or less in non-emergency operating modes due to the engines' emergency classification status. The engines will not be constrained by an operating limit for legitimate emergency operating modes.

One emergency diesel-fired IC engine powers a 2,180-kilowatt (kW) emergency standby generator. The engine is a Mitsubishi Model S16R-Y2PTAW2-1 with a 2,923-brake horsepower (BHP) rating. The engine will only fire Ultra Low Sulfur Diesel (ULSD) with a maximum sulfur content of 15 parts per million by weight (ppmw). The engine will be a USEPA-certified Tier 2 engine.

The other emergency diesel-fired IC engine powers a 235-kW emergency firewater pump. The engine is a John Deere Model 6068HFC48A with a 282 BHP rating. The engine will only fire ULSD with a maximum sulfur content of 15 ppmw. The engine will be a USEPA-certified Tier 3 engine.

Diesel, Natural Gas Condensate, and Ammonia Storage Tanks

The TAPS is proposing to have two fixed-roof diesel storage tanks. Each tank will provide ULSD fuel to one of the two emergency IC engines. The tank that will supply ULSD to the emergency generator is a 99-barrel (bbl) (4,150-gallon) white, horizontal fixed-roof tank (Emission Point AA-010). The tank that will supply ULSD to the emergency firewater pump is a 12-bbl (500-gallon) white, horizontal fixed-roof tank (Emission Point AA-011).

The TAPS is proposing to have two 400-gallon fixed-roof natural condensate tanks (Emission Points AA-012 and AA-013). These tanks will knock out and collect natural gas condensate to prevent it from entering the CT in rare occurrences when condensate is present in the incoming pipeline natural gas.

Ammonia will be stored in a 40,000-gallon pressurized tank with no routine air emissions. Therefore, no emission point ID is assigned to the ammonia storage tank.

Fugitive Emissions

The proposed site will have piping in natural gas, diesel, and ammonia service. Potential fugitive emissions from piping components (valves, flanges, connectors, pumps, open-ended lines, and relief valves) are calculated based on a count of components and emissions factors associated with the liquid or gas/vapor service of the components. The fugitive emission sources are defined by their service as follows:

- Emission Point AA-005 – addresses fugitive emissions of equipment components in natural gas service.

- Emission Point AA-006 – addresses fugitive emissions of equipment components in ammonia service.
- Emission Point AA-007 – addresses fugitive emissions of equipment components in diesel service.

III. Federal Regulations

40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

This subpart establishes standards and compliance schedules for manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE). Emission Points AA-002 and AA-003 meet the definition of new, stationary RICE. As such, these emissions points **are subject to** this subpart.

40 CFR 60, Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines

This subpart establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification, or reconstruction after December 13, 2024. Emission Point AA-001 meets the definition of a new, stationary combustion turbine under this subpart and as such, **is subject to** this subpart.

After requesting clarification on the part-load limitations provided in Table 1 of Subpart KKKKa, Entergy received confirmation from the EPA Region 4 to limit the part-load NOx standard for Emission Point AA-001 to 96 ppmvd at 15% O2 when the combustion turbine operates at < 70% of the base load.

40 CFR 60, Subpart TTTTa – Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units

This subpart establishes emission standards and compliance schedules for the control of greenhouse gas (GHG) emissions from a coal-fired steam generating unit or integrated gasification combined cycle facility (IGCC) that commences modification after May 23, 2023. This subpart also establishes emission standards and compliance schedules for the control of GHG emissions from a stationary combustion turbine that commences construction or reconstruction after May 23, 2023. An affected coal-fired steam generating unit, IGCC, or stationary combustion turbine shall, for the purposes of this subpart, be referred to as an affected electric generating unit (EGU). Emission Point AA-001 meets the definition of a new, stationary combustion turbine under this subpart and as such, **is subject to** this subpart.

40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

This subpart establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations. Emission Points AA-002 and AA-003 meet the definition of new, stationary RICE located at an area source of HAP in which construction was commenced after June 12, 2006. As such, these emission points **are subject to** this subpart. However, compliance with 40 CFR 63, Subpart ZZZZ will be achieved by complying with all applicable requirements under 40 CFR 60, Subpart IIII since these engines are considered "new or reconstructed RICE located at an area source". As such, no further requirements apply for such engines under 40 CFR 63, Subpart ZZZZ.

IV. Best Available Control Technology (BACT) Analysis

Table 1. PSD Applicability

Pollutant	Project-Related Increases (TPY)	Significant Emission Rate (TPY)	Netting Analysis Required? (Yes/No)	Contemporaneous Emissions (TPY)	Total Net Emissions (TPY)	PSD Review Required? (Yes/No)
PM	124.40	25	No	0.00	124.40	Yes
PM_{10}	166.59	15[1]	No	0.00	166.59	Yes
$PM_{2.5}$	166.59	10	No	0.00	166.59	Yes
NO_X[1,2]	222.84	40	No	0.00	222.84	Yes
SO_2[1]	30.37	40	No	0.00	30.37	No
VOC[2]	403.88	40	No	0.00	403.88	Yes
CO	1198.32	100	No	0.00	1198.32	Yes

[1] As of April 28, 2011, both NO_x and SO_2 are precursors for $PM_{2.5}$. Therefore, if NO_x or SO_2 exceed 40 TPY, the project is considered major for $PM_{2.5}$.

[2] Both NO_x and VOC are considered precursors for ozone with a significant emission rate of 40 TPY each.

In accordance with PSD requirements listed in 40 CFR 51.166(j) and 52.21(j) and 11 Miss. Admin. Code Pt. 2, Ch. 5. Rule 5.1, a new major stationary source must apply BACT for the control of each regulated air pollutant emitted in significant quantities. Therefore, Entergy completed a BACT analysis for VOC, PM, NO_x, and CO.

BACT is defined in the federal PSD regulation at 40 CFR 52.21(b)(12) as follows:

> Best available control technology (BACT) means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR 60, 61, or 63. If the administrator determines the technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standards shall, to the degree possible, set for the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.

The selection of BACT requires consideration of cost, environmental, and energy impacts. In the USEPA's draft document New Source Review Workshop Manual (USEPA, October 1990), USEPA recommends a "top-down" approach when evaluating commercially available and demonstrated air pollution control technologies for BACT. Note that a top-down approach is suggested by policy and not by regulation. For certain small emission sources, the BACT demonstration may depend on what is typically used in industrial applications as detailed in the RBLC information in Appendix C of the PSD application. According to the definition of BACT, if a facility is subject to a NSPS or NESHAP standard, the selected BACT must never result in an emission limit that is less stringent than any applicable NSPS and/or NESHAP rule.

The first step in the "top down" approach is to determine, for the emissions unit and the PSD pollutant in question, the most stringent demonstrated control technology available for a similar or identical source or source category. If it can be shown that this level of control is technically or economically infeasible for this project, the next most stringent level of control is then determined and similarly evaluated. This process continues until a control technology and associated emission level is determined that cannot be eliminated by any technical or economic infeasibility. The "top-down" approach has been employed in this analysis to evaluate available pollution controls for the proposed TAPS. The following sections describe the pollutant-by-pollutant BACT for all emissions units at the proposed Entergy facility.

A. Gas Turbine/Duct Burner Combustion Main Stack (Emission Point AA-001)

The power generation equipment proposed for the TAPS includes a Mitsubishi Model M501JAC CT equipped with supplementary-fired duct burners and an HRSG. The BACT demonstration for the CT/duct burner main stack is presented as follows for each NSR regulated pollutant emitted from Emission Point AA-001.

(1) Nitrogen Oxides (NO_x) BACT Analysis

NO_x is generally formed during combustion by thermal oxidation of nitrogen in the combustion air (thermal NO_x) and the oxidation of nitrogen in the fuel (fuel-bound NO_x). Natural gas contains relatively small amounts of fuel-bound nitrogen and NO_x formation through the fuel NO_x mechanism is expected to be insignificant. The main variables affecting NO_x generation in the CT/duct burner installations are temperature, the availability of nitrogen, the availability of oxygen, and the extent of contact between nitrogen and oxygen during the combustion process. NO_x formation is maximized in zones of high combustion temperatures.

Step 1: Identify Available Control Technologies

Available NO_x control technologies for CT/duct burner installations include:

- **Wet Injection**: The injection of water directly into the combustion chamber lowers the flame temperature by absorbing heat necessary to vaporize the water and raise the temperature of the steam to that of the combustion temperature. Steam injections utilize the same principle, although heat can only be absorbed by the steam in raising the steam's temperature to that of combustion. Injection of either water or steam results in lower "thermal NO_x" formation. This technology can achieve a flue gas NO_x concentration of 42 ppmvd at 15% O_2.

- **Dry Low-NO_x Combustor/Burner Design**: One method of reducing "thermal NO_x" formation is by utilizing a dry low-NO_x (DLN) combustor that premixes the air and fuel prior to entering the primary combustion chamber. This allows for a lower flame temperature due to the homogeneity of the air/fuel mix and the lack of a flame front. Advanced combustor design also includes reducing the combustion zone residence time and limiting the oxygen available to combine with nitrogen to form NO_x. Entergy's proposed CT and duct burner include DLN combustors. This technology can achieve a flue gas NO_x concentration between 9 and 25 ppmvd at 15% O_2.

- **Selective Catalytic Reduction (SCR)**: SCR is similar to SNCR except that with SCR, a catalyst is present during the chemical reactions that produce nitrogen and water vapor from NO_x. Like SNCR, SCR requires ammonia injection to participate in the NOx

reduction chemical reactions. Entergy proposes utilizing SCR for the CT/duct burner installation. By itself, this technology can achieve a flue gas NO_x concentration between 2 and 3 ppmvd at 15% O_2. In conjunction with DLN burners, this technology can achieve a flue gas NO_x concentration of 2 ppmvd at 15% O_2.

- **Selective Non-Catalytic Reduction (SNCR)**: SNCR is a process in which ammonia or urea is injected directly into the exhaust gas stream to produce nitrogen and water vapor from NO_x. The chemical reactions take place without the presence of a catalyst, and due to reaction temperature considerations, the ammonia or urea injection must occur in a location where the exhaust gas temperatures are between approximately 1,600° F and 2,000° F. The exhaust gas temperature range for the proposed units does not allow SNCR to be a feasible control technology, as the exhaust temperature for this project will be considerably below this range.

- **Non-Selective Catalytic Reduction (NSCR)**: NSCR is a process that utilizes a catalyst to produce nitrogen and water vapor from NO_x without the presence of a reducing agent. This technology has not yet been developed for large-scale combustion turbine applications and is currently only utilized in reciprocating internal combustion engines. Thus, NSCR is considered technically infeasible for this application.

Step 2: Eliminate Technically Infeasible Options

Two available NO_x control technologies were determined not to be technically feasible. As described above, these technically infeasible NO_x control technologies include SNCR and NSCR.

Step 3: Rank Remaining Options by Control Effectiveness

The available and technically feasible NO_x control technologies for CT/duct burner installations are ranked in order in Table 1.1.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

Entergy proposes to accept the top control technology in Table 1.1. The CT/duct burner system will utilize dry low-NO_x combustors and an ammonia-based SCR control system which will yield a vendor-guaranteed flue gas NO_x concentration of 2.0 ppmvd NO_x at 15% O_2 (24-hr-average basis). A review of RBLC confirms this control system represents the top available and technically

feasible NO_x control technology for CT/duct burner systems. Of the 50 RBLC entries with a PSD BACT limit of 2.0 ppmvd at 15% O_2, 22 of those entries had a primary limit averaging period 24-hr which was the most common averaging period.

Table 1.1: CT/DB NO_x Technically Feasible Control Options		
Ranking	**CT/DB NO_X Control Technology**	**NO_X Concentration (PPMVD at 15% O_2)**
1	SCR + Dry Low NO_X Combustors/Burners	2.0
2	SCR	2 – 3
3	Dry Low NO_x Combustors/Burners	9 – 25
4	Water/Steam Injection	42

(2) Carbon Monoxide (CO) BACT Analysis

Carbon monoxide forms in combustion devices as a product of incomplete combustion. Production of CO results when there is a lack of oxygen and insufficient residence time at high enough temperatures to complete the final step in oxidation. Controlling these factors to decrease CO, however, also tends to result in increased emissions of NO_x. Conversely, a lower NO_x emission rate achieved through flame temperature control may result in higher levels of CO emissions. Thus, a balance must be established, whereby the flame temperature, residence time and excess oxygen are set to achieve the lowest NO_x emission rate possible to comply with BACT while keeping CO emissions to an acceptable level.

Step 1: Identify Available Control Technologies

The two available CO control options for CT/duct burner installations include:

- Combustion Controls/Good Combustion Techniques, and
- Catalytic Oxidation Add-on Control Device.

CO combustion control performance (good combustion techniques) is a function of available oxygen, combustion temperature, turbulence, and residence time. Formation of CO is a result of incomplete combustion of the fuel. Adequate fuel residence time and high temperature in the combustion zone can ensure minimal CO formation. A properly designed combustion system is effective at limiting CO formation by maintaining the optimum combustion zone temperature and amount of excess oxygen. However, the addition of excess air and maintenance of high

combustion temperatures for control of CO emissions may lead to increased NO_x emissions. Consequently, typical practice is to design the combustion system such that CO emissions are reduced as much as possible without causing NO_x levels to significantly increase.

The only add-on control device that is commercially available for controlling CO emissions from CT/duct burner installations is an oxidation catalyst. The catalyst lowers the activation energy necessary for CO to react with available oxygen in the exhaust to produce CO_2. Oxidation catalysts operate optimally at a temperature range of 500° F to 700° F and can also reduce VOC emissions.

Step 2: Eliminate Technically Infeasible Options

The two available CO control technologies for CT/duct burner installations are both technically feasible. Entergy is proposing to employ both CO control technologies for this CT/duct burner system.

Step 3: Rank Remaining Options by Control Effectiveness

The top CO control technology is identified as good combustion techniques along with an add-on catalytic oxidation. In conjunction, these two technologies will result in a flue gas CO concentration of 2.0 ppmvd CO at 15% O_2 (24-hr-average basis).

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top CO control technology.

Step 5: Select BACT

The CT/duct burner system will utilize good combustion techniques and an add-on catalytic oxidation control system. This will yield a vendor-guaranteed flue gas CO concentration of 2.0 ppmvd CO at 15% O_2 (24-hr-average basis). Based on a review of RBLC, this control system represents the "top" available and feasible CO control technology for CT/duct burner systems. There were 108 RBLC entries with a primary CO limit ranging up to 50 ppmvd with the majority of limits set at 2.0 ppmvd. As a result, catalytic oxidation with a CO performance level of 2.0 ppmvd CO at 15% O_2 (24-hr-average basis) is selected as BACT for CO.

