



September 16, 2022

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:

LDEQ Initial Part 70 Operating Permit
No. 1280-00292-V0

For Magnolia Power Generating Station Unit 1

Issued by the Louisiana Department of
Environmental Quality

**PETITION FOR OBJECTION TO THE INITIAL PART 70 AIR PERMIT FOR
MAGNOLIA POWER GENERATING STATION UNIT 1 FINALIZED ON JUNE 3, 2022**

Pursuant to section 505(b)(2) of the Clean Air Act, 42 U.S.C. § 7661d(b)(2), and 40 C.F.R. § 70.8(d), Sierra Club petitions the Administrator of the U.S. Environmental Protection Agency (“EPA”) to object to the Title V Initial Part 70 Operating Permit issued by the Louisiana Department on Environmental Quality (“LDEQ”) on June 3, 2022, to Magnolia Power LLC, Title V Permit No. 1280-00292-V0 for the Magnolia Power Generating Station Unit 1.

The proposed site location is 26620 River Road, Plaquemine, Louisiana 70764 in Iberville Parish. The facility is expected to replace around 2,700 MW peak load of older coal-fired generation used by electric cooperatives in Louisiana as stated in the Initial PSD, Title V & Acid Rain Permit Application for Magnolia Power Generating Station Unit 1. It will be an

exclusively natural gas-fired unit with a heat recovery steam generator (“HRSG”) equipped with duct burners and a steam turbine. Other equipment will include a cooling tower, emergency generator, emergency diesel firewater pump, an auxiliary boiler, and atmospheric storage tanks.

If constructed, the plant will emit nearly 700 hundred tons per year of harmful particulate matter, nitrogen oxides, carbon monoxide, and volatile organic compounds¹ in a community that has been overburdened with air pollution for decades. The proposed facility will also be a major source of Hazardous Air Pollutants, emitting more than 25 tons per year of toxic and carcinogenic substances like benzene, formaldehyde, and Toluene.² Moreover, the plant will emit more than 2.5 million tons per year of greenhouse gas emissions.³

The proposed location is an approximately 150-acre plot of land near the West Bank of the Mississippi River southeast of the town of Plaquemine, and across the River from the city of St. Gabriel. The nearest residential property is “about 2000 ft. from the property boundary, to the southeast.”⁴ The combined effects of natural disasters and overwhelming exposure to significant air and water pollution from nearby facilities have left an already vulnerable population exposed to significant health and environmental risks.

EPA must object to the current permit because:

1. **The permit relies on the impermissible use of significant impact levels to determine whether the projected emissions are within the national limit.** The Magnolia application and proposed permit conclude that no further analysis of air quality impacts is required because the proposed facility’s potential to emit does

¹ LDEQ, Air Permit Briefing Sheet at 2-3.

² *Id.* at 3.

³ *Id.* at 2.

⁴ Application, App’x F at 238.

not exceed the SILs for each criteria pollutant. In *Sierra Club v. EPA*, the court rejected the claim that EPA (like LDEQ here) could declare that any contribution below a significance level cannot “cause or contribute” to a violation of the federal air standards. Additionally, in 2020, the United States Court of Appeals for the District of Columbia explained that the SILs Guidance still “requires any permitting decision relying on the Guidance be supported with a robust record, and does not prevent challenges to individual permitting decisions.” Moreover, “simply quoting” the SILs guidance “is not sufficient to support a permitting decision . . . without more evidence in the record, including technical and legal documents.” LDEQ failed to develop the kind of “robust record” required to justify its conclusion that Magnolia’s emissions would not contribute to any violation of the NAAQS or an increment.

2. **The analysis relied on to determine if the emissions met the national limits is flawed.** Magnolia improperly relied on incorrect AP-42 emission factors that EPA has recognized are unrepresentative of emissions for numerous pollutants. As detailed in the Sahu Report, virtually every one of the AP-42 emission factors relied upon by Magnolia are rated as poor or very poor reliability. Magnolia’s modeling indicates that PM_{2.5} impacts from the proposed plant would be 71% of the SIL, leaving little room for error. Moreover, as discussed in the attached Sahu Report, Magnolia’s primary and secondary PM_{2.5} estimates of 0.861 and 0.041 ug/m³ were both improperly developed using EPA’s Modeled Emission Rates for Precursors (“MERP”) approach, and likely substantially underestimate the total PM impacts of the facility. The PSD provisions of the Act prohibit the issuance of

a permit unless the applicant demonstrates that it “will not cause or contribute” to “any” exceedance of the applicable air quality standard. Despite the vacatur of EPA’s PM2.5 regulation, and EPA’s failure to revisit the rule, LDEQ continues to rely on the unlawful SIL to avoid comprehensive analyses of air quality impacts in Louisiana.