(3) Volatile Organic Compounds (VOC) BACT Analysis

Like CO, VOC emissions result from incomplete combustion. VOC is unburned and emitted from the stack when there is a lack of oxygen and insufficient residence time at high enough temperatures to complete the final step in oxidation.

Step 1: Identify Available Control Technologies

Similar to CO, there are two available VOC control options for CT/duct burner installations:

- Combustion Controls/Good Combustion Techniques, and
- Catalytic Oxidation Add-on Control Device.

Step 2: Eliminate Technically Infeasible Options

The two available VOC control technologies for CT/duct burner installations identified above are both technically feasible. Entergy is proposing to employ both of these VOC control technologies for this CT/duct burner system.

Step 3: Rank Remaining Options by Control Effectiveness

The top VOC control technology is identified as good combustion techniques along with an add-on catalytic oxidation. In conjunction, these two technologies will result in a flue gas VOC concentration of 1.5 ppmvd at 15% O_2 (annual-average basis).

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top VOC control technology.

Step 5: Select BACT

The CT/duct burner system will utilize good combustion techniques and a catalytic control system which will yield a vendor-guaranteed flue gas VOC concentration of 1.5 ppmvd VOC at 15% O_2 (annual-average basis). Based on a review of RBLC, this control system represents the top available and feasible VOC control technology for CT/duct burner systems. As a result, catalytic oxidation with a VOC performance level of 1.5 ppmvd VOC at 15% O_2 (annual-average basis) is selected as BACT for VOC. Because the "top" control technology is selected, no further VOC BACT analysis is required.

(4) Particulate Matter (PM_{10} and $PM_{2.5}$) BACT Analysis

PM emissions, which include both PM_{10} and $PM_{2.5}$ emissions, from combined cycle turbine/duct burner installations are the result of unburned trace constituents in the fuel, unburned hydrocarbons, and the inlet air supply that may contain dust particles. PM emissions can also result from the formation of sulfates and nitrates, which are formed when certain sulfur-oxide and nitrogen-oxide compounds react with ammonia. The following section describes control technologies that can be applied to reduce PM emissions from this CT/duct burner installation.

Step 1: Identify Available Control Technologies

The control technologies that can potentially be used to control PM emissions include:

- Fabric Filter (Baghouse);
- Electrostatic Precipitator (ESP);
- Use of Clean Gaseous Fuels (e.g., pipeline quality natural gas); and
- Good Combustion Practices

Step 2: Eliminate Technically Infeasible Options

The two available add-on PM control technologies identified above, baghouses and ESPs, were determined not to be technically feasible. The concentration of PM in the flue gas from a CT/duct burner installation is low. Further, the sizes of particles in the flue gas stream are very small. Due to the high volumetric flow rates and low particulate concentrations in the exhaust stream from the CT/duct burner installation, use of a baghouse or ESP is considered technically infeasible and are eliminated from further BACT consideration. There are no known existing natural gas-fired CT/duct burner installations that utilize add-on PM control equipment.

Step 3: Rank Remaining Options by Control Effectiveness

The use of good combustion practices and clean, gaseous fuels are both technically feasible options. The use of both options is what is selected for BACT for this installation.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

By virtue of firing clean-burning pipeline natural gas, PM species (PM_{10} and $PM_{2.5}$) are emitted in small quantities from the CT/duct burner. The use of a catalytic oxidation system results in additional PM emissions, but this tradeoff is acceptable to further control emissions of VOC and CO. The expected flue gas PM concentration exiting the stack will still be very dilute. The selected PM BACT is the use of low sulfur pipeline natural gas and good combustion practices such that PM emissions will be limited to 0.0095 lb PM/MMBtu (annual-average basis). Good combustion practices include proper CT/duct burner design, performing recommended maintenance, and proper operation of the system to promote efficient combustion.

(5) Sulfuric Acid Mist (SAM) BACT Analysis

Emissions of SO_2 occur from the oxidation of sulfur in the gaseous fuel fired in the CT/duct burner system. Most fuel sulfur is converted to SO_2. A portion of the SO_2 will be further converted to H_2SO_4, also referred to as SAM, which will exit from the main stack.

Step 1: Identify Available Control Technologies

The two available control technologies to control SAM emissions include:

- Wet scrubbing of SAM, and
- Use of clean burning, low sulfur natural gas fuel.

Step 2: Eliminate Technically Infeasible Options

Because the sulfur content in pipeline natural gas is extremely low, the SAM concentration in the flue gas will be very dilute. For this reason, wet scrubbing of SAM emissions is technically infeasible and is eliminated from BACT consideration. Additionally, wet scrubbing would have the negative impact of generating an additional wastewater stream.

Step 3: Rank Remaining Options by Control Effectiveness

The only available and technically feasible SAM control technology is the use of clean-burning, low sulfur natural gas fuel.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

The proposed BACT for SAM emissions includes minimizing the formation of SO_2 and H_2SO_4 by using pipeline-quality natural gas with sulfur content not exceeding 1.0 grains S/100 scf on a short-term basis and not exceeding 0.5 grains S/100 scf on an annual-average basis. Additionally, by employing a highly efficient combined cycle power generation system, the quantity of natural gas fuel required per unit of power output is minimized to the extent reasonably possible.

(6) Greenhouse Gas (GHG) BACT Analysis

For the CT/duct burner system, GHG emissions will be released from the main stack in the form of CO_2, methane (CH_4), and nitrous oxide (N_2O). The primary GHG is CO_2, and the combined GHGs are expressed as CO_2 equivalents (CO_2e) using the procedure in the federal GHG reporting rule found at 40 CFR 98.

Important Note: Since this CT/duct burner GHG BACT demonstration was originally submitted to the MDEQ on June 11, 2024, EPA promulgated a new NSPS GHG regulation which impacts this installation. In the May 9, 2024, Federal Register, USEPA published 40 CFR 60 Subpart TTTTa (NSPS TTTTa), which establishes GHG standards for Stationary Combustion Turbine Electric Generating Units built after May 23, 2023. NSPS TTTTa implements a phased-in GHG control approach. The new regulation focuses only on CO_2 emissions and not any other GHG constituents. USEPA's reason for phasing in GHG limits for this source category was that some of the necessary GHG control technologies are not currently commercially available. For Entergy's proposed new base load CT/duct burner facility, the applicable phased-in CO_2 emission limits from Table 1 of NSPS TTTTa include:

- From the start of operation until December 31, 2031, a CO_2 emissions performance level of less than 800 lb CO_2/MWh gross energy output (12-operating month average).

- For all operations after December 31, 2032, a CO_2 emissions performance level of less than 100 lb CO_2/MWh gross energy output (12-operating month average).

In developing NSPS TTTTa, USEPA recognized that the infrastructure to support Carbon Capture Sequestration (CCS) is not currently available in all geographical areas. For this reason, in the preamble to the NSPS TTTTa rule in the May 9, 2024, *Federal Register*, USEPA described its plan to structure NSPS TTTTa to have two phased in GHG control stages for base load combined cycle power plants:

> "The BSER for base load combustion turbines includes two components to be implemented initially in two phases. The first component of the BSER for base load combustion turbines is highly efficient generation (based on the emission rates that the best performing units are achieving) and the second component for base load combustion turbines is utilization of CCS with 90 percent capture. Recognizing the lead time that is necessary for new base load combustion turbines to plan for and install the second component of the BSER (*i.e.*, 90 percent CCS), **including the time that is needed to deploy the associated infrastructure (CO_2 pipelines, storage sites, *etc.*)**, the USEPA is finalizing a second phase compliance deadline of January 1, 2032, for this second component of the standard."

Step 1: Identify Available Control Technologies

The available control technologies to lower GHG emissions from CT/duct burner installations include:

- Carbon Capture and Sequestration (CCS);

- Combustion of fuel containing hydrogen; and
- Operating a system that has a high thermal efficiency with relatively low-carbon natural gas fuel.

Research has been performed by the United States Department of Energy and others to limit GHG emissions from combined cycle units by employing CCS. In a CCS system, CO_2 emissions are captured, scrubbed, condensed, and routed via pipeline to an underground formation where the CO_2 is stored indefinitely (sequestered). Once the CO_2 is separated from the flue gases, it must be transported to a suitable sequestration or storage facility. Storage opportunities typically would include disposing of the CO_2 in a Class 2 well used for enhanced oil recovery or disposing of the CO_2 in a Class 6 well which is used to inject CO_2 into deep rock formations, as part of a process called Geologic Sequestration. Using CO_2 for Enhanced Oil Recovery is unstable because the demand for the CO_2 fluctuates significantly depending on the price of oil and natural gas. Therefore, it is not a reliable means for disposing of CO_2.

There has been discussion over whether CCS technology is currently commercially available for CO_2 emissions control in all geographic regions. In some specific geographic locations, the technology and infrastructure to support CCS is present for combined cycle power plants; however, this is not the case for the proposed TAPS. For a top-down BACT demonstration, as presented below, the first step is to evaluate whether a specific control technology is "available." In USEPA's 1990 New Source Review Workshop Manual on page B.5, USEPA states that "available control options are those air pollution control technologies or techniques with a practical potential for application to the emissions unit and the regulated pollutant under evaluation." The determination of BACT "availability" must be made for a specific emissions unit in a specific geographic location. In the GHG BACT demonstration for the proposed TAPS combined cycle combustion turbine emission unit, EML contends that the proposed site currently lacks the required infrastructure to make CCS a viable control technology option in the near future. For example, this is no CO_2 pipeline near the Proposed TAPS site and, to date, there are no Class 6 carbon sequestration wells permitted in the state of Mississippi. Therefore, this means CCS in not "available" at the current time for the TAPS based on USEPA's description of "available" BACT.

The TAPS combined cycle system is being designed such that a CCS retrofit could be accommodated in the future. For these reasons, CCS is rejected as GHG BACT for this installation. Entergy will consider CCS when planning for operation of the facility to meet the NSPS TTTTa CO_2 emission limit that becomes effective on January 1, 2032.

The use of hydrogen as a fuel reduces CO_2 emissions because the product of hydrogen combustion is water. Studies by CT manufacturers indicate that with current CT technology, the quantity of hydrogen fuel a CT can accommodate is approximately 30%. The remaining balance of the fuel fired must be natural gas. At the time the proposed CT/duct burner installation commences operation, the infrastructure to partially fire hydrogen fuel is not readily available (e.g., there is no hydrogen pipeline near the site to obtain hydrogen fuel). For this reason, hydrogen combustion is rejected as GHG BACT for this installation. Entergy will consider hydrogen combustion when planning for operation of the facility to meet the NSPS TTTTa CO_2 emission limit that becomes effective on January 1, 2032.

GT based combined cycle power plants fired with natural gas fuel represent the most thermally efficient fossil fuel-fired EGUs available in the commercial marketplace. The proposed TAPS combined cycle unit represents state-of-the art equipment in terms of thermal efficiency. This high level of thermal efficiency is achieved by employing a highly efficient CT, a highly efficient duct burner system, and a highly efficient HRSG, all deployed in a highly efficient combined cycle configuration. Combined-cycle units operate based on a combination of two thermodynamic cycles: the Brayton and the Rankine cycles. The combustion turbine operates on the Brayton cycle, while the HRSG and steam turbine operate on the Rankine cycle. Combining the two thermodynamic cycles into a single-power generation system results in the high thermal efficiency associated with combined cycle power plants.

The most thermodynamically efficient way to generate electricity from a natural gas fuel source is by employing a combined cycle design. For commercially available fossil fuel-fired EGU technologies, the expected net thermal efficiency ranges from approximately 30% to 50% (HHV). A typical coal-fired Rankine cycle power plant has a base load net thermal efficiency of approximately 30% (HHV) at ISO conditions, while a modern natural gas-fired combined cycle unit has a base load net thermal efficiency at ISO conditions of approximately 50% (HHV). The TAPS combined cycle system exceeds these benchmarks. At the 59° F ISO design case, the TAPS combined cycle unit will have a net thermal efficiency of 51.82% (HHV). This thermal efficiency may degrade slightly over the life of the unit, but periodic maintenance will be performed to bring the unit back to optimal efficiency. The thermal efficiency will remain high enough that the TAPS EGU continuously complies with the NSPS TTTTa first-phase GHG control limit of less than or equal to 800 pounds CO_2/MWh of gross energy output (12-operating-month average basis).

In addition to the high-efficiency primary components of the combustion turbine, there are several other design features employed that improve the thermal efficiency of the TAPS combined cycle EGU. These design elements include, but are not limited to, employing insulation to prevent heat

loss, use of an evaporative cooler to saturate combustion air with water, and use of a blowdown heat recovery system.

Modern combustion turbines like the Mitsubishi M501JAC model have regularly scheduled maintenance programs. These maintenance programs are important to ensure reliable operation of the unit and to maintain optimal thermal efficiency. As the combustion turbine is operated, the unit experiences degradation and minor losses in thermal performance. The combustion turbine maintenance program helps restore the recoverable lost performance. The maintenance program schedule is determined by the number of hours of operation and/or turbine starts. There are three basic maintenance levels, commonly referred to as (1) combustion inspections, (2) hot gas path inspections, and (3) major overhauls. Combustion inspections are the most frequent of the maintenance cycles. As part of this maintenance activity, the combustors are tuned to restore efficiency to the combustion turbines. Other routine maintenance practices that ensure a high thermal efficiency is continuously achieved include, but are not limited to, minimizing steam leaks, minimizing air filtration, and periodic cleaning and maintenance of heat transfer surfaces.

Modern combustion turbines like the Mitsubishi M501JAC model have sophisticated instrumentation and controls to automatically control the operation of the combined cycle EGU. The digital-type control system is supplied with the combustion turbine. The distributed control system controls all aspects of the turbine's operation, including the fuel feed and burner operations, to achieve thermally efficient operation. The control system monitors the operation of the unit and modulates the fuel flow and turbine operation to achieve optimal thermal performance for full-load and partial-load conditions. The control system thereby enhances thermal efficiency and minimizes emissions of GHGs at all load conditions.

Step 2: Eliminate Technically Infeasible Options

All of the control options identified in Step 1 are technically feasible; however, at the time of this application, CCS and hydrogen combustion are not currently available GHG control options because of infrastructure limitations (see Step 1). These options may be available by the 2032 timeframe and will be re-evaluated later as required by NSPS Subpart TTTTa. The only remaining GHG control option at this juncture is building and operating a system that has high thermal efficiency while burning relatively low-carbon natural gas fuel.