3. **The BACT analysis is similarly flawed.** As detailed in the attached Sahu Report, Magnolia’s Application failed to conduct an appropriate Best Available Control Technology (“BACT”) analysis for emissions of nitrogen oxides, carbon monoxide, and volatile organic compounds from the proposed turbine. Specifically, the permit itself continues to rely on similar, recently-permitted sources with lower emissions limits, yet arbitrarily fails to provide any justification for why those lower limits should not apply to the proposed project. It is the Applicant’s and LDEQ’s burden (not Sierra Club’s or the public’s) to demonstrate that the selected BACT limitations are, in fact, the best available options. LDEQ’s implication that Sierra Club should have done Magnolia’s job for it, is without merit, and not a valid basis for rejecting expert analysis demonstrating that the proposed permit is not BACT.
4. **The proposed conditions of the permit are not enforceable, and therefore unlawful.** The Magnolia Permit fails to include the emission limitations, monitoring, or reporting provisions necessary to ensure compliance with the permit terms or to ensure that the permit is actually enforceable. LDEQ must revise the end of startup and beginning of shutdown using objective, practically enforceable criteria. the proposed permit’s repeated references to “good

combustion” practices, “proper operation,” or “proper equipment design” are likewise unenforceable, unverifiable, and unlawful. LDEQ must define this term for each pollutant if it intends that it should be part of BACT. And, it should do so, relying on objective, measurable parameters or criteria, so that it is enforceable in each case. The permit references compliance with the “manufacturer’s instructions” as a specific condition for the operation of the main turbine and the auxiliary boiler. It is impossible for the public or LDEQ to verify or monitor whether Magnolia is complying with those “instructions.” Moreover, as noted in the Sahu Report and below, the vendor for the Magnolia turbines is not even identified in the record; nor is there any record of instructions Magnolia is required to follow.

5. **The permit fails to analyze the adverse and negative impacts of the project on the surrounding community and on communities of color in particular.**

Under Executive Order 12898 a state environmental regulatory agency that receives federal funds for its Title V program, such as LDEQ, must require an EJ review when making major environmental permitting decisions and identify whether a proposed permit will result in any “disproportionately high and adverse human health or environmental effects” on minority or low-income populations. The data thus shows that the proposed site for the facility is located within an area that has a significantly higher African-American population than the parish as a whole or the state. However, the company declines to present the required mitigation or remedial measures with respect to the communities but instead says it will “consider these community characteristics in the development of future

outreach and community investment initiatives...”. Without an adequate analysis of adverse impacts or potential plans to mitigate these impacts, LDEQ should have rejected the permit. LDEQ similarly cannot blindly accept the Company’s promise to conduct studies or its conclusory assertions that the impacts of the proposed plant on air, water, noise, and light pollution will be minimal. Instead, those studies must be made part of the record so that LDEQ and the public can review and comment on it. Without including those documents in the record, neither the public nor LDEQ can meaningfully evaluate the environmental impacts of the proposed plant, and it would be arbitrary and capricious to approve the permit without those documents.

PETITIONERS

Sierra Club is the oldest and largest grassroots environmental group in the United States, with 67 chapters and approximately 830,000 members nationwide, including approximately 3,310 members in Louisiana, dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth’s ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. Sierra Club’s members live, work, attend school, travel, and recreate in and around the areas that will be affected by the Magnolia Power Generating Station’s emissions.

PROCEDURAL BACKGROUND

Magnolia Power LLC (“Magnolia Power”) submitted its initial permit application to develop a 730-megawatt (“MW”) combined cycle gas turbine (“CCGT”) facility in Iberville Parish, Louisiana on May 27, 2020. LDEQ held a public comment period from October 13,

2021, when the notice was first posted, until November 17, 2021, when the comment period was closed. LDEQ received a request for a public hearing on the proposed permits and the hearing was held on January 27, 2022. The proposed permits were submitted to EPA on April 14, 2022, in accordance with 40 C.F.R. § 70.8(A)(1)(ii) and LAC 33:111:533.B.2.b. EPA's responsive comments were dated May 23, 2022. The Initial Part 70 Air Permit was finalized on June 3, 2022.

LEGAL BACKGROUND

Under the Clean Air Act, major sources of air pollution, like the Magnolia facility, must obtain a permit that meets the requirements of Title V (i.e., a "Title V permit"). *See* 42 U.S.C. §§ 7661a, 7661c. The Title V permit governs all of the specifics of how the source is allowed to operate once it is built and operating. The purpose of the Title V permit is to facilitate compliance and enforcement by "enabl[ing] the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." EPA Operating Permit Program, Final Rule, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992). In issuing a Title V permit, LDEQ must put into place conditions such as testing, monitoring, reporting, and recordkeeping that are sufficient to "assure compliance" with all applicable Clean Air Act requirements, including emission limits set in and Prevention of Significant Deterioration ("PSD") permits for the facility. 42 U.S.C. § 7661c(a), (c); 40 C.F.R. §§ 70.6(a)(1), (c)(1); LAC 33:III.507.H; *see also* 40 C.F.R. § 70.2 (defining "applicable requirements").

If a state proposes a Title V permit that fails to include and assure compliance with all applicable Clean Air Act requirements, EPA must object to the issuance of the permit before the end of its 45-day statutory review period. 42 U.S.C. § 7661d(b)(1); 40 C.F.R. § 70.8(c). If EPA

does not object to a Title V permit, “any person may petition the Administrator within 60 days after the expiration of the Administrator’s 45-day review period . . . to take such action.” 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). The Clean Air Act provides that EPA “shall issue an objection . . . if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements” of the Act. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1); *see also N.Y. Pub. Int. Rsch. Group v. Whitman*, 321 F.3d 316, 333 n.12 (2d Cir. 2003) (explaining that under Title V, “EPA’s duty to object to non-compliant permits is nondiscretionary”). EPA must grant or deny a petition to object within 60 days of its filing. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). For the reasons discussed below, EPA should deny the proposed permits.

BASIS FOR OBJECTION

I. THE PERMIT IMPERMISSIBLY RELIES ON SIGNIFICANT IMPACT LEVELS TO EXEMPT MAGNOLIA FROM THE REQUIREMENTS OF THE CLEAN AIR ACT.

The Magnolia modeling analysis impermissibly relies on the EPA’s guidance on Significant Impact Levels (“SILs”) to exempt Magnolia from the cumulative impact requirements of the Clean Air Act and LDEQ issued the permit in the face of evidence demonstrating that the Magnolia plant is responsible for up to 71% of the Significant Impact Level for fine particulate matter (“PM_{2.5}”).⁵ LDEQ cites the EPA’s “Legal Memorandum: Application of Significant Impact Levels in the Air Quality Demonstration for Prevention of Significant Deterioration Permitting under the Clean Air Act” as the legal basis for their use of SILs. For PM_{2.5} and ozone, LDEQ further relied on EPA’s “Guidance on Significant Impact

⁵ Magnolia Power, LLC, Updated Air Dispersion Modeling Report at 18 (EDMS Doc. No. 12927054 at pdf page 249) (hereinafter, “Magnolia Air Dispersion Modeling”).

Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program,” dated April 17, 2018 and “Technical Basis for the EPA’s Development of the Significant Impact Thresholds for PM2.5 and Ozone,” also dated April 2018. LDEQ further concluded that, “where SIL values developed by EPA are used to show a source that does not cause or contribute to a violation, the permit-specific record can incorporate the information and technical analysis provided by EPA to show that a source with a projected impact below the relevant SIL value will not cause or contribute to a violation of the National Ambient Air Quality Standard (“NAAQS”) or Prevention of Significant Deterioration (“PSD”) increment.”⁶ At the outset, the Clean Air Act unambiguously prohibits the use of SILs to make permit determinations. The Clean Air Act and Louisiana’s PSD provisions require Magnolia to demonstrate that the emissions from its proposed power plant:

will not cause, or contribute to, air pollution in excess of *any* (A) maximum allowable increase or maximum allowable concentration for *any* pollutant in *any* area to which this part applies more than one time per year, [or] (B) national ambient air quality standard in *any* air quality control region.⁷

Where, as here, a source’s modeling shows that it would likely contribute to potential violations of the NAAQS or a PSD increment, the agency cannot issue a permit without some action taken to mitigate the source's impact.⁸ *See, e.g.*, 40 C.F.R. § 51.165(b)(2) (requiring a major stationary source that contributes to the violation of the NAAQS to “reduce the impact of

⁶ LDEQ, Basis for Decision: Part 70 Operating Permit No. 1280-00292-V0 Acid Rain Permit No. 1280-00292-IV0 Prevention of Significant Deterioration Permit PSD-LA-839 at 35 (hereinafter “Basis for Decision”).

⁷ *See id.*

⁸ *See, e.g.*, 40 C.F.R. § 51.165(b)(2) (requiring a major stationary source that contributes to the violation of the NAAQS to “reduce the impact of its emissions upon air quality by obtaining sufficient emission reductions to, at a minimum, compensate for its adverse ambient impact where the major source or major modification would otherwise cause or contribute to a violation...”).

its emissions upon air quality by obtaining sufficient emission reductions to, at a minimum, compensate for its adverse ambient impact where the major source or major modification would otherwise cause or contribute to a violation...”). Yet, the Magnolia application and proposed permit conclude that no further analysis of air quality impacts is required because the proposed facility’s potential to emit does not exceed the SILs for each criteria pollutant.⁹

Congress used mandatory and expansive language throughout Section 7475(a) to make its directive clear for EPA or LDEQ: “no” covered source may be constructed, “unless” that source “demonstrates” that it “will not” “cause, or contribute to,” “any” violation of the NAAQS or “any” increment.¹⁰ Congress specifically used the terms “cause” and “contribute” together to ensure the PSD program would prevent increments and the NAAQS from being exceeded by considering all possible violations or contributions to violations.¹¹ A contribution to an ongoing violation can be either quite small or quite large: the term “contribute,” “has no inherent connotation as to the magnitude or importance of the relevant ‘share’ in the effect; certainly it does not incorporate any ‘significance’ requirement.”¹² In short, the Clean Air Act does not allow LDEQ to sidestep demonstrating that air quality would meet the NAAQS and increments, simply because an agency believes a facility’s emissions would not make a significant enough contribution to any violations.

Applying those principles, the Clean Air Act and Louisiana law unambiguously prohibit the kind of *de minimus* exemption that LDEQ’s use of the SILs creates. In *Sierra Club v. EPA*,

⁹ Magnolia Air Dispersion Modeling at 18 (EDMS Doc. No. 12927054 at pdf page 249).

¹⁰ See *Alabama Power Co. v. Costle*, 636 F.2d 323, 362 (D.C. Circuit 1979); H.R. Rep. No. 95-294 at 9; S. Rep. No. 95-127 at 11, 32 (1977); see also 42 U.S.C. § 7475(a)(3).