Step 3: Rank Remaining Options by Control Effectiveness

Entergy is electing to implement the top available technology after eliminating unavailable and technically infeasible options. The remaining option, which is selected as GHG BACT, is building and operating a system that has high thermal efficiency while firing relatively low-carbon natural gas fuel.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

The remaining option for GHG BACT is to employ a CT/duct burner combined cycle system with high thermal efficiency that is fired by relatively low-carbon natural gas fuel. This is consistent with recent BACT determinations for combined cycle systems presented in USEPA's RBLC database as shown in Appendix C of the PSD application. The minimum acceptable GHG BACT limit of 800 lb CO_2/MWh gross power output is established by 40 CFR 60 Subpart TTTTa. This NSPS TTTTa CO_2 limit will represent GHG BACT for this installation. This selection will place Sawgrass in the group of the top performing combined cycle units identified in USEPA's RBLC database presented in Appendix C of the PSD application. Based on this, the proposed GHG BACT for the CT/duct burner system is to use natural gas fuel with an efficient power generation system with a GHG performance level of 800 pounds CO_2e/MWh of gross power output.

B. Diesel-fired Emergency Internal Combustion Engines (Emission Points AA-002 and AA-003)

The TAPS proposes to have two emergency diesel-fired IC engines. The engines will be limited to 100 hr/yr of operation or less in non-emergency operating modes due to the engines' emergency classification status. One emergency diesel-fired IC engine powers a 2,180-kW emergency standby generator (Emission Point AA-002). The engine is a Mitsubishi Model S16R-Y2PTAW2-1 with a 2,923 BHP rating. The other emergency diesel-fired IC engine powers a 235-kW emergency firewater pump (Emission Point AA-003). The engine is a John Deere Model 6068HFC48A with a 282 BHP rating. As required by regulation, the engines will only fire ULSD with a maximum sulfur content of 15 ppmw. The emergency standby generator is a Tier 2 USEPA-certified NSPS-compliant engine, while the emergency firewater pump is a Tier 3 USEPA-certified NSPS-compliant engine. Both are approved by regulation for emergency service operations.

(1) Nitrogen Oxides (NO_x) BACT Analysis

Step 1: Identify Available Control Technologies

The control technologies that are available for emergency diesel-fired IC engines include:

- Selective Catalytic Reduction (SCR);
- Selective Non-Catalytic Reduction (SNCR); and

- Use of an IC engine that is certified to meet the applicable NO_x emission limits in 40 CFR 60 Subpart IIII, the NSPS for Compression Ignition IC engines (NSPS Subpart IIII).

Step 2: Eliminate Technically Infeasible Options

Add-on NO_x controls, such as SCR and/or SNCR systems are not technically feasible for emergency engines because of the infrequent operation. It is difficult to operate add-on NO_x control systems for short periods of emergency operation. Total annual NO_x emissions from the two engines combined are very small and can be found in Tables A-8 and A-9 in Appendix A of the PSD application. Because of this, add-on NO_x controls are rejected as NO_x BACT for the two emergency engines.

Step 3: Rank Remaining Options by Control Effectiveness

The only available and technically feasible NO_x control technology is the use of an IC engine that is certified to comply with the applicable NO_x emission limits in NSPS Subpart IIII. This becomes the top option.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

The proposed NO_x BACT for the emergency engines is a Tier 2 or Tier 3 engine with NO_x performance levels specified in NSPS Subpart IIII. This corresponds to the NO_x limit for emergency service engines in 40 CFR 60, Subpart IIII, the NSPS for Compression Ignition Internal Combustion Engines. Both engines will be subject to and will comply with all applicable NSPS Subpart IIII NO_x requirements for certified engines that maintain an emergency classification. For the diesel-fired Emergency Standby Generator (Emission Point AA-002), NO_x BACT is proposed as the NSPS Subpart IIII NO_x performance level of 6.4 g NO_x/kWh for engines of this power rating. For the diesel-fired Emergency Firewater Pump (Emission Point AA-003), NO_x BACT is proposed as the Tier 3 NO_x performance level of 4.0 g NO_x/kWh for engines of this power rating.

(2) Carbon Monoxide (CO) BACT Analysis

The CO control technologies that are available include:

- Catalytic oxidation of CO and
- Good combustion practices using an IC engine that is certified to meet NSPS Subpart IIII CO emission limits.

Step 2: Eliminate Technically Infeasible Options

Both options identified above are technically feasible.

Step 3: Rank Remaining Options by Control Effectiveness

Catalytic oxidation provides the best control effectiveness, followed by use of an engine certified to meet applicable NSPS Subpart IIII CO emission limits.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

Although an add-on catalytic control system is technically feasible for the two subject emergency engines, the cost of controlling CO for this application is economically prohibitive. Total annual CO emissions from the two engines combined are very small and can be found in Tables A-8 and A-9 in Appendix A of the PSD application. This is due to engine operations being limited to 100 hr/yr/engine. For both engines, as shown in the control equipment cost calculations presented in Appendix D of the PSD application, the annualized cost for controlling CO emissions using a catalytic oxidizer exceeds $100,000 per ton of CO controlled. For this reason, catalytic oxidation is rejected as BACT for CO.

Step 5: Select BACT

The proposed CO BACT for the emergency engines is a manufacturer performance guarantee CO performance level using engines certified to meet NSPS Subpart IIII CO emission limits. Both engines will be subject to and will comply with all applicable NSPS Subpart IIII CO requirements for engines that maintain an emergency classification. For the diesel-fired Emergency Standby Generator (Emission Point AA-002), CO BACT is proposed as the Tier 2 CO performance level of 3.5 g CO/kWh for engines of this power rating. For the diesel-fired Emergency Firewater Pump (Emission Point AA-003), CO BACT is proposed as the Tier 3 CO performance level of 3.5 g CO/kWh for engines of this power rating.

(3) Volatile Organic Compounds (VOC) BACT Analysis

Step 1: Identify Available Control Technologies

The VOC control technologies that are available include:

- Catalytic oxidation of VOC and
- Good combustion practices using an IC engine that is certified to meet NSPS Subpart IIII VOC emission limits.

Step 2: Eliminate Technically Infeasible Options

Both options identified above are technically feasible.

Step 3: Rank Remaining Options by Control Effectiveness

Catalytic oxidation provides the best control effectiveness, followed by use of an engine certified to meet applicable NSPS Subpart IIII VOC emission limits.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

Although an add-on catalytic control system is technically feasible for the two subject emergency engines, the cost of controlling VOC for this application is economically prohibitive. Total annual VOC emissions from the two engines combined are very small and can be found in Tables A-8 and A-9 in Appendix A of the PSD application. This is due to engine operations being limited to 100 hr/yr/engine. For both engines, as shown in the control equipment cost calculations presented in Appendix D of the PSD application, the annualized cost for controlling VOC emissions using a catalytic oxidizer exceeds $100,000 per ton of VOC controlled. For this reason, catalytic oxidation is rejected as BACT for VOC.

Step 5: Select BACT

The proposed VOC BACT for the emergency engines is the use of Tier 2 or Tier 3-compliant engines with manufacturer guaranteed performance levels which are more stringent than the NSPS Subpart IIII requirements. Both engines will be subject to and will comply with all applicable NSPS Subpart IIII requirements for engines that maintain an emergency classification. For the diesel-fired Emergency Standby Generator (Emission Point AA-002), VOC BACT is proposed as the manufacturer's guaranteed VOC performance level of 0.56 g VOC/kWh. For the diesel-fired Emergency Firewater Pump (Emission Point AA-003), VOC BACT is proposed as the manufacturer's VOC performance level of 0.11 g VOC/kWh.

(4) Particulate Matter (PM_{10} and $PM_{2.5}$) BACT Analysis

Step 1: Identify Available Control Technologies

The control technologies that can potentially be used to control PM emissions include:

- Fabric Filter (Baghouse);
- Electrostatic Precipitator (ESP); and
- Good combustion practices using an IC engine that is certified to meet NSPS Subpart IIII PM emission limits.

Step 2: Eliminate Technically Infeasible Options

Because operation of the two engines is so infrequent (< 100 hr/yr), and the PM concentration in the engine flue gas is so dilute, it is technically infeasible to use PM add-on control equipment such as a fabric filter or ESP.

Step 3: Rank Remaining Options by Control Effectiveness

The only remaining option is employing good combustion practices using an IC engine that is certified to meet NSPS Subpart IIII PM emission limits. This becomes the top technology.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

The proposed PM BACT for the emergency engines is the use of Tier 2 or Tier 3 engine PM performance level using engines certified to meet NSPS Subpart IIII. This corresponds to the PM limit for emergency engines in 40 CFR 60, Subpart IIII, the NSPS for Compression Ignition Internal Combustion Engines. Both engines will be subject to and will comply with all applicable NSPS Subpart IIII PM requirements for engines that maintain an emergency classification. For the diesel-fired Emergency Standby Generator (Emission Point AA-002), PM BACT is proposed as the Tier 2 PM performance level of 0.20 g PM/kWh for engines of this power rating. For the diesel-fired Emergency Firewater Pump (Emission Point AA-003), PM BACT is proposed as the Tier 3 PM performance level of 0.20 g PM/kWh for engines of this power rating.

(5) Greenhouse Gas (GHG) BACT Analysis

Step 1: Identify Available Control Technologies

The GHG control technologies considered in this case include:

- Carbon Capture and Sequestration (CCS) and
- Good combustion practices and the use of engines that are certified to meet NSPS Subpart IIII emission limits, and by complying with NSPS Subpart IIII work practice requirements.

There are no known CCS applications commercially available for emergency diesel-fired IC engines. Therefore, CCS is rejected as BACT.

Step 2: Eliminate Technically Infeasible Options

The use of CCS is neither available nor technically feasible. This leaves the only remaining option, which is employing good combustion practices and using engines that are certified to meet NSPS Subpart IIII emission requirements.

Step 3: Rank Remaining Options by Control Effectiveness

The only remaining option is the top technically feasible technology. This requires employing good combustion practices and the use of engines that are certified to meet NSPS Subpart IIII emission requirements.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top technically feasible control technology.

Step 5: Select BACT

Total GHG emissions for these two engines are calculated in Table A-25 of Appendix A of the PSD application. The proposed GHG BACT for both engines is the use of efficient NSPS Subpart IIII-compliant USEPA-certified Tier 2 and Tier 3 engines with GHG emissions performance levels specified in Tables C-1 and C-2 of 40 CFR Part 98, the mandatory GHG reporting rule as shown in Table A-25 of Appendix A of the PSD application.

C. Natural Gas Dewpoint Heater (Emission Point AA-004)

To prevent liquid water droplets from entering the CT and to enhance thermal efficiency, the natural gas fuel to the CT is indirectly heated in a small natural gas-fired dewpoint heater (Emission Point AA-004) that has a rated firing rate of 5.01 MMBtu/hr-HHV. The dewpoint heater will be permitted to operate continuously (8,760 hr/yr).

(1) Nitrogen Oxides (NO_x) BACT Analysis

Step 1: Identify Available Control Technologies

The NO_x control technologies that are available for this small gas-fired heater include:

- Selective Catalytic Reduction (SCR);
- Selective Non-Catalytic Reduction (SNCR); and
- Use of Ultra-Low NO_x Burners (ULNB).

Step 2: Eliminate Technically Infeasible Options

The use of add-on NO_x controls such as SCR or SNCR is not technically feasible for this small heater. SCR and SNCR are control technology typically used on heaters with ratings greater than

100 MWh with this heater having a rating of 1.06 MWh. The use of add-on NO_x controls for this application is therefore rejected as BACT.

Step 3: Rank Remaining Options by Control Effectiveness

The only available and technically feasible NO_x control technology for this heater is the use of ULNBs with a manufacturer's guaranteed NO_x performance level of 0.011 lb NO_x/MMBtu. This becomes the top technology.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the technically feasible top control technology.

Step 5: Select BACT

NO_x emissions from this small heater can be found in Table A-10 of Appendix A of the PSD application. NO_x BACT for this heater is proposed to be the use of ULNB technology with a manufacturer's guaranteed NO_x performance level of 0.011 lb NO_x/MMBtu.

(2) Carbon Monoxide (CO) BACT Analysis

Step 1: Identify Available Control Technologies

The CO control technologies that are available for this small gas-fired heater include:

- Oxidation catalysts and
- Employing good combustion techniques with a manufacturer's guaranteed CO performance level.

Step 2: Eliminate Technically Infeasible Options

The use of add-on CO controls such as an Oxidation Catalyst Unit is not technically feasible for this small heater. Oxidation catalysts are usually used on heaters with a rating greater than 100 MWh with this heater having a rating of 1.06 MWh. The use of add-on CO controls for this application is therefore rejected as BACT.

Step 3: Rank Remaining Options by Control Effectiveness

The only available and technically feasible CO control technology remaining for this heater is employing good combustion techniques with a manufacturer's guaranteed burner CO performance level of 0.037 lb CO/MMBtu. This becomes the top technology.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the technically feasible top control technology.

Step 5: Select BACT

CO emissions from this small heater can be found in Table A-10 of Appendix A of the PSD application. CO BACT for this heater is proposed to be the use of good combustion practices to achieve a manufacturer's guaranteed CO performance level of 0.037 lb CO/MMBtu.

(3) Volatile Organic Compounds (VOC) BACT Analysis

Step 1: Identify Available Control Technologies

The VOC control technologies that are available for this small gas-fired heater include:

- Oxidation catalysts and
- Employing good combustion techniques with a manufacturer's guaranteed VOC performance level.

Step 2: Eliminate Technically Infeasible Options

The use of add-on VOC controls such as an Oxidation Catalyst Unit is not technically feasible for this small heater. The use of add-on VOC controls for this application is therefore rejected as BACT.

Step 3: Rank Remaining Options by Control Effectiveness

The only available and technically feasible VOC control technology remaining for this heater is employing good combustion techniques with a manufacturer's guaranteed burner VOC performance level of 0.008 lb VOC/MMBtu. This becomes the top technology.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the technically feasible top control technology.

Step 5: Select BACT

VOC emissions from this small heater can be found in Table A-10 of Appendix A of the PSD application. The use of add-on VOC controls such as an oxidation catalyst system is not technically feasible for this small heater. VOC BACT for this heater is proposed to be the use of good combustion practices to achieve a manufacturer's guaranteed VOC performance level of 0.008 lb VOC/MMBtu.

(4) Particulate Matter (PM_{10} and $PM_{2.5}$) BACT Analysis

Step 1: Identify Available Control Technologies

The control technologies that can potentially be used to control $PM_{10}/PM_{2.5}$ (PM) emissions from this very small heater include:

- Fabric Filter (Baghouse);
- Electrostatic Precipitator (ESP); and
- Good combustion practices using clean low-sulfur pipeline natural gas as a fuel with a burner manufacturer's guarantee to have low PM emissions.

Step 2: Eliminate Technically Infeasible Options

Because the heater is small and the PM concentration in the heater flue gas is so dilute, it is technically infeasible to use PM add-on control equipment such as a fabric filter or ESP. There are no known commercial applications of add-on PM controls for natural gas-fired heaters, so this control option is also not "available."