¹¹ *Alabama Power Co.*, 636 F.2d at 362.

¹² *Bluewater Network v. EPA*, 370 F.3d 1, 13 (D.C. Cir. 2004) (interpreting nearly identical language in another section of the Clean Air Act).

705 F.3d 458 (D.C. Cir. 2013), for example, the court rejected EPA’s attempt to use so-called SILs to “exempt[] sources from the [air modeling] requirements of the Act.”¹³ Specifically, the court rejected the claim that EPA (like LDEQ here) could declare that any contribution below a significance level cannot “cause or contribute” to a violation of the federal air standards. *Id.* at 464-65 (vacating, among other regulations, one that “state[d] that the demonstration required ... is deemed to have been made if a proposed source or modification's air quality impact is below the SIL.”).

In response to Petitioner’s initial comments, Magnolia Power LLC erroneously argued that LDEQ should ignore concerns about the use of SILs because the values chosen were pulled from EPA’s guidance on SILs from 2018.¹⁴ In its Basis of Decision, LDEQ further noted that, “SILs are specifically listed in 40 C.F.R 51.165(b)(2) as thresholds used to determine if a major source or major modification will be considered to cause or contribute to a violation of a national ambient air quality standard (NAAQS). . . .”¹⁵ Each of those arguments are misplaced.

First, EPA’s nonbinding policy SILs memorandum does not allow LDEQ to contradict the law’s plain meaning. Although EPA issued guidance purporting to allow agencies to continue to rely on the SILs in some circumstances, even after *Sierra Club*, that guidance simply offers suggested significance levels, and does not allow permitting agencies to categorically exempt sources from the Clean Air Act’s PSD requirements simply because the source’s emissions do not exceed the SILs. Indeed, in 2020, the United States Court of Appeals for the District of Columbia explained that the SILs Guidance still “requires any permitting decision relying on the

¹³ *Sierra Club v. EPA*, 705 F.3d 458, 466 (D.C. Circuit 2013).

¹⁴ LDEQ, Hearing Package – Magnolia Power LLC-Magnolia Power Generating Station Unit 1/ Hearing held 1/27/2022, February 7, 2022 at 37 (“Magnolia Comment Packet”).

¹⁵ Basis for Decision at 31.

Guidance be supported with a robust record, and does not prevent challenges to individual permitting decisions.”¹⁶ Moreover, “simply quoting” the SILs guidance “is *not sufficient* to support a permitting decision . . . without more evidence in the record, including technical and legal documents.”¹⁷

Here, LDEQ did not develop the kind of “robust record” required to justify its conclusion that Magnolia’s emissions would not contribute to any violation of the NAAQS or an increment. This is especially true because, as discussed in the attached Sahu Report, Magnolia’s primary and secondary particulate matter estimates—impacts of 0.861 and 0.041 ug/m³, just below the SILs—were both improperly developed using EPA’s Modeled Emission Rates for Precursors (“MERP”) approach, which likely substantially underestimated the total impacts of the facility. Specifically, Magnolia’s reference sources for NO_x and VOC emissions are *not* representative of the proposed Magnolia plant, including, importantly, their size and also stack heights and locations.¹⁸ Without using representative sources as the basis for scaling, Magnolia’s estimated PM_{2.5} impacts are fundamentally unreliable. Moreover, as detailed in the Sahu Report and below, the proposed verification and testing requirements for Magnolia’s PM, NO_x, and VOC emissions are unenforceable, and likewise unreliable. Since Magnolia’s own modeling shows that PM_{2.5} impacts are not substantially below the SIL, EPA must object to the permit and require rigorous verification (i.e., continuous monitoring and/or frequent stack testing) for PM_{2.5} emissions for all of the significant contributors (i.e., the turbine, the boiler, the emergency generator, etc.).

Second, LDEQ’s reliance on 40 C.F.R. 51.165(b)(2) is similarly misplaced. Section 51.165(b)(2) does not allow permitting agencies to provide a blanket exemption from the Clean

¹⁶ *Sierra Club v. Env’t Prot. Agency*, 955 F.3d 56, 63 (D.C. Cir. 2020).

¹⁷ *Id.*

¹⁸ *See* Sahu Report at 4.

Air Act's requirements whenever a source's impacts are below the SILs. Instead, it simply makes clear that PSD permitting agencies cannot issue a permit if the source emits pollution above the SILs. 40 C.F.R. § 51.165(b)(2); *Sierra Club*, 705 F.3d at 463, 465-66. That says nothing about LDEQ's application of the SILs here: To exempt Magnolia from comprehensive review and mitigation simply because the facility would add slightly less pollution than the significance level.

In short, LDEQ has erroneously concluded in its Basis for Decision that Magnolia Power LLC need not provide robust data to ensure that the emissions levels of its highly polluting plant, located in one of the most polluted areas of the southern United States, will not contribute to air pollution in excess of any maximum allowable increase or maximum allowable concentration for any pollutant. Instead, Magnolia Power LLC and LDEQ are choosing to rely on non-binding emissions limits. Magnolia Power LLC did not produce a "robust record" as required to justify their reliance on the SILs guidance and the modeling estimations they did submit, as will be further explained below, are flawed.

II. LDEQ'S IMPROPER RELIANCE ON UNVERIFIABLE EMISSIONS FACTORS LIKELY UNDERESTIMATES THE IMPACTS OF THE FACILITY.

LDEQ's erroneous use of SILs to exempt Magnolia from further review and mitigation is compounded by the agency's improper use of unverifiable emission factors, which likely underestimates emissions significantly. Specifically, Magnolia improperly relied on incorrect AP-42 emission factors that EPA has recognized are unrepresentative of emissions for numerous pollutants. EPA's AP-42 guidance makes clear that "[i]n most cases, these [AP-42] factors are simply *averages* of all available data of acceptable quality"¹⁹ Because these emission

¹⁹AP-42 Introduction at 1 (emphasis in original), available at <https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors>.

factors do not say anything about maximum pollution impacts, it is simply wrong to rely on them to estimate a source's *potential* to emit, which must be based on the maximum impacts of a proposed source. Moreover, neither the Applicant's emission calculations nor LDEQ's review mention or discuss the reliability (i.e., accuracy) of AP-42 emission factors. AP-42 uses a rating system to provide the user with a sense of how accurate a particular emission factor may be. As detailed in the Sahu Report, virtually every one of the AP-42 emission factors relied upon by Magnolia are rated as poor or very poor reliability. A recent EPA Enforcement Alert stressed that ". . . AP-42 emission factors should only be used as a last resort!"²⁰

As reflected in the table below, the PM_{2.5} results are not substantially below LDEQ's significant level.²¹ Indeed, Magnolia's modeling indicates that PM_{2.5} impacts from the proposed plant would be 71% of the SIL, leaving little room for error.²²

²⁰ Dr. Ranajit (Ron) Sahu, Comments on the Magnolia Power LLC's Magnolia Power Generating Station Unit 1 Proposed Initial Part 70 Air Operating Permit 1280-00292-v0 and Initial Prevention of Significant Deterioration (PSD) Permit, PSD-LA-839 at 31 (hereinafter "Sahu Report").

²¹ Briefing Sheet at 6.

²² Magnolia Air Dispersion Modeling at 18.

Pollutant	Averaging Period	Preliminary Screening Concentration ($\mu\text{g}/\text{m}^3$)	Secondary $\text{PM}_{2.5}$ ($\mu\text{g}/\text{m}^3$)	Total Screening Concentration ($\mu\text{g}/\text{m}^3$)	Level of Significant Impact ($\mu\text{g}/\text{m}^3$)	NAAQS ($\mu\text{g}/\text{m}^3$)
PM_{10}	24-hour	1.59	-	1.59	5	150
	Annual	0.13	-	0.13	1	--
$\text{PM}_{2.5}$	24-hour	0.82	0.041	0.861	1.2	35
	Annual	0.07	0.001	0.071	0.2	12
NO_2	1-hour	2.98	-	2.98	7.5	188
	Annual	0.12	-	0.12	1	100
CO	1-hour	335.44	-	335.44	2000	40,000
	8-hour	120.80	-	120.80	500	10,000

Moreover, as discussed in the attached Sahu Report, Magnolia's primary and secondary $\text{PM}_{2.5}$ estimates of 0.861 and 0.041 $\mu\text{g}/\text{m}^3$ were both improperly developed using EPA's Modeled Emission Rates for Precursors ("MERP") approach, and likely substantially underestimate the total PM impacts of the facility. Specifically, Magnolia's reference sources for NO_x and VOC emissions are *not* representative of the proposed Magnolia plant, including, importantly, their size and also stack heights and locations.²³ Without using representative sources as the basis for scaling, Magnolia's estimated $\text{PM}_{2.5}$ impacts are fundamentally unreliable. Moreover, as detailed in the Sahu Report and below, the proposed verification and testing requirements for Magnolia's PM, NO_x , and VOC emissions are unenforceable, and therefore inadequate. Since Magnolia's own modeling shows that $\text{PM}_{2.5}$ impacts are not substantially below the SIL, the permit should be amended to require rigorous verification (i.e.,

²³ See Sahu Report at 4.

continuous monitoring and/or frequent stack testing) for PM_{2.5} emissions for all of the significant contributors (i.e., the turbine, the boiler, the emergency generator, etc.).

LDEQ maintains that the impacts of PM_{2.5} are not substantially below the SILs because, “EPA characterizes *any* change in air quality below the PM_{2.5} SILs as ‘not meaningful’ and not contributing to a violation of the NAAQS, even where the difference between the background concentration and the NAAQS is less than the SIL value.”²⁴ But as stated in the previous section, there is a clear directive to EPA from Congress that the term “contribute,” “has no inherent connotation as to the magnitude or importance of the relevant ‘share’ in the effect; certainly it does not incorporate any ‘significance’ requirement.”²⁵ Therefore, it does not matter whether the change in air quality is ‘not meaningful’, it matters whether *any* contribution causes a violation of the NAAQS.²⁶ Again, the PSD provisions of the Act prohibit the issuance of a permit unless the applicant demonstrates that it “will not cause or contribute” to “any” exceedance of the applicable air quality standard.²⁷ In keeping with that statutory text, in 2013, the D.C. Circuit vacated EPA’s PM_{2.5} SILs regulation, recognizing EPA’s “lack of authority to exempt sources from the requirements of the Act.”²⁸ The court specifically rejected the part of the regulation that “simply states that the demonstration required under § 165(a)(3) is deemed to have been made if a proposed source or modification’s air quality impact is below the SIL.”²⁹ Despite the vacatur of

²⁴ Basis for Decision at 37.