Step 3: Rank Remaining Options by Control Effectiveness

The only remaining option is employing good combustion practices and by using clean natural gas as a fuel and with a burner manufacturer's guarantee to have low PM emissions. This becomes the top technology.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the technically feasible top control technology.

Step 5: Select BACT

$PM_{10}/PM_{2.5}$ emissions from this small natural gas-fired heater can be found in Table A-10 of Appendix A of the PSD application. $PM_{10}/PM_{2.5}$ BACT for this heater is proposed to be the use of low sulfur pipeline natural gas and good combustion practices to achieve a manufacturer's guaranteed PM performance level of 0.0048 lb PM/MMBtu.

(5) Greenhouse Gas (GHG) BACT Analysis

Step 1: Identify Available Control Technologies

The GHG control technologies that are considered in this case include:

- Carbon Capture and Sequestration (CCS) and

- Good combustion practices use a thermally efficient heater that is fired by relatively low-carbon emitting natural gas fuel.

There are no known CCS applications commercially available for small natural gas-fired heaters. Therefore, CCS is rejected as BACT for this application.

Step 2: Eliminate Technically Infeasible Options

The use of CCS is neither available nor technically feasible for this application. The only remaining option is employing good combustion practices with a thermally efficient heater that is fired by relatively low-carbon emitting natural gas fuel.

Step 3: Rank Remaining Options by Control Effectiveness

The only remaining option is the top technology for this application. This requires employing good combustion practices with a thermally efficient heater that is fired by relatively low-carbon emitting natural gas fuel.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the technically feasible top control technology.

Step 5: Select BACT

Total GHG emissions for this small heater can be found in Table A-23 of Appendix A of the PSD application. It is not technically feasible to use CCS technology in this application. The proposed GHG BACT for this small heater is the use of clean burning and efficient pipeline natural gas fuel and the employment of good combustion practices with GHG emissions performance levels specified in Tables C-1 and C-2 of 40 CFR 98, the mandatory GHG reporting rule (see Table A-23 of Appendix A of the PSD application).

D. Storage Tanks (Emission Points AA-010 through AA-013)

The TAPS proposes to have two horizontal fixed-roof diesel storage tanks. Each diesel tank provides ULSD fuel to the two emergency IC engines. The tank that will supply ULSD to the emergency generator will be a 99-bbl (4,150-gal) white, horizontal fixed-roof tank (Emission Point AA-010). The tank that will supply ULSD to the emergency firewater pump will be a 12-bbl (500-gal) white, horizontal fixed-roof tank (Emission Point AA-011).

(1) Volatile Organic Compounds (VOC) BACT Analysis

Step 1: Identify Available Control Technologies

The VOC control technologies that are considered in this case include:

- Use of pressurized storage tanks;
- Use of an internal floating-roof tank;
- Use of an external floating-roof tank;
- Use of a fixed-roof tank with the tank vent routed to an add-on VOC control device;
- Use of a fixed-roof tank with a submerged fill pipe and an atmospheric vent.

ULSD has a very low vapor pressure of 0.014 psia at storage conditions. As a result, the combined annual VOC emission from these two tanks will be small. Due to the size of the proposed fixed-roof tanks, the fixed-roof will control fugitive emissions at a similar rate to the other tanks listed above, while being much more mechanically simple. As such, fixed-roof tanks with submerged fill pipes and atmospheric vents are the industry standard for tanks of this size storing liquids with very low vapor pressures. The proposed BACT for these two tanks is the use of white horizontal fixed-roof storage vessels with a submerged fill pipe and an atmospheric vent.

Step 2: Eliminate Technically Infeasible Options

The best available control technology for ULSD storage is the use of a fixed-roof tank with a submerged fill pipe and an atmospheric vent.

Step 3: Rank Remaining Options by Control Effectiveness

The best available control technology for ULSD storage is the use of a fixed-roof tank with a submerged fill pipe and an atmospheric vent.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

Because ULSD has a very low vapor pressure of 0.014 psia at storage conditions, the combined annual VOC emissions from these two small tanks combined will be very low. Therefore, the proposed BACT for these two tanks is the use of white horizontal fixed-roof storage vessels with a submerged fill pipe and an atmospheric vent.

E. Lube Oil System Vents (Emission Points AA-008 and AA-009)

The new combustion turbine and new steam turbine will each be equipped with a dedicated lubrication system. Lubrication oil will be circulated through each turbine's machinery from the systems' oil

sumps. The oil sumps will be equipped with a vent that will be controlled by an oil mist eliminator. Emissions from the oil mist eliminators are based on lube oil replacement rates for similar units equipped with mist eliminators. Both VOCs and PM are expected to be emitted from the combustion turbine lube oil vent (Emission Point AA-008) and the steam turbine lube oil vent (Emission Point AA-009). The lube oil vents will be permitted to operate continuously (8,760 hr/yr).

(1) Volatile Organic Compounds (VOC) BACT Analysis

Step 1: Identify Available Control Technologies

The VOC control technologies that are considered in this case include:

- Atmospheric vent with a built-in mist eliminator and
- Atmospheric vent with no controls.

Step 2: Eliminate Technically Infeasible Options

Both options identified above are technically feasible.

Step 3: Rank Remaining Options by Control Effectiveness

The vent with a built-in mist eliminator represents the highest level of control. This becomes the top option.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

The combined VOC emissions from both lube oil vents can be found in Table A-15 in Appendix A of the PSD application. Use of a mist eliminator is the only feasible VOC control technology for these small VOC sources. Therefore, use of a mist eliminator is proposed as VOC BACT for the two lubrication oil vents (Emission Points AA-008 and AA-009).

(2) Particulate Matter (PM_{10} and $PM_{2.5}$) BACT Analysis

Step 1: Identify Available Control Technologies

The PM control technologies that are considered in this case include:

- Atmospheric vent with a built-in mist eliminator and
- Atmospheric vent with no controls.

Step 2: Eliminate Technically Infeasible Options

Both options identified above are technically feasible.

Step 3: Rank Remaining Options by Control Effectiveness

The vent with a built-in mist eliminator represents the highest level of control. This becomes the top option.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

No evaluations of cost or other impacts are required because Entergy is proposing to accept the top control technology.

Step 5: Select BACT

The combined PM emissions from both lubrication oil vents can be found in Table A-15 in Appendix A of the PSD application. Use of a mist eliminator is the only feasible PM control technology for these small PM sources. Therefore, use of a mist eliminator is proposed as $PM_{10}/PM_{2.5}$ BACT for the two lubrication oil vents (Emission Points AA-008 and AA-009).

F. Fugitive Emissions (Emission Points AA-005 through AA-007)

The proposed equipment at TAPS has the potential to leak VOC and GHG from equipment components. These components include valves, flanges, connectors, pumps, etc. For the natural gas fugitives (Emission Point AA-005), the VOC composition of the natural gas is only 1.58 wt%. The total annual fugitive VOC emissions from this source can be found in Table A-12 in Appendix A of the PSD application. Methane in natural gas is a GHG. Fugitive GHG emissions for Emission Point AA-005 represent 0.01% of the facility-wide GHG annual emission rate. The GHG emissions for Emission Point AA-005 can be found in Table A-24 of Appendix A of the PSD application. The facility-wide GHG annual emission rate can be found in Table A-21 of Appendix A of the PSD application. For the diesel fugitives (Emission Point AA-007), annual fugitive VOC emissions are low due to the limited number of components in diesel service and that diesel is a low-emitting heavy liquid. The emissions from this source can be found in Table A-14 in Appendix A of the PSD application. There currently are no NSPS or NESHAP regulations which require a Leak Detection and Repair (LDAR) program for the fugitive sources (Emission Points AA-005 and AA-007). If an LDAR program were implemented at the TAPS, it would monitor both VOC and GHG (methane) emissions.

(1) Volatile Organic Compounds (VOC) BACT Analysis

Step 1: Identify Available Control Technologies

The available VOC control technologies for fugitive VOC emissions include:

- Implementing a traditional Leak Detection and Repair (LDAR) program using a portable hydrocarbon monitor and

- Implementing an Audio-Visual-Olfactory (AVO) LDAR program.

Step 2: Eliminate Technically Infeasible Options

Both LDAR program options identified above are technically feasible.

Step 3: Rank Remaining Options by Control Effectiveness

A traditional LDAR program using a portable hydrocarbon detector is expected to have better control than an AVO LDAR program.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

Implementing a traditional LDAR program using a portable hydrocarbon detector is technically feasible, but for the minor amount of VOC control offered by an LDAR program, the VOC emission reduction achieved would be cost prohibitive. As shown in the BACT cost estimates in Appendix D of the PSD application, the cost for implementing a sitewide VOC LDAR program with a portable hydrocarbon detector would result in a control cost of over $30,000/ton VOC emissions reduced. For this reason, implementing a traditional LDAR program is rejected as VOC BACT. The use of an AVO LDAR program becomes the top available option.

Step 5: Select BACT

Most fugitive VOC is emitted from natural gas components (Emission Point AA-005). Because pipeline natural gas is odorized with a small quantity of mercaptan, an Audio-Visual-Olfactory (AVO) program to detect and repair leaks is technically feasible, highly effective, and is the top remaining control option. For this reason, an AVO program is proposed for VOC BACT.

(2) Greenhouse Gas (GHG) BACT Analysis

Step 1: Identify Available Control Technologies

The primary GHG fugitive pollutant will be methane from equipment in natural gas service. The available methane control technologies for fugitive methane emissions include:

- Implementing a traditional Leak Detection and Repair (LDAR) program using a portable hydrocarbon monitor and

- Implementing an Audio-Visual-Olfactory (AVO) LDAR program.

Step 2: Eliminate Technically Infeasible Options

Both LDAR program options identified above are technically feasible.

Step 3: Rank Remaining Options by Control Effectiveness

A traditional LDAR program using a portable hydrocarbon detector is expected to have better control than an AVO LDAR program.

Step 4: Evaluate Most Effective Controls for Cost, Energy, and Other Impacts

A traditional LDAR program that uses a portable hydrocarbon detector is technically feasible, but for the minor amount of GHG control offered by this LDAR program, the GHG emission reduction achieved would be cost prohibitive. As shown in the BACT cost estimates in Appendix D of the PSD application, the cost for implementing a sitewide GHG LDAR program would result in a control cost of over $578/ton CO_2e emissions reduced. For this reason, implementing a traditional LDAR program is rejected as GHG BACT. The use of an AVO LDAR program becomes the top available option.

Step 5: Select BACT

Most fugitive methane is emitted from natural gas components (Emission Point AA-005). Because pipeline natural gas is odorized with a small quantity of mercaptan, an Audio-Visual-Olfactory (AVO) program to detect and repair leaks is technically feasible, highly effective and is the top remaining control option. For this reason, an AVO program is proposed for GHG BACT.

V. Source Impact Analysis

The owner or operator of a proposed source or modification is required to demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), will not cause or contribute to air pollution in violation of: 1) any national ambient air quality standard in any air quality control region; or 2) any applicable maximum allowable increase over the baseline concentration in any area.

The modeled concentrations used to determine compliance with any NAAQS and PSD increment depend on 1) the type of standard, i.e., deterministic or statistical, 2) the available length of record of meteorological data, and 3) the averaging time of the standard being analyzed. When the analysis is based on 5 years of National Weather Service meteorological data, the following estimates are used:

- For deterministically based standards (e.g., SO_2), the highest, second-highest short term estimate and the highest annual estimate; and
- For statistically based standards (e.g., PM_{10}), the highest, sixth-highest estimate and highest 5-year average estimate.

A. *Existing Air Quality*

Any application for a permit under the Prevention of Significant Deterioration program is required to contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants: a) for the source, each pollutant that it would have the potential to emit in a significant amount; b) for the modification, each pollutant for which it would result in a significant net emissions increase.

The existing ambient air quality is defined by the natural and human-generated sources of air pollution. The area surrounding the Madison County facility is considered rural and in attainment for all regulated pollutants. The pollutants that result in a significant net emission increase as a result of the proposed project and under consideration in this analysis are NO_x, CO, PM, PM_{10}, $PM_{2.5}$, volatile organic compounds (VOCs), and H_2SO_4. VOCs and nitrogen oxides (NO_x) combine in the atmosphere to form ozone and, therefore, are called precursor emissions. Any significant emissions increase from an emission unit or net emissions increase at a major stationary source that is significant for VOC or NO_x, which are precursor pollutants for ozone, shall be considered significant for ozone (O_3). Under current guidance if one precursor for a pollutant exceeds the threshold, then all precursors for that pollutant must be taken into consideration and used in calculations.

TABLE 2-1 PSD SIGNIFICANCE SUMMARY

AIR CONTAMINANT	TRIGGERS PSD REVIEW
Nitrogen oxides (NO_X, as NO_2 and as an ozone precursor))	YES
Carbon monoxide (CO)	YES
Sulfur dioxide (SO_2)	NO
Particulate matter (PM)	YES
PM with a diameter of less than 10 microns (PM_{10})	YES
PM with a diameter of less than 2.5 microns ($PM_{2.5}$)	YES
Volatile organic compounds (VOC) (as an ozone precursor)	YES
Sulfuric Acid Mist (H_2SO_4)	YES
Ozone (O_3)	YES

The MDEQ operates an ambient air quality network throughout the state of Mississippi and report their findings in the *"Mississippi Department of Environmental Quality Air Quality Data Summary."* This report looks at the reported levels of the criteria pollutants at various monitoring sites located across the State and compares these levels to the NAAQS to determine the State's compliance with there standards. There is one primary and secondary ozone standard, the 8-hour average. The level of the 8-hour Ozone standard is 70 ppb. The MDEQ monitors ozone continuously from March 1 through October 31 each year at the

monitoring sites with the exception of the MDEQ NCORE site located in Jackson, MS which monitors ozone year-round.

Primary and Secondary 8-Hour Standard- 70 ppb

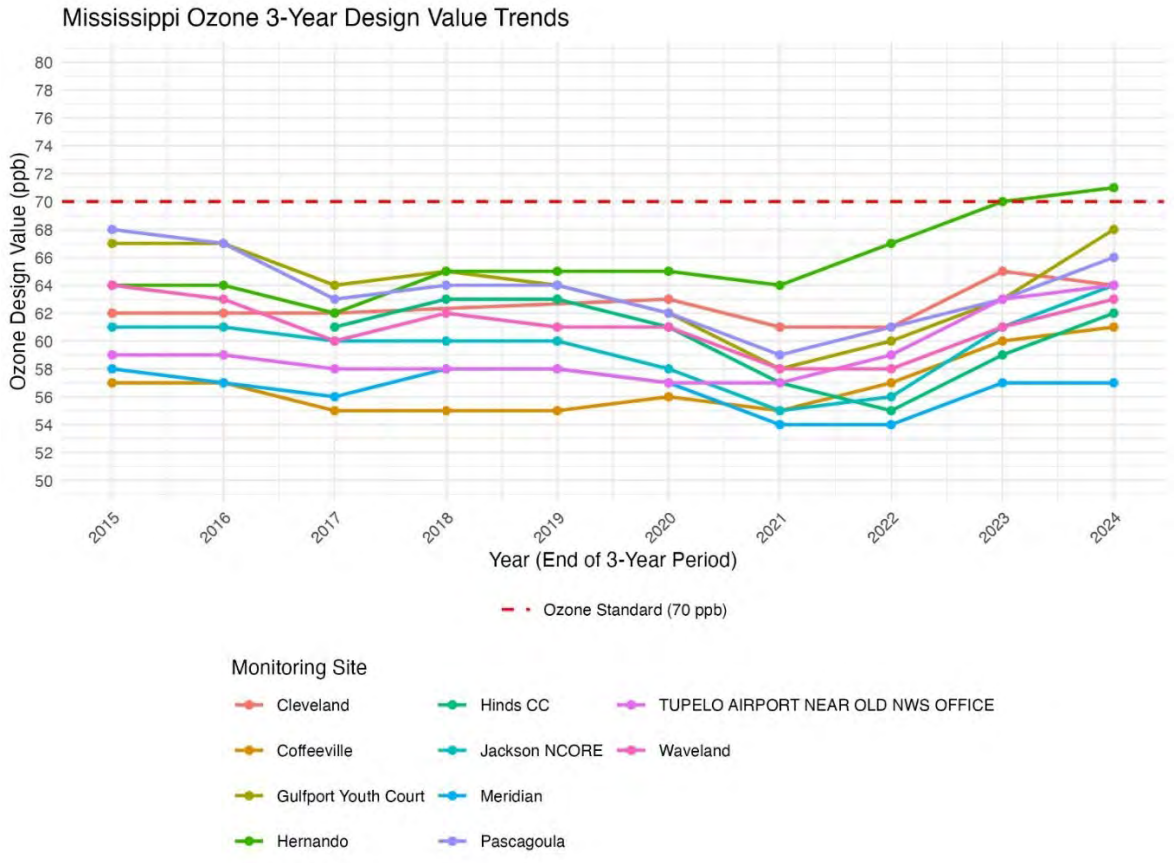
The 8-hour standard is met when the 3-year average of the annual fourth highest daily maximum 8-hour average concentration (also known as the design value) is less than or equal to 0.070 parts per million (ppm) or 70 parts per billion (ppb).

Mississippi Ozone Monitoring Network (2024)



Site	County	Design Value (ppb)
Cleveland Delta State	Bolivar	64
Hernando	DeSoto	71
Waveland	Hancock	63
Gulfport Youth Court	Harrison	68
Hinds CC	Hinds	62
Jackson NCORE	Hinds	64
Pascagoula	Jackson	66
Meridian	Lauderdale	57
TUPELO AIRPORT NEAR OLD NWS OFFICE	Lee	64
Coffeeville	Yalobusha	61

10 Year Ozone Monitoring Trends at All Mississippi Sites



B. Modeling Procedure

All estimates of ambient concentrations are to be based upon applicable air quality models, databases and other requirements specified in EPA's Guideline on Air Quality Models in Appendix W of 40 CFR Part 51.

The EPA Memorandums, "Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier I Demonstration Tool for Ozone and $PM_{2.5}$ under the PSD Permitting Program," dated April 30, 2019, and "Guidance for Ozone and Fine Particulate Matter Permit Modeling" dated July 29, 2022 reflect EPA's recommendation for how agencies conduct air quality modeling and related technical analyses to satisfy compliance demonstration requirements for ozone and $PM_{2.5}$ under the PSD Permitting Program. In accordance with the above-mentioned Guidance and the Revisions to the Guideline on Air Quality Models (40 CFR Part 51, Appendix), EPA recommends that an applicant use a "two-tiered" demonstration approach to address single-source impacts on ozone and secondary $PM_{2.5}$. The first tier involves the use of existing technical information to evaluate the relationships between precursor emissions and a source's impacts. The second tier involves the application of more sophisticated case-specific chemical transport models (CTMs) (e.g., photochemical grid models).

Using the Tier I Demonstration approach for PSD compliance, the emissions of the individual precursor pollutants are not added together to determine if there is an exceedance but are evaluated individually. If an exceedance occurs for one individual precursor, the precursor pollutants are compared to the hypothetical source's modeled emission rate and impacts (MERPs). The EPA provides access to its MERPs values on its MERPs VIEW Qlik website (https://www.epa.gov/scram/merps-view-qlik). If there is an exceedance of an individual precursor, then upon calculating the potential impacts, all precursors of either ozone or $PM_{2.5}$ are taken into consideration when calculated.

Should the Tier I Demonstration find the critical air quality threshold, or significant impact level (SIL), would not be exceeded when considering the impact of the ozone precursor emissions of VOC and NOx, the proposed project will not cause ozone concentrations exceeding the ozone SIL. No further analysis or modeling will be required.

Ozone

The Tier I Demonstration for the Entergy Mississippi, LLC – Madison County Advanced Power Station proposed project, which involves constructing a new natural gas-fired combined cycle power plant has an anticipated increase of 1.656 ppb of ozone.

The USEPA's Smith County hypothetical source (CUS 9) is located within the same airshed as the TAPS. The majority of project-related NO_X, SO_2, and VOC emissions exhaust through the 61-meter-tall stack. This height is more similar to the "High" (90 meter) hypothetical source than the "Low" (10-meter) hypothetical source. The "High" Smith County hypothetical source MERP values were used for this analysis. The proposed project includes an (annualized daily) increase of 308 tpy NO_X emissions and 54 tpy SO_2 emissions. These emissions are closer to the modeled emissions for the USEPA's 500 tpy hypothetical source than the USEPA's 1,000 tpy or 3,000 tpy hypothetical source emission rates. The 500 tpy NO_X and SO_2 hypothetical source MERP values will be used for this analysis. The proposed project includes an (annualized daily) increase 881 tpy VOC emissions. These emissions are closer to the modeled emissions for the USEPA's 1,000 tpy hypothetical source than the USEPA's 500 tpy or 3,000 tpy hypothetical source emission rates. The 1,000 tpy VOC hypothetical source MERP values will be used for this analysis.

Model Versions

The model versions being used are the following:

- AERMET version 24142
- Building Profile Input Program subroutine (version 04274)
- Providence/Oris LLC's "BEE-Line BEEST for Windows" (Version 12.13a)

The following model options will be used in the application of the AERMOD modeling:

A. Regulatory default option will be enabled for all pollutants.

B. Elevated terrain will be used for modeling the area around TAPS.

C. TAPS sources will be modeled at their actual release heights. None of the TAPS stacks exceed the calculated GEP height or 65 meters, whichever is greater.

D. The NAD83 datum will be used for source, structure, and receptor location coordinates.

E. Modeling receptors will be placed at a distance that clearly identifies the area of impact

Receptor Grid Spacing

The receptor grids used in the preliminary and full impacts analyses are described in this Section. The NAD83 datum was used for the receptor UTM coordinates. Providence/ORIS, LLC's "BEE-Line BEEST for Windows" was used to calculate the appropriate domain boundaries. The USEPA AERMAP program will be used to calculate (interpolate) the terrain elevations and local terrain maximums using 1-arc-second (~30 meters) United States Geological Survey's National Elevation Dataset.

The receptor coverage utilized for the preliminary impact analyses will consist of the following:

- 1,000-meter spaced receptors to a distance of 30 km from the MAPS sources to ensure that (1) the maximum predicted concentration is located, (2) all locations with predicted concentrations greater than the SILs were identified, and (3) that concentration gradients associated with the project related emissions clearly decrease in magnitude outside of the AOIs
- 500-meter spaced receptors to a distance of 5 km from the TAPS sources
- 100-meter spaced receptors to a distance of 1 km from the TAPS sources
- 25-meter spaced receptors to a distance of 300 meters from any TAPS fence line
- 25-meter spaced receptors along the TAPS fence line

The entire TAPS facility will be fenced. These receptor grids will be designed to capture the maximum off-property ground-level concentrations for all pollutants, operating scenarios, and review types. EML will ensure that the receptor spacing surrounding the location of the modeled maximum concentration will be 100 meters or less.

Only receptors with predicted concentrations greater than or equal to the respective SILs were included in the full impact NAAQS and PSD increment consumption analyses. Full impact modeling receptor grids were developed using the preliminary modeling output.

Tier 1 estimates of the secondary $PM_{2.5}$ impacts calculated using the project-related NO_X and SO_2 precursor emissions were added to the direct $PM_{2.5}$ modeling results for each individual modeling receptor for the significant receptor determination analyses. This is conservative since secondary $PM_{2.5}$ formed through chemical reactions will occur in the atmosphere gradually over time (hours or days depending on atmospheric conditions and other variables) and the estimated secondary $PM_{2.5}$ impact is unlikely to occur near the receptors with direct $PM_{2.5}$ impacts that are greater than the SILs.

Meteorological Data

Current MDEQ guidance was followed concerning meteorological data for AERMOD modeling for sources located in Madison County. The MDEQ has created county-specific preprocessed meteorological data sets using AERMET for use in AERMOD air dispersion modeling. Preprocessed meteorological data was obtained from the MDEQ. Madison County is located within the Central region of the state. Within the Central region, pre-processed meteorological data consisted of surface data from the Hawkins Field Airport meteorological

surface station (KHKS), surface data from the Jackson International Airport meteorological station (KJAN) and upper air data from the Jackson International station is available.

The MDEQ processed the data using AERMET version 24142 and incorporates the AERMINUTE data along with the low wind speed threshold of 0.5 m/s. The most recent five years of representative National Weather Service meteorological data available from the MDEQ on the date of the AQA (2020, 2021, 2022, 2023, and 2024) will be utilized in the NAAQS and PSD increment analyses. The base elevation for Hawkings Field Airport station is 101.6 meters.

Guidance from the USEPA's Guideline on Air Quality Models, Appendix W 40 CFR 51, EPAHQ-OAR-2015-0310, January 17, 2017, and the AERMOD Implementation Guide, 454-B-23-009, October 12, 2023, was followed to assess the representativeness of the data from this meteorological station location. These documents state that the determination of representativeness should include a comparison of the surface characteristics (albedo, Bowen ratio and surface roughness length) between the measurement site and the source location. The surface characteristics at both locations were determined using the USEPA's AERSURFACE tool using land cover data from the National Land Cover Database.

TABLE 6-1 SURFACE CHARACTERISTICS

POLLUTANT	ALBEDO	BOWEN RATIO	SURFACE ROUGHNESS LENGTH (M)
MCAPS	0.16	0.62	0.135
HAWKINGS FIELD AIRPORT	0.17	0.78	0.033
JACKSON INTERNATIONAL AIRPORT	0.16	0.51	0.037

The albedo and Bowen ratios of each meteorological location are similar to that of the TAPS location. The surface characteristics of each meteorological station are similar to each other. Surface roughness lengths vary between 0.001 to 1.5 meters. The surface roughness at the TAPS location and these meteorological stations are at the lower end of this range. Additionally, surface roughness at most airports are lower than non-airport locations due to the runway surfaces. The land use immediately surrounding each location is rural in nature. The terrain surrounding each location and the terrain between each location is flat.

The surface characteristics at the Hawkins Field Airport and Jackson International Airport are nearly identical to each other. The nearest meteorological stations – Hawkins Field Airport – was selected to provide the most representative meteorological data for the TAPS location.

Point Source Stack Parameters

MODELING STACK PARAMETERS - POINT SOURCES
MADISON COUNTY ADVANCED POWER STATION
RIDGELAND, MISSISSIPPI

Modeling ID	Description	Location (m), NAD83		Elevation	Height	Temp	Velocity	Diameter
		Easting	Northing	(m)	(m)	(K)	(m/s)	(m)
1A_F	Combined Cycle Unit 1A - Full Load	761326.0	3588826.9	110.40	60.96	344.26	24.76	7.010
1A_M	Combined Cycle Unit 1A - Medium Load	761326.0	3588826.9	110.40	60.96	351.97	21.44	7.010
1A_L	Combined Cycle Unit 1A - Low Load	761326.0	3588826.9	110.40	60.96	351.52	20.60	7.010
1A_MSS	Combined Cycle Unit 1A - MSS Startup Actuals	761326.0	3588826.9	110.40	60.96	351.52	20.60	7.010
1A_MSSH	Combined Cycle Unit 1A - MSS Hot Startup	761326.0	3588826.9	110.40	60.96	351.52	20.60	7.010
1A_MSSW	Combined Cycle Unit 1A - MSS Warm Startup	761326.0	3588826.9	110.40	60.96	351.52	20.60	7.010
1A_MSSC	Combined Cycle Unit 1A - MSS Cold Startup	761326.0	3588826.9	110.40	60.96	351.52	20.60	7.010
NGDPHTR	Natural Gas Dewpoint Heater	761352.5	3588809.8	110.40	6.096	394.26	4.133	0.5080
EMGEN	Emergency Standby Generator	761490.4	3588782.0	110.40	4.826	799.26	91.28	0.3556
FWP	Emergency Diesel Fire Water Pump	761275.2	3588674.7	110.40	3.658	789.26	36.22	0.1524
LOV_TURB	Combustion Turbine Lube Oil Vent	761406.6	3588839.8	110.40	9.144	0	0.001	0.001
LOV_STM	Steam Turbine Lube Oil Vent	761396.9	3588770.9	110.40	9.144	0	0.001	0.001

PHYSICAL EXHAUST PARAMETERS - POINT SOURCES
MADISON COUNTY ADVANCED POWER STATION
RIDGELAND, MISSISSIPPI

MCAPS EPN	Modeling ID	Description	Location (m), NAD83		Base Elevation	Height	Diameter	Velocity	Temp
			Easting	Northing	(ft)	(ft)	(ft)	(ft/sec)	(°F)
1A	1A_F	Combined Cycle Unit 1A - Full Load	761326.0	3588826.9	362.20	200	23	81.25	160
1A	1A_M	Combined Cycle Unit 1A - Medium Load	761326.0	3588826.9	362.20	200	23	70.34	174
1A	1A_L	Combined Cycle Unit 1A - Low Load	761326.0	3588826.9	362.20	200	23	67.60	173
1A	1A_MSS	Combined Cycle Unit 1A - MSS Startup Actuals	761326.0	3588826.9	362.20	200	23	67.60	173
1A	1A_MSSH	Combined Cycle Unit 1A - MSS Hot Startup	761326.0	3588826.9	362.20	200	23	67.60	173
1A	1A_MSSW	Combined Cycle Unit 1A - MSS Warm Startup	761326.0	3588826.9	362.20	200	23	67.60	173
1A	1A_MSSC	Combined Cycle Unit 1A - MSS Cold Startup	761326.0	3588826.9	362.20	200	23	67.60	173
NGDPHTR	NGDPHTR	Natural Gas Dewpoint Heater	761352.5	3588809.8	362.20	20.00	1.67	13.56	250
EMGEN	EMGEN	Emergency Standby Generator	761490.4	3588782.0	362.20	15.83	1.17	299.5	979
FWP	FWP	Emergency Diesel Fire Water Pump	761275.2	3588674.7	362.20	12.00	0.50	118.8	961
LOVCT	LOV_TURB	Combustion Turbine Lube Oil Vent	761406.6	3588839.8	362.20	30.0			
LOVST	LOV_STM	Steam Turbine Lube Oil Vent	761396.9	3588770.9	362.20	30.0			

C. Air Quality Monitoring Requirements

The ambient air quality analysis is required to contain continuous air quality monitoring data. This data is gathered for purposes of determining whether emissions of any pollutant would cause or contribute to a violation of the standard or any maximum allowable increase. The facility must establish existing air quality in the area and air monitoring is required for each criteria pollutant that is proposed to be emitted at or above the de minimis. This requirement can be satisfied by either: 1) establishing a site-specific ambient monitoring network, or 2) using existing ambient monitoring data. If either the predicted modeled impact from an emission increase or the existing ambient concentration is less than the monitoring de minimis concentration, MDEQ has the discretionary authority to exempt an applicant from preconstruction ambient monitoring.