²⁵ *Bluewater Network*, 370 F.3d at 13.

²⁶ *See Alabama Power Co.*, 636 F.2d at 362; H.R. Rep. No. 95-294, at 9; S. Rep. No. 95-127, at 11, 32 (1977); *see also* 42 U.S.C. § 7475(a)(3).

²⁷ 42 U.S.C. § 7475(a)(3)(A)-(B). It is clear—“no” means no, *see United States v. Clintwood Elkhorn Mining Co.*, 553 U.S. 1, 7 (2008).

²⁸ *Sierra Club v. EPA*, 705 F.3d 458, 465–66 (D.C. Cir. 2013).

²⁹ *Id.*

EPA's PM_{2.5} regulation, and EPA's failure to revisit the rule, LDEQ continues to rely on the unlawful SIL to avoid comprehensive analyses of air quality impacts in Louisiana.

III. THE BACT ANALYSIS IS SIMILARLY FLAWED.

As detailed in the attached Sahu Report, Magnolia's Application failed to conduct an appropriate Best Available Control Technology ("BACT") analysis for emissions of nitrogen oxides, carbon monoxide, and volatile organic compounds from the proposed turbine.

Specifically, the permit itself continues to rely on similar, recently-permitted sources with lower emissions limits, yet arbitrarily fails to provide any justification for why those lower limits should not apply to the proposed project. Magnolia's proposed BACT emission limit for NO_x indicates that the "combination of an SCR and dry low-NO_x, combustor design is the top control option, reducing NO_x, emissions to 2 ppm. As the *highest-ranked technology* shall be as BACT, additional technical or economic evaluation is not required."³⁰ While SCR is the highest ranked technology for NO_x control, neither the Application nor LDEQ explain why a lower emission limit is not achievable, especially in light of similar sources in the RBLC database that have achieved limits as low as 1.6 ppm, 1.4 pm. or 1 ppm NO_x. A proper BACT analysis would plot the cost of achieving these lower levels of NO_x using SCR and selecting that level which is cost-effective, rejecting even lower values that are not cost-effective.

Magnolia proposes a CO BACT emission limit for the new turbine of 2.0 ppmvd at 15% O₂, on a 24-hour rolling average.³¹ But again, the Application identifies several other RBLC sources with lower limits, but fails to offer any justification for why that lower limit is not

³⁰ Magnolia Power Generating Station, App'x D – Best Achievable Control Technology (BACT) Analysis at 12 May 29, 2020) (EDMS Doc. 12927054 at pdf page 527) (emphasis added).

³¹ *Id.* at 24.

achievable for the proposed project. Absent any technical or economic justification for why the more stringent limit of 1.5 ppmvd at 15% O₂ is not achievable, LDEQ cannot claim that that 2.0 ppmvd at 15% O₂ is BACT.

In its Response to Comments, LDEQ states that Sierra Club has not identified sources (similar sources in the RBLC data base that have achieved lower limits) or why the lower emission's might be relevant to Magnolia Power.³² LDEQ also notes that Magnolia Power's application also included 70 "similar" sources in more than a dozen states that had BACT determinations in the previous decade.³³ In response to the expert opinion of Dr. Ron Sahu that Magnolia power's BACT analysis did not follow USEPA's 5-step process,³⁴ LDEQ simply states that Magnolia Power identified all control technologies, eliminated any technically infeasible options, ranked remaining technically feasible control options by control effectiveness, evaluated the most effective controls, and selected the BACT.³⁵ But the BACT analysis is not simply a box-checking exercise. Instead, it is the Applicant's and LDEQ's burden (not Sierra Club's or the public's) to demonstrate that the selected BACT limitations are, in fact, the best available options. LDEQ's implication that Sierra Club should have done Magnolia's job for it, is without merit, and not a valid basis for rejecting expert analysis demonstrating that the proposed permit is not BACT.

IV. THE PROPOSED CONDITIONS OF THE PERMIT ARE NOT ENFORCEABLE, AND THEREFORE UNLAWFUL.

In its response to comments in the Basis for Decision, LDEQ states that the maximum duration for the proposed permit emission has been specified in pages 281-282

³² Basis for Decision at 40.

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.* at 42.

of the PSD, Title V and Acid Rain Permit Application. They further argue that the terms used are “not intended to impart specific monitoring requirements. . . but generally refer to the obligations of Magnolia Power to select equipment capable of meeting the emission limits of the permits . . .”.³⁶ They also argued that it is not necessary for all permit requirements to be “fashioned in quantitative terms with objective, measurable parameters or criteria.”³⁷

The Clean Air Act requires all Title V permits to include “enforceable emission limitations and standards . . . and such other conditions as are necessary to assure compliance with applicable requirements” of the Act.³⁸ Indeed, a fundamental purpose of the Title V permit is to set forth in one place not only all of the requirements applicable to a pollution source, but also provisions needed to assure compliance with each of those requirements. As the U.S. EPA explained in the preamble to the Title V regulations, “regulations are often written to cover broad source categories” leaving it “unclear which, and how, general regulations apply to a source.” U.S. EPA, *Operating Permit Program*, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992). Title V permits bridge this gap by “clarify[ing] and mak[ing] more readily enforceable a source's pollution control requirements,” including making clear how general regulatory provisions apply to specific sources. S. Rep. 101-228, 1990 USCAAN 3385, 3730 (Dec. 20, 1989). In short, Title V permits are supposed to link general regulatory provisions to a specific source to provide a way “to establish whether a source is in compliance.” *Id.*

³⁶ Basis for Decision at 43.