No de minimis air quality level is provided for ozone. However, any net emissions increase of 100-tpy or more of VOC or NOx (the precursors for ozone formation) require the proposed PSD project to perform an ambient impact analysis, including the gathering of ambient air quality data. The proposed project has proposed emissions increases of 881 tpy VOC and 308 tpy NOx. Since the proposed project NOx and VOC emissions exceed 100 tpy, TAPS must

establish existing air quality in the facility project area. To meet this requirement, TAPS proposed to use an existing air quality monitor as opposed to establishing their own site-specific ambient monitoring network.

Preconstruction de Minimis Chart

TABLE 12-4 PSD PRE-CONSTRUCTION MONITORING REQUIREMENT ANALYSIS RESULTS

POLLUTANT	AVERAGING PERIOD	MAXIMUM PREDICTED CONCENTRATIONS AT EACH RECEPTOR (ug/m³)		SIGNIFICANT MONITORING CONCENTRATION (µg/m³)
NO_2	Annual	1st High (of 5 Years)	0.2396	14
CO	8-Hour	1st High (of 5 Years)	108.8	575
PM_{10}	24-Hour	1st High (of 5 Years)	1.368	10

Ambient Air

Estimates for the current ambient air background concentrations at the proposed project site may be required for two distinct and separate purposes: (1) to demonstrate that the ambient air concentrations of PSD-significant pollutants are currently in compliance with the NAAQS and (2) for use in a full impact NAAQS modeling analysis. Based on Preliminary Impact Determination results, background ambient air concentration data may be required for $PM_{2.5}$ and O_3. EML proposes to use ambient air quality data from existing air quality monitoring stations to establish representative background concentrations for these contaminants.

Monitor Selection and Justification

Based on a review of the USEPA's AirData website, EML proposes using data collected at the following monitoring stations to establish representative background concentrations and for use in the NAAQS compliance demonstrations:

- $PM_{2.5}$ – Hinds CC (EPA ID 28-049-0021)
- O_3 – Hinds CC (EPA ID 28-049-0021)

USEPA Guidance will be followed in selecting the form of the monitored concentration for each pollutant and averaging period.

TABLE 11-1 PROPOSED BACKGROUND CONCENTRATION

CONTAMINANT	MONITORING STATION	COUNTY	AVERAGING PERIOD	CONCENTRATION (µg/m³)	FORM
$PM_{2.5}$	Hinds CC	Hinds, MS	24-Hour	23.00	3-Year Average of 98th Percentiles of the Daily Maximums 2022-2024
			Annual	9.000	3-Year Average of 1st Highs 2022-2024
O_3	Hinds CC	Hinds, MS	8-Hour	62 PPB	3-Year Average of the 4th Highest Daily 8-Hour Maximums 2022-2024

The $PM_{2.5}$ and O_3 concentrations were obtained from the MDEQ's Air Quality Data Summary for Calendar Year 2024 (https://www.mdeq.ms.gov/air/ambient-air-quality/).

Following guidance contained in USEPA's Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), EPA-450/4-87-007, May 1987; and USEPA's Guidance on Developing Background Concentrations for Use in Modeling Demonstrations, November 20, 2024. EML concludes that the air quality monitoring data used to establish background concentrations is representative of the area around the TAPS facility.

The TAPS facility is located outside the "same general area" of the proposed monitoring stations. There are no $PM_{2.5}$ or O_3 ambient air monitoring stations located within Madison County. Therefore, topography, population and air emission information compiled for Madison County were compared to the proposed monitor locations.

Topography

The TAPS facility location and the proposed monitor location share similar topography. The area within several kilometers of each location is relatively flat, and largely undeveloped with rural characteristics.

Population Density

Population estimates were obtained from the U.S. Census Bureau for year 2024. Using these estimates, the population of Madison County was compared to the populations of the Counties where the proposed monitor stations are located.

TABLE 11-2 POPULATION COMPARISON ANALYSIS

COUNTY	POPULATION ESTIMATE FOR YEAR 2024
MADISON, MS	114,247
HINDS, MS	211,975

Hinds County has a greater population than Madison County. Hence, air emissions associated with population density (e.g., automobile traffic) and corresponding ambient air concentrations monitored by the station will be greater than the emissions associated with population density expected to exist near the TAPS facility. EML believes the Hinds CC monitoring station would offer representative $PM_{2.5}$ concentration estimates for the TAPS location.

Ozone is formed through photochemical reactions involving the emission of precursor compounds such as NO_X and VOC. These chemical transformations occur in the atmosphere gradually over time. Due to the required formation distances, comparison of nearby (i.e. countywide) ozone precursor emissions (i.e., NO_X and VOC) is not appropriate. However, it is noted that the county-wide population of Hinds County supports the proposed Hinds CC O_3 monitor selection for representative concentration estimates for the TAPS location.

County-Wide Emissions

Air emission rate data for Madison and the proposed monitor Counties were obtained from USEPA's National Emissions Inventory (NEI) Database through the USEPA AirData website. These USEPA AirData correspond to the point source and non-point/mobile source criteria pollutant emissions for the 2020 NEI analysis (Version March 30, 2023). The USEPA is currently developing the 2023 NEI analysis and 2023 data is not yet available.

TABLE 11-3 COMPARISON OF COUNTY-WIDE AIR EMISSIONS

COUNTY	COUNTY-WIDE AIR EMISSION ESTIMATES (TPY)		
	$PM_{2.5}$	NO_2	VOC
Madison, MS	1,679	2,053	25,213
Hinds, MS	1,953	4,055	34,373

The county-wide air $PM_{2.5}$ emissions for Hinds County are greater than those in Madison County. EML believes the proposed Hinds CC monitor offers representative $PM_{2.5}$ concentrations for the TAPS location.

Ozone is formed through photochemical reactions involving the emission of precursor compounds such as NO_X and VOC. These chemical transformations occur in the atmosphere gradually over time. Due to the required formation distances, comparison of nearby (i.e., countywide) ozone precursor emissions (i.e., NO_X and VOC) is not appropriate. However, it is noted that the county-wide NO_2 and VOC emissions in Hinds County support the proposed Hinds CC O_3 monitor selection for representative concentration estimates for the TAPS location.

Nearby Source Emissions

The emissions from electrical power generating facilities located near the proposed $PM_{2.5}$ and NO_2 monitors were compared with those near the project site. The USEPA's Power Plants and Neighboring Communities Map website was used to identify power plants within 100 km of each monitoring station and their emissions.

This USEPA database does not provide the $PM_{2.5}$ emissions associated with these power plants. However, the provided NO_X and SO_2 pollutants are precursors to secondary $PM_{2.5}$ emissions. This comparison shows that the emissions near the Hinds CC monitor are identical to those near the proposed TAPS location. EML believes the Hinds CC monitor provides conservative and representative estimates for the background $PM_{2.5}$ concentrations at the project site.

Available Ozone Monitoring Data

The chemical transformations that occur to precursor compounds within the atmosphere occur gradually over time. It would not be appropriate to base the selection of a representative O_3 monitor on emissions of nearby or county-wide sources. There are four O_3 monitors located within the TAPS airshed.

The topography at the locations of each of these monitor stations are similar to that at the TAPS location. These nearby monitors provide similar concentration results that are all well below the 70 parts per billion NAAQS. EML proposes the use of the monitor closest to the TAPS location – Hinds CC. It should be noted the use of one of the more conservative of these monitors would also provide comparable (i.e., acceptable) modeling results for this AQA.

TABLE 11-5 COMPARISON OF NEARBY OZONE MONITORS

MONITOR	COUNTY	DISTANCE TO MCAPS (KM)	8-HOUR O3 DESIGN VALUE (PPB)
Hinds CC	Jackson, MS	6	62
NCORE	Jackson, MS	9	64
Monroe Airport	Ouachita, LA	172	62
Cleveland Delta State	Bolivar, MS	157	64

D. PSD Preliminary Analysis Modeling Impacts

In the preliminary analysis, only the significant increase in potential emissions of a pollutant from a proposed new source, or the significant net emission increase of a pollutant from a proposed modification is modeled. A full impact analysis for a particular pollutant is not required when emissions of that pollutant from a proposed source or modification would not increase ambient concentrations by more than prescribed significant ambient impact levels.

In accordance with the Revisions to the Guideline on Air Quality Models (40 CFR Part 51, Appendix W) EPA recommends that an applicant use a "two-tiered" demonstration approach to address single-source impacts on ozone and secondary $PM_{2.5}$. The first tier involves the use of existing technical information to evaluate the relationships between precursor emissions and sources' impacts. The second tier involves the application of more sophisticated case-specific chemical transport models (CTMs) (e.g., photochemical grid models). The April 30, 2019, Memorandum, "Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ under the PSD Permitting Program", reflected EPA's recommendations on how to conduct an air quality modeling and related technical analyses to satisfy compliance demonstration requirements for Ozone and Secondary $PM_{2.5}$ for permit related assessment under the PSD Program.

For ozone, the modeled air quality impact of an increase in precursor emissions from the hypothetical source is expressed in units of ppb or ppm. Consistent with the modeled emissions rates that are input to the air quality model to predict a change in pollutant concentration, MERPs are expressed as an annual emissions rate in tons per year (tpy).

A Tier 1 approach was used to estimate the secondary $PM_{2.5}$ and O_3 impacts associated with the precursor emissions. The secondary $PM_{2.5}$ and ozone impacts were estimated using guidance from the USEPA's Clarification on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ under the PSD Permitting Program, April 30, 2024. MERPs derived using the USEPA's photochemical modeling results for hypothetical sources located in Mississippi were used to estimate the air quality of secondary $PM_{2.5}$ and ozone impacts associated with project-related emissions of NO_X, SO_2, and VOCs. These secondary $PM_{2.5}$ and ozone impacts were included in the preliminary impact determination, full impact NAAQS, and full impact PSD increment consumption analyses.

The USEPA hypothetical source photochemical modeling and the MERP analysis are both based on annual project emission rates. The proposed project's annual emissions were used for the annual $PM_{2.5}$ analysis. The maximum daily project emissions were converted to tons per year (tpy) values for use in the short-term $PM_{2.5}$ and O_3 analyses. The turbine emission contributions were based on one hot startup each day and the remainder of the day at the turbine load scenario with the maximum hourly emission rates (base load operation with maximum duct burner firing at a 10°F ambient temperature day). This is extremely conservative since most days will not have a hot startup and the load scenario chosen for this analysis has higher emissions than those associated with alternative load scenarios.

The USEPA's Smith County hypothetical source (CUS 9) is located within the same airshed as the TAPS. The majority of project-related NO_X, SO_2, and VOC emissions exhaust through the 61-meter-tall stack. This height is more similar to the "High" (90 meter) hypothetical source than the "Low" (10-meter) hypothetical source. The "High" Smith County hypothetical source MERP values were used for this analysis. The proposed project includes an (annualized daily) increase of 308 tpy NO_X emissions and 54 tpy SO_2 emissions. These emissions are closer to the modeled emissions for the USEPA's 500 tpy hypothetical source than the USEPA's 1,000 tpy or 3,000 tpy hypothetical source emission rates. The 500 tpy NO_X and SO_2 hypothetical source MERP values were used for this analysis. The proposed project includes an (annualized daily) increase 881 tpy VOC emissions. These emissions are closer to the modeled emissions for the USEPA's 1,000 tpy hypothetical source than the USEPA's 500 tpy or 3,000 tpy hypothetical source emission rates. The 1,000 tpy VOC hypothetical source MERP values were used for this analysis.

The conservative O_3 and secondary $PM_{2.5}$ impacts estimated using the MERP analysis were included in the preliminary impact determination and full-impact modeling analyses.

TABLE 12-3 AOI ANALYSIS RESULTS

POLLUTANT	AVERAGING PERIOD	MAXIMUM PREDICTED CONCENTRATIONS AT EACH RECEPTOR (ug/m³)		SIGNIFICANT IMPACT LEVEL (SIL) (µg/m³)	DE MINIMIS?
NO_2	1-Hour	5-Year Average of 1st High	6.341	7.5	Yes
	Annual	1st High (of 5 Years)	0.2396	1	Yes
CO	1-Hour	1st High (of 5 Years)	771.9	2,000	Yes
	8-Hour	1st High (of 5 Years)	108.8	500	Yes
PM_{10}	24-Hour	1st High (of 5 Years)	1.368	5	Yes
PM_{10} (Increment)	Annual	1st High (of 5 Years)	0.09985	1	Yes
$PM_{2.5}$ (NAAQS)	24-Hour	5-Year Average of 1st High	1.025 (1)	1.2 (3)	Yes
	Annual	5-Year Average of 1st High	0.09445 (1)	0.13 (3)	Yes
$PM_{2.5}$ (Increment)	24-Hour	1st High (of 5 Years)	1.417 (1)	1.2 (4)	No (5)
	Annual	1st High (of 5 Years)	0.1012 (1)	0.13 (4)	Yes
O_3	8-Hour	Conservative Estimate	1.656 PPB (2)	1 PPB	No (5)

(1) Includes estimated secondary $PM_{2.5}$ impact from Section 12.1.1 MERP analysis
(2) Estimated O_3 impact from Section 12.1.1 MERP analysis
(3) NAAQS SIL
(4) PSD Increment Consumption SIL – Class II
(5) Full impact analysis required for this standard/limit, pollutant and averaging period.