³⁷ *Id.*

³⁸ 42 U.S.C. § 7661c(a).

In addition to “enforceable emission limitations and standards . . . [e]ach permit issued under [Title V] *shall* set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions.”³⁹ The U.S. Court of Appeals for the D.C. Circuit has explained that these provisions establish not only that “a permitting authority may supplement an inadequate monitoring requirement so that the requirement will ‘assure compliance with the permit terms and conditions,’” but that “a monitoring requirement insufficient ‘to assure compliance’ with emission limits has no place in a permit unless and until it is supplemented by more rigorous standards.”⁴⁰

Finally, BACT is “an emissions limitation” 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.⁴¹ The Clean Air Act and EPA’s New Source Review Manual, upheld in numerous Environmental Appeals Board cases, requires that such emission limits must be met on a continuous basis at all levels of operation.⁴² Moreover, the New Source Review Manual states:⁴³

³⁹ 42 U.S.C. § 7661c(a),(c) (emphasis added); *cf.* 40 C.F.R. § 70.6(c)(1) (providing that all Title V permits “shall contain” “compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit”).

⁴⁰ *Sierra Club v. U.S. EPA*, 536 F.3d 673, 677, 680 (D.C. Cir. 2008).

⁴¹ 40 C.F.R. § 52.21(b)(12); *see also* 42 U.S.C. § 7479(3).

⁴² 42 U.S.C. § 7602(k).

⁴³ U.S. EPA, New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Area Permitting, Draft, October 1990 at B.56.

The emissions limits must be included in the proposed permit submitted for public comment, as well as the final permit. BACT emission limits or conditions must be met on a continual basis at all levels of operation (e.g., limits written in pounds/MMbtu or percent reduction achieved), demonstrate protection of short term ambient standards (limits written in pounds/hour) and be enforceable as a practical matter (contain appropriate averaging times, compliance verification procedures and recordkeeping requirements). Consequently, the permit must:

- ! be able to show compliance or noncompliance (i.e., through monitoring times of operation, fuel input, or other indices of operating conditions and practices); and
- ! specify a reasonable averaging time consistent with established reference methods, contain reference methods for determining compliance, and provide for adequate reporting and recordkeeping so that the permitting agency can determine the compliance status of the source.

As detailed in the attached Sahu Report, the Magnolia Permit fails to include the emission limitations, monitoring, or reporting provisions necessary to ensure compliance with the permit terms or to ensure that the permit is actually enforceable.

First, for startup, shutdown, or malfunction operations, the proposed permit refers to emission limitations like “normal operating mode” or “environmental compliance mode” to define compliance with the operational requirements of the turbine’s SCR—and the injection of ammonia, specifically.⁴⁴ Vague references to “normal” operations and “environmental compliance mode” are not enforceable, and therefore unlawful. LDEQ must revise the end of startup and beginning of shutdown using objective, practically enforceable criteria.

The below graph is taken from LDEQ’s answer in the basis for decision showing the vague descriptors.⁴⁵

⁴⁴ See, e.g., Briefing Sheet at 2.

⁴⁵ See Magnolia Comment Packet at 51.

Table 2-2: Startup and Shutdown Event Durations

Startup/Shutdown Summary	Startup				Shutdown	Total SU/SD
	Cold	Warm	Hot	Total	Total	
Events Per Year	10	40	200	250	250	500
Duration (Min/Event)	55	40	31		13.5	
Duration (Hours/Event)	0.92	0.67	0.52		0.23	
Annual Duration (Hours/Year)	9.17	26.67	103.33	139.17	56.25	195.42

Magnolia Power Administrative Record at 239-240; 653.

Second, the proposed permit's repeated references to "good combustion" practices, "proper operation," or "proper equipment design" are likewise unenforceable, unverifiable, and unlawful.⁴⁶ LDEQ must define this term for each pollutant if it intends that it should be part of BACT. And, it should do so, relying on objective, measurable parameters or criteria, so that it is enforceable in each case.

Third, the permit references compliance with the "manufacturer's instructions" as a specific condition for the operation of the main turbine and the auxiliary boiler.⁴⁷ It is impossible for the public or LDEQ to verify or monitor whether Magnolia is complying with those "instructions." Moreover, as noted in the Sahu Report and below, the vendor for the Magnolia turbines is not even identified in the record; nor is there any record of instructions Magnolia is required to follow. For a permit condition to be enforceable, the permit must leave no doubt as to what the facility must do to comply with the condition. Here, the permit record does not include any record of the "manufacturer's instructions," so it is impossible to determine which

⁴⁶ *Id.*; see also Proposed Permit, Specific Requirements at 5, 39.

⁴⁷ *Id.* at 39-40.

instructions to which the permit is referring. LDEQ must spell out which instructions are enforceable limitations.