The predicted annual NO_2, 1-hour CO, 8-hour CO, 24-hour PM_{10}, annual PM_{10} and annual $PM_{2.5}$ concentrations are less than their respective SILs. Additionally, the 24-hour $PM_{2.5}$ NAAQS concentration is less than the SIL. No additional modeling is required for these pollutants and averaging periods.

The predicted 24-hour $PM_{2.5}$ PSD increment and 8- Hour O_3 NAAQS concentrations are greater than their respective SILs. Therefore, full impact modeling analyses are required for these pollutants and averaging periods.

Tier 1 Demonstration for Ozone (NAAQS)

VOC MERP Calculation:

$$1.00ppb\ \left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$1.00ppb\left(\frac{1000\ tpy}{0.0644147769\ ug/m\text{^}3}\right)$$

$$= 15{,}524\ tpy$$

NOx MERP Calculation:

$$1.00ppb\ \left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$1.00ppb\left(\frac{500\ tpy}{2.595975176\ ug/m\text{^}3}\right)$$

$$= 192.61\ tpy$$

$$\left[\left(\frac{NOx\ Increase\ (tpy)}{NOx\ MERP\ (tpy)}\right)+\left(\frac{VOC\ Increase\ (tpy)}{VOC\ MERP\ (tpy)}\right)\right] < 1$$

The recommended ozone SIL of 1-ppb was chosen to represent the critical air quality threshold. The SIL represents a de-minimis impact level, that is, if the maximum concentration of ozone due to a single source is less than the SIL, then it can be concluded that the source has an insignificant contribution to ozone formation. The hypothetical source's modeled emission rate and impacts along with the ozone SIL were used to calculate the MERPs values below:

$$Modeled\ Air\ Quality\ Impact = (Critical\ Air\ Quality\ Threshold)\left(\frac{Project\ Emissions}{MERP}\right)$$

$$Modeled\ Air\ Quality\ Impact = (1ppb\ ozone)\left[\left(\frac{881\ TPY\ VOC}{15{,}524\ TPY\ VOC}\right)+\left(\frac{308\ TPY\ NOx}{192.6\ TPY\ NOx}\right)\right]$$

$$Modeled\ Air\ Quality\ Impact = 1.656\ ppb\ ozone$$

The modeled Air Quality Impact is not below the Ozone significant impact level. The proposed project will cause ozone concentrations exceeding the recommended significant impact level for ozone. Further analysis is required.

$PM_{2.5}$ Secondary Impact Assessment

$PM_{2.5}$ 24-Hour

SO_2 MERP Calculation:

$$1.2\ \frac{\mu g}{m^3}\left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$1.2\ \frac{\mu g}{m^3}\left(\frac{500\ tpy}{0.1923024058\ \frac{\mu g}{m^3}}\right)$$

$$= 3{,}120.09\ tpy$$

NOx MERP Calculation:

$$1.2\ \frac{\mu g}{m^3}\left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$1.2\ \frac{\mu g}{m^3}\left(\frac{500\ tpy}{0.0461239107\ \frac{\mu g}{m^3}}\right)$$

$$= 13{,}008.44\ tpy$$

$$\text{Modeled Air Quality Impact} = (\text{Critical Air Quality Threshold})\left(\frac{\text{Project Emissions}}{\text{MERP}}\right)$$

$$Modeled\ PM_{2.5}\ 24\ \text{Hr Air Quality Impact} = \left(1.2\ \frac{\mu g}{m^3}\right)\left[\left(\frac{53.7\ \text{TPY}\ SO_2}{3{,}120.09\ \text{TPY}\ SO_2}\right) + \left(\frac{308\ \text{TPY}\ NO_x}{13{,}008.44\ \text{TPY}\ NO_x}\right)\right]$$

$$\text{Modeled}\ PM_{2.5}\ 24\ \text{Hour Air Quality Impact} = 0.04907\ \frac{\mu g}{m^3}$$

$PM_{2.5}$ Annual

SO_2 MERP Calculation:

$$0.13\ \frac{\mu g}{m^3}\left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$0.13\ \frac{\mu g}{m^3}\left(\frac{500\ tpy}{0.0075118421\ \frac{\mu g}{m^3}}\right)$$

$$= 8{,}653\ tpy$$

NOx MERP Calculation:

$$0.13\ ug/m\text{^}3\ \left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$0.13\ \frac{\mu g}{m^3}\left(\frac{500\ tpy}{0.0019286179\ \frac{\mu g}{m^3}}\right)$$

$$= 33{,}702.89\ tpy$$

$$\text{Modeled Air Quality Impact} = (\text{Critical Air Quality Threshold})\left(\frac{\text{Project Emissions}}{\text{MERP}}\right)$$

$$Modeled\ PM_{2.5}\ \text{Annual Air Quality Impact} = \left(0.13\ \frac{\mu g}{m^3}\right)\left[\left(\frac{30.37\ \text{TPY}\ SO_2}{8{,}653\ \text{TPY}\ SO_2}\right) + \left(\frac{222.8\ \text{TPY}\ NO_x}{33{,}702.89\ \text{TPY}\ NO_x}\right)\right]$$

$$\text{Modeled}\ PM_{2.5}\ \text{Annual Air Quality Impact} = 0.001316\ \frac{\mu g}{m^3}$$

$PM_{2.5}$ NAAQS Assessment

$PM_{2.5}$ 24-Hour

$$5\,Year\ Average\ of\ 1st\ High + Secondary\ Impact =$$

$$0.97556\,\frac{\mu g}{m^3} + 0.04907\,\frac{\mu g}{m^3}$$

$$= 1.025\,\frac{\mu g}{m^3}$$

This value is below the SIL of 1.2 $\frac{\mu g}{m^3}$. Therefore, no further analysis is required.

$PM_{2.5}$ Annual

$$5\,Year\ Average\ of\ 1st\ High\ + Secondary\ Impact =$$

$$0.09313\,\frac{\mu g}{m^3} + 0.001316\,\frac{\mu g}{m^3}$$

$$= 0.09445\,\frac{\mu g}{m^3}$$

This value is below the SIL of 0.13 $\frac{\mu g}{m^3}$. Therefore, no further analysis is required.

$PM_{2.5}$ At and Past 50+ km

$PM_{2.5}$ 24-Hour

SO_2 MERP Calculation:

$$SIL\left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$0.27\,\frac{\mu g}{m^3}\left(\frac{500\,tpy}{0.1141955629\,tpy}\right)$$

$$= 1{,}182.18153469\,tpy$$

NOx MERP Calculation:

$$0.27\,\frac{\mu g}{m^3}\left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$0.27\ \frac{\mu g}{m^3}\left(\frac{500\ tpy}{0.0453474037\ \frac{\mu g}{m^3}}\right)$$

$$= 2{,}977.01718257\ tpy$$

$$\text{Modeled Air Quality Impact} = (\text{Critical Air Quality Threshold})\left(\frac{\text{Project Emissions}}{\text{MERP}}\right)$$

$$Modeled\ PM_{2.5}\ 24\ \text{Hr Air Quality Impact} = \left(0.27\ \frac{\mu g}{m^3}\right)\left[\left(\frac{53.7\ \text{TPY}\ SO_2}{1{,}182.18\ \text{TPY}\ SO_2}\right) + \left(\frac{308\ \text{TPY}\ NO_x}{2{,}977.02\ \text{TPY}\ NO_x}\right)\right]$$

$$\text{Modeled } PM_{2.5}\ 24\ \text{Air Quality Impact} = 0.04020\ \frac{\mu g}{m^3}$$

This value is below the SIL of 0.27 $\frac{\mu g}{m^3}$. Therefore, no further analysis is required.

$PM_{2.5}$ Annual

SO_2 MERP Calculation:

$$0.03\ \frac{\mu g}{m^3}\left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$0.03\ \frac{\mu g}{m^3}\left(\frac{500\ tpy}{0.003950939\ \frac{\mu g}{m^3}}\right)$$

$$= 3{,}796.50721336\ tpy$$

NOx MERP Calculation:

$$0.03\ \frac{\mu g}{m^3}\left(\frac{Selected\ Hyopthetical\ MERP)}{MaxConc}\right)$$

$$0.03\ \frac{\mu g}{m^3}\left(\frac{500\ tpy}{0.0014621763\ \frac{\mu g}{m^3}}\right)$$

$$= 10{,}258.6808444\ tpy$$

$$\text{Modeled Air Quality Impact} = (\text{Critical Air Quality Threshold})\left(\frac{\text{Project Emissions}}{\text{MERP}}\right)$$

$$\text{Modeled } PM_{2.5} \text{ Annual Air Quality Impact} = \left(0.03\frac{\mu g}{m^3}\right)\left[\left(\frac{30.37 \text{ TPY } SO_2}{3{,}796.51 \text{ TPY } SO_2}\right)+\left(\frac{222.8 \text{ TPY } NO_x}{10{,}258.68 \text{ TPY } NO_x}\right)\right]$$

$$\text{Modeled } PM_{2.5} \text{ Annual Hour Air Quality Impact} = 0.0008916\frac{\mu g}{m^3}$$

This value is below the SIL of 0.03 $\frac{\mu g}{m^3}$. Therefore, no further analysis is required.

Increment Consumption

PSD increment consumption limits currently exist for NO_2, SO_2, PM_{10}, and $PM_{2.5}$. Compliance with the PSD increment consumption limits must be demonstrated for sources with PSD significant emissions. A preliminary impact determination is conducted to determine if the predicted off property concentrations associated with the proposed increase in PSD-significant emissions are greater than the EPA's SILs. No further modeling is required to demonstrate compliance if the maximum predicted concentration is below the SIL. If the maximum predicted concentration is equal to or greater than the SIL, all on site sources must be included in a full impact modeling analysis. Contributions from off-site sources that may impact the AOI are accounted for using ambient air monitoring data or by direct inclusion in the full impact modeling analysis. The AOI is defined as all locations with predicted concentrations that are equal to or greater than the established SILs.

A preliminary impacts determination was first conducted using project-related emissions to determine if a detailed PSD increment consumption analysis is required. This process is described in greater detail in Section 5.2.2. A full impact analysis was then performed for applicable NO_2, PM_{10}, and $PM_{2.5}$ emissions for comparison to the PSD increment consumption limits. This analysis included PSD increment-consuming emissions from sitewide TAPS sources and from PSD increment-consuming emission sources affecting the project's impact area. Increment consuming sources include:

- Direct and precursor allowable emissions from the proposed new source.
- Direct and precursor actual emission changes that have occurred at existing sources since the minor source baseline date for the proposed source's baseline area.

- Direct and precursor actual emissions from any major stationary source permitted prior to October 20, 2010 (major source baseline date for $PM_{2.5}$) for which construction on such permit commenced after October 20, 2010.

- Direct and precursor allowable emissions of permitted sources permitted after the minor source baseline date that are not yet fully operative, if applicable.

The USEPA defines the baseline area to include (1) the facility submitting the first PSD application after the pollutant's trigger date and (2) any areas where the proposed emissions of this facility have a significant impact. For this purpose, a significant impact is defined as an annual increase greater than one microgram per cubic meter (µg/m3) of the pollutant. In Mississippi, attainment status is listed by individual counties.

The full impact modeling analysis utilized receptor grids following the MDEQ guidelines. Only receptors with predicted concentrations equal to or greater than the SIL in the preliminary modeling analysis were used.

$PM_{2.5}$ Increment Assessment

$PM_{2.5}$ 24-Hour

$$1st\ High\ (of\ 5\ Years)\ +Secondary\ Impact =$$

$$1.36778\,\frac{\mu g}{m^3} + 0.04907\,\frac{\mu g}{m^3}$$

$$= 1.417\,\frac{\mu g}{m^3}$$

This value is not below the SIL of 1.2 $\frac{\mu g}{m^3}$. Therefore, further analysis is required.

$PM_{2.5}$ Annual

$$1st\ High\ (of\ 5\ Years)\ +Secondary\ Impact =$$

$$0.09985\,\frac{\mu g}{m^3} + 0.001316\,\frac{\mu g}{m^3}$$

$$= 0.1012\,\frac{\mu g}{m^3}$$

This value is below the SIL of 0.13 $\frac{\mu g}{m^3}$. Therefore, no further analysis is required.

E. PSD Full Impact Analysis Modeling Impacts

A full impact analysis is required for any pollutant for which the proposed source's estimated ambient pollutant concentrations exceed prescribed significant ambient impact levels. This analysis expands the preliminary analysis in that it considers emissions from: the proposed source; existing sources; residential, commercial, and industrial growth that accompanies the new activity and the new source or modification. For SO_2, PM_{10}, $PM_{2.5}$ and NO_2, the full impact analysis consists of separate analyses for the NAAQS and PSD increments.

The impact area is a circular area with a radius extending from the source to (1) the most distant point where approved dispersion modeling predicts a significant ambient impact will occur, or (2) a modeling receptor distance of 50 km, whichever is less.

Minor Source Baseline

Minor Source Baseline Date means the earliest date after the trigger date on which a new major stationary source or a major modification to an existing source subject to PSD submits a complete application. The minor source baseline date is pollutant and geographically specific. The trigger date for $PM_{2.5}$ is October 20, 2011. TAPS will establish the minor source baseline date in Madison County for $PM_{2.5}$.

NAAQS

The NAAQS are maximum concentration "ceilings" measured in terms of the total concentration of a pollutant in the atmosphere. For a new or modified source, compliance with any NAAQS is based upon the total estimated air quality, which is the sum of the ambient estimates resulting from existing sources of air pollution and the modeled ambient impact caused by the applicant's proposed emissions increase and associated growth. The applicant is required, at a minimum, to explicitly model all nearby sources as part of the NAAQS analysis. The modeling guideline defines a "nearby" source as any point source within the vicinity of the proposed new source or modification. For PSD purposes, "vicinity" is defined as the impact area. The location of such nearby sources could be anywhere within the impact area or an annular area extending 50 kilometers beyond the impact area.

TABLE 12-6 NAAQS ANALYSIS – FORM OF MODELING RESULTS AND BACKGROUND CONCENTRATION

POLLUTANT	AVERAGING PERIOD	MAXIMUM PREDICTED CONCENTRATIONS (µg/m³)	BACKGROUND CONCENTRATION (µg/m³)	NAAQS (µg/m³)
O_3	8-Hour	Conservative Maximum (from MERP analysis)	3-Year Average of the 4th Highest Daily 8-Hour Maximums	70 ppb

TABLE 12-7 NAAQS ANALYSIS RESULTS

POLLUTANT	AVERAGING PERIOD	MAXIMUM PREDICTED CONCENTRATIONS (µg/m³)	BACKGROUND CONCENTRATION (µg/m³)	TOTAL (µg/m³)	NAAQS (µg/m³)
O_3	8-Hour	1.656 ppb*	62 ppb	63.66 ppb	70 ppb

* Estimated secondary O_3 impact from Section 12.1.1 MERP analysis

Ozone NAAQS Cumulative Analysis Impact

$$NAAQS\,Value > Modeled\,Air\,Quality\,Impact + Monitored\,Design\,Value$$
$$70ppb > 1.656\ ppb + 62\ ppb$$
$$70ppb > 63.656\ ppb$$

The air quality level is less than the NAAQS, therefore, no NAAQS violation is found, and the facility does not cause or contribute to a violation.