V. EPA SHOULD OBJECT TO THE PERMIT BECAUSE IT FAILS TO ANALYZE THE ADVERSE AND NEGATIVE IMPACTS OF THE PROJECT ON THE SURROUNDING COMMUNITY AND ON COMMUNITIES OF COLOR.

Under Executive Order 12898 a state environmental regulatory agency that receives federal funds for its Title V program, such as LDEQ, must require an EJ review when making major environmental permitting decisions and identify whether a proposed permit will result in any “disproportionately high and adverse human health or environmental effects” on minority or low-income populations.⁴⁸

LDEQ acknowledges that the Air ToxScreen data suggests that cancer risks in the areas near where the facility will be located are higher than the state average, but still concluded that it’s under EPA’s acceptable risk threshold and that the plant itself will not cause or contribute to a violation of the NAAQS or ambient air standard (“AAS”). Again, LDEQ relies on threshold values without doing the work of considering how the plant will affect the lives of the people who will be forced to live around it. LDEQ further boasts that it meaningfully solicited and carefully considered the public’s concerns in its decision’s main processes⁴⁹, yet all of the public comments published in the agency’s own comment packet ask for the plan to be rejected citing concern for both local and global climate decline and the detrimental health effects that additional pollution would cause.

⁴⁸ *See also*, White House, Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, (January 20, 2021), available at <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/>.

⁴⁹ Basis for Decision at 26.

The 2019 estimates for Iberville Parish show a racial makeup of 48.8% Black or African American, with a per capita personal income of \$22, 397.⁵⁰ The racial composition for the state is approximately 32.8% black and 62.8% white.⁵¹ The data thus shows that the proposed site for the facility is located within an area that has a significantly higher African-American population than the parish as a whole or the state. Iberville Parish is also located along Louisiana's infamous Cancer Alley, so named because of its high concentration of facilities releasing toxic pollutants and the high incidence of cancer in the local population.

There are already significant documented impacts to public health and environment of the communities surrounding the multiple plants around the parish. Between 2014-2018, Iberville Parish's age-adjusted incidence of cancer was 538 per 100,000 at a 95% confidence rate⁵² while the US rates nationally was 442.4 per 100,000 persons.

The Environmental Assessment performed for the Magnolia plant acknowledges that the adverse impacts of the plant would disproportionately impact the majority communities of color surrounding the plant while providing less benefits for those same communities than other communities less impacted by adverse impacts of the proposed plant.⁵³ The company presented in its Application a chart based on national census data and concludes that there are multiple areas within the vicinity of the proposed facility "that warrant greater concern from an EJ perspective due to relatively high levels of socioeconomic vulnerability."⁵⁴ However, the

⁵⁰ U.S. Census Data for Iberville Parish, available at <https://www.census.gov/quickfacts/fact/table/ibervilleparishlouisiana/PST045219>; U.S. Census Data for Louisiana, available at <https://www.census.gov/quickfacts/LA>.

⁵¹ *Id.*

⁵² National Cancer Institute, State of Cancer – Incidents Rates Table, available at <https://statecancerprofiles.cancer.gov/incidencerates/index.php?>.

⁵³ Application, appendix F at 262.

⁵⁴ Application, appendix F at 263.

company declines to present the required mitigation or remedial measures with respect to the communities but instead says it will “consider these community characteristics in the development of future outreach and community investment initiatives...”.⁵⁵ Without an adequate analysis of adverse impacts or potential plans to mitigate these impacts, LDEQ should have rejected the permit.

The permit also fails to adequately discuss how it will mitigate adverse impacts on the neighboring community. The nearest residences to the facility site are located only half a mile from the proposed facility site.⁵⁶ Additionally, the proposed site is located within a 6 to 10-mile radius of at least 3 grade level schools, including Iberville Elementary School, Crescent Elementary School, and Plaquemine Senior High School, increasing risks to children who are a vulnerable population. According to Magnolia Power, there are little to no physical barriers between the plant and the nearby residential area, and the plant is likely to expose residents to light and noise pollution. But, Magnolia Power’s only solution is to conduct operational studies to “ensure that the appropriate measures...are implemented to mitigate noise exposure”.⁵⁷ The company has stated that the company is seeking advice from various organizations but has not provided surveys or disclosed potential impacts. The company’s awareness of these potential effects on the community and supposed efforts to reach out to whom they deem as appropriate sources, does not negate their duty to adequately discuss potential mitigation efforts for the proposed plant.

LDEQ cannot blindly accept the Company’s promise to conduct studies or its conclusory assertions that the impacts of the proposed plant on air, water, noise, and light

⁵⁵ Application, appendix F at 264.

⁵⁶ Application, appendix F at 246.

⁵⁷ *Id.*

pollution will be minimal. Instead, those studies must be made part of the record so that LDEQ and the public can review and comment on it. Without including those documents in the record, neither the public nor LDEQ can meaningfully evaluate the environmental impacts of the proposed plant, and it would be arbitrary and capricious to approve the permit without those documents.

CONCLUSION

For these reasons, Sierra Club respectfully requests that EPA revisit Magnolia's Title V permit and instruct LDEQ and Magnolia Power LLC to make changes to ensure more stringent adherence to the EPA's emission limitations rules.

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Sincerely,



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