PSD Class II Increment

A PSD increment is the maximum allowable increase in concentration that is allowed to occur above a baseline concentration for a pollutant. The baseline concentration is defined for each pollutant and, in general, is the ambient concentration existing at the time that the first complete PSD permit application affecting the area is submitted. Emissions increases that consume a portion of the applicable increment are, in general, all those not accounted for in the baseline concentration and specifically include:

- Actual emissions increases occurring after the major source baseline date, which are associated with physical changes or changes in the method of operation at a major stationary source; and

- Actual emissions increase at any stationary source, area source, or mobile source occurring after the minor source baseline date.

24-Hour $PM_{2.5}$ Increment

MODELING RUN SUMMARY
MADISON COUNTY ADVANCED POWER STATION
RIDGELAND, MISSISSIPPI

TYPE OF RUN	POLLUTANT	RUN NUMBER	FILE NAME	MET YEAR	GROUP	MAXIMUM OFF-PROPERTY IMPACTS (µg/m3)							
						1-HR		8-HR	24-HR			ANNUAL	
						H1H	AVG H1H	H1H	H1H	AVG H1H	H2H	H1H	AVG
Preliminary AOI	NO2	1001	tstA02to30_2020-2024_01NOX_FULL		FULL		5.24376						
		1002	tstA02to30_2020-2024_01NOX_MID		MID		5.24185						
		1003	tstA02to30_2020-2024_01NOX_LOW		LOW		5.24086						
		1004	tstA02to30_2020-2024_01NOX_SUSDA		SUSDA		6.3408						
		1005	tstA02to30_2020_99NOX		ALL							0.22383	
		1006	tstA02to30_2021_99NOX		ALL							0.23964	
		1007	tstA02to30_2022_99NOX		ALL							0.21436	
		1008	tstA02to30_2023_99NOX		ALL							0.20817	
		1009	tstA02to30_2024_99NOX		ALL							0.21979	
	CO	1010	tstA02to30_2020-2024_01CO		FULL	114.4399							
		1011	tstA02to30_2020-2024_01CO		MID	114.4396							
		1012	tstA02to30_2020-2024_01CO		LOW	114.4394							
		1013	tstA02to30_2020-2024_01CO		SUSDH	665.3855							
		1014	tstA02to30_2020-2024_01CO		SUSDW	739.7128							
		1015	tstA02to30_2020-2024_01CO		SUSDC	771.8966							
		1016	tstA02to30_2020-2024_08CO		FULL			10.74803					
		1017	tstA02to30_2020-2024_08CO		MID			10.74652					
		1018	tstA02to30_2020-2024_08CO		LOW			10.74579					
		1019	tstA02to30_2020-2024_08CO		SUSDH			64.65934					
		1020	tstA02to30_2020-2024_08CO		SUSDW			81.10267					
		1021	tstA02to30_2020-2024_08CO		SUSDC			108.8269					
	PM10	1022	tstA02to30_2020-2024_24PM10		FULL				1.36778				
		1023	tstA02to30_2020-2024_24PM10		MID				0.92604				
		1024	tstA02to30_2020-2024_24PM10		LOW				0.92384				
		1025	tstA02to30_2020_99PM10		ALL							0.09437	
		1026	tstA02to30_2021_99PM10		ALL							0.09985	
		1027	tstA02to30_2022_99PM10		ALL							0.0946	
		1028	tstA02to30_2023_99PM10		ALL							0.09134	
		1029	tstA02to30_2024_99PM10		ALL							0.08654	

MODELING RUN SUMMARY
MADISON COUNTY ADVANCED POWER STATION
RIDGELAND, MISSISSIPPI

TYPE OF RUN	POLLUTANT	RUN NUMBER	FILE NAME	MET YEAR	GROUP	MAXIMUM OFF-PROPERTY IMPACTS (µg/m3)							
						1-HR		8-HR	24-HR			ANNUAL	
						H1H	AVG H1H	H1H	H1H	AVG H1H	H2H	H1H	AVG
Preliminary AOI	PM2.5	1030	tstA02to30_2020-2024_24PM25_max		FULL				1.36778				
		1031	tstA02to30_2020-2024_24PM25_max		MID				0.92604				
		1032	tstA02to30_2020-2024_24PM25_max		LOW				0.92384				
		1033	tstA02to30_2020_99PM25_max		ALL							0.09437	
		1034	tstA02to30_2021_99PM25_max		ALL							0.09985	
		1035	tstA02to30_2022_99PM25_max		ALL							0.0946	
		1036	tstA02to30_2023_99PM25_max		ALL							0.09134	
		1037	tstA02to30_2024_99PM25_max		ALL							0.08654	
		1038	tstA02to30_2020-2024_24PM25_avg		FULL					0.97556			
		1039	tstA02to30_2020-2024_24PM25_avg		MID					0.60263			
		1040	tstA02to30_2020-2024_24PM25_avg		LOW					0.59986			
		1041	tstA02to30_2020-2024_99PM25_avg		ALL								0.09313
Preliminary Near	NO2	1042	tstA02at50_2020_99NOX		ALL							0.00745	
		1043	tstA02at50_2021_99NOX		ALL							0.00911	
		1044	tstA02at50_2022_99NOX		ALL							0.00791	
		1045	tstA02at50_2023_99NOX		ALL							0.00686	
		1046	tstA02at50_2024_99NOX		ALL							0.00724	
	PM10	1047	tstA02at50_2020-2024_24PM10		FULL				0.14653				
		1048	tstA02at50_2020-2024_24PM10		MID				0.08188				
		1049	tstA02at50_2020-2024_24PM10		LOW				0.06603				
		1050	tstA02at50_2020_99PM10		ALL							0.00568	
		1051	tstA02at50_2021_99PM10		ALL							0.00699	
		1052	tstA02at50_2022_99PM10		ALL							0.00605	
		1053	tstA02at50_2023_99PM10		ALL							0.00527	
		1054	tstA02at50_2024_99PM10		ALL							0.00553	
	PM2.5	1055	tstA02at50_2020-2024_24PM25_max		FULL				0.14653				
		1056	tstA02at50_2020-2024_24PM25_max		MID				0.08188				
		1057	tstA02at50_2020-2024_24PM25_max		LOW				0.06603				
		1058	tstA02at50_2020_99PM25_max		ALL							0.00568	
		1059	tstA02at50_2021_99PM25_max		ALL							0.00699	
		1060	tstA02at50_2022_99PM25_max		ALL							0.00605	
		1061	tstA02at50_2023_99PM25_max		ALL							0.00527	
		1062	tstA02at50_2024_99PM25_max		ALL							0.00553	

MODELING RUN SUMMARY
MADISON COUNTY ADVANCED POWER STATION
RIDGELAND, MISSISSIPPI

TYPE OF RUN	POLLUTANT	RUN NUMBER	FILE NAME	MET YEAR	GROUP	MAXIMUM OFF-PROPERTY IMPACTS (µg/m3)							
						1-HR		8-HR	24-HR			ANNUAL	
						H1H	AVG H1H	H1H	H1H	AVG H1H	H2H	H1H	AVG
Full Impact, PSD Increment	PM2.5	1063	tstP02pm2524_2020_24PM25		FULL						1.14542		
		1064	tstP02pm2524_2021_24PM25		FULL						1.19769		
		1065	tstP02pm2524_2022_24PM25		FULL						1.2211		
		1066	tstP02pm2524_2023_24PM25		FULL						0.95597		
		1067	tstP02pm2524_2024_24PM25		FULL						1.03026		

- Modeling runs numbered 1001 through 1041 represent the preliminary impact analysis modeling conducted for the proposed increases in NO_2, CO, PM_{10} and $PM_{2.5}$ allowable emissions.

- Modeling run numbers 1005 through 1009, and 1016 through 102 represent the preliminary modeling conducted for the proposed PSD-significant increases in NO_2, CO, and PM_{10}.

- Modeling run numbers 1030 through 1062 represent the preliminary modeling conducted for the proposed PSD-significant increases in NO_2, PM_{10}, and $PM_{2.5}$.

- Modeling runs numbered 1063 through 1067 represent the full impact PSD Increment modeling conducted for $PM_{2.5}$.

TABLE 12-8 PSD INCREMENT CONSUMPTION ANALYSIS RESULTS

POLLUTANT	AVERAGING PERIOD	MAXIMUM PREDICTED CONCENTRATIONS AT EACH RECEPTOR (µg/m³)		PSD INCREMENT CONSUMPTION LIMIT (µg/m³)
$PM_{2.5}$	24-Hour	2nd High (of 5 Years)	1.270 *	9

* Includes estimated secondary $PM_{2.5}$ impact from Section 12.1.1 MERP analysis

The predicted $PM_{2.5}$ concentrations are less than the PSD increment consumption limits for all applicable averaging periods.

F. Vegetation and Soils Impact

VOCs are regulated as precursors to tropospheric ozone. Elevated ground-level ozone concentrations can damage plant life and crop production. VOCs interfere with the ability of plants to produce and store food, making them more susceptible to disease, insects, or other pollutants and harsh weather. Ozone is formed by the interaction of NOx, VOCs, and sunlight in the atmosphere. The effect of a proposed project's emissions on local soils and vegetation is often addressed through comparison of modeled impacts to the secondary NAAQS. The secondary NAAQS were established to protect general public welfare and the environment. Impacts below the secondary NAAQS are assumed to indicate a lack of adverse impacts on soils and vegetation.

The emissions from the proposed modification will not significantly affect any soils or vegetation within the area (i.e., the modeling domain). There are no predicted exceedances of the Primary or Secondary NAAQS due to the proposed emissions. Primary NAAQS set limits to protect public health, with an adequate margin of safety. "Public health" is defined to include the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary NAAQS set limits to protect public welfare from any known or anticipated adverse effects associated with the presence of such a pollutant. "Public welfare" includes protection against decreased visibility, damage to animals, crops, vegetation, and buildings. Therefore, possible adverse impacts from this project are not expected.

G. Associated Growth Impact

The MDEQ's AQMG states that "An in-depth growth analysis is only required if the project would result in a significant shift in population and associated activity into the area (i.e., a population increase on the order of thousands of people)." Employment within this area (i.e., within the modeling domain) will not significantly increase as a result of the proposed project. Also, there will not be any significant impacts due to any changes in the population size or

density, or changes in the type of development in the area. Therefore, possible adverse impacts from this project are not expected.

H. Class I Impact and Visibility

The Federal Land Managers' Air Quality Related Values Work Group (FLAG), Phase I Report – Revised (2010), provides recommendations, specific procedures, and interpretation of results for assessing visibility impacts of new or modified sources on Class I Area resources. Section 3.2., Initial Screening Criteria (New), presents a screening tool, Q/D, (where Q is the total SO_2, NO_x, PM_{10}, and H_2SO_4 annual emissions divided by D, the distance from the Class I Area) to screen out from Air Quality Related Values (AQRV) review for those sources with relatively small amounts of emissions located at a large distance from a Class I Area. If this value is less than or equal to 10, the source will be considered to have negligible impacts with respect to Class I AQRV. The Federal Land Manager (FLM) (and the Federal official with direct responsibility for management of the Federal Class I parks as wilderness areas) will not request any further Class I AQRV impact analysis. As a minimum, the permitting authority should notify the FLM of all sources that exceed the Q/D criteria.

$$Q/D = \frac{(SO_2 + NO_x + PM_{10} + H_2SO_4)}{Distance\ from\ Class\ I\ Area}$$

TAPS is not located within 300km of a Class I area and therefore will not be required to perform a Q/D screening or an Air Quality Related Values (AQRV) impact analysis.

I. Class II Impact and Visibility

The increased emissions are not expected to degrade the existing visibility. There are no Class I Areas within 100 km of the proposed project. A Class II visibility analysis is not required since the proposed project will comply with all regulatory requirements for opacity (11 MAC, Part 2, Chapter 1). Additionally, the areas of significant $PM_{2.5}$ and NO_2 impacts extend to distances of 1.2 km and 3.5 km from the turbine stack, respectively. There are no sensitive Class II areas within these areas of significant impacts.

EML has extensive experience operating natural gas-fired combustion turbine EGUs at numerous locations. Because low-sulfur pipeline-quality natural gas is such a clean-burning fuel, to the best of EML's knowledge there has never been a circumstance where operation of such an EGU has resulted in visibility impairment at any on-site or off-site receptor or area. This statement is true for routine operations as well as maintenance, startup, and shutdown operations of EML's combustion turbine EGUs. The emissions of visibility impairing pollutants, including sulfates, NOx, and PM/soot, are very low because (1) clean burning low-

sulfur pipeline quality gas will be fired and (2) state-of-the art emission controls will be employed. Based on our extensive experience operating natural gas-fired combustion turbine EGUs, EML is confident in asserting that the TAPS will not cause or contribute to visibility impairment at any off-site receptor or area, including all nearby airports, state forests, parks, scenic vistas, areas of special historic interest, or any other sensitive areas.

VI. Recommendation

The staff of the Permit Board has developed the draft permit and preliminary determination based on information submitted to the Permit Board by the applicant. The staff of the Permit Board is soliciting all relative information pertaining to the proposed activity, including a 30-day public comment, EPA review, and FLM review, to ensure that the final staff recommendation on the draft permit complies with all State and Federal regulations. The Public, EPA, and FLM review and comment on the draft permit and supporting documentation is an important element in the staff evaluation and resulting recommendation to the Permit Board. After a thorough consideration of the expressed views of all interested persons, pertinent federal/state statutes and regulations, supplemental information/modeling submitted by Cooperative Energy, a Mississippi Electric Cooperative, R.D. Morrow, Sr., Generating Plant any additional material relevant to the application, and after an appropriate resolution of all the comment, will MDEQ staff recommend issuance of the proposed/final draft PSD permit to Construct in accordance with 11 Miss. Admin. Code Pt. 2 - Air Regulations, 40 CFR Part 52.21 – Prevention of Significant Deterioration of Air Quality, and 40 CFR 51 Appendix W – Guidelines on Air Quality Models. The draft permit conditions have been developed to ensure compliance with all State and Federal regulations but are subject to change based on information received as a result of public, EPA, and FLM participation.