REGION 6 ADMINISTRATOR
DALLAS, TX 75270

April 15, 2024

Elizabeth Livingston de Calderon
Senior Attorney
Fossil Fuels Program
Earthjustice
900 Camp Street, Suite 303
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Electronic Copy Provided: ecalderon@earthjustice.org

Dear Elizabeth,

I am writing to update you on EPA's ongoing efforts to evaluate and address the matters raised in the petition that you and Michael Brown submitted to EPA on May 30, 2023, on behalf of RISE St. James, Vessel Project of Louisiana, For a Better Bayou, Deep South Center for Environmental Justice, Healthy Gulf, Louisiana Bucket Brigade, and Sierra Club. The petition raises concerns with the application of Significant Impact Levels (SILs) in the Prevention of Significant Deterioration (PSD) permitting program by Louisiana and Texas, and it requests action by EPA under both the Civil Rights Act of 1964 (Title VI) and the Clean Air Act. On July 28, 2023, after careful consideration of the issues, EPA's Office of External Civil Rights Compliance rejected without prejudice the portion of the petition that reflected an administrative discrimination complaint regarding the Louisiana Department of Environmental Quality's compliance with Title VI due to overlap in issues regarding SILs in ongoing litigation over state permitting decisions.[1] EPA is continuing to evaluate the petition's remaining requests for EPA action under the Clean Air Act, and I am writing to update you on EPA's progress and anticipated next steps in its ongoing review.

We received a second letter from you regarding these matters on August 10, 2023. I heard additional concerns from you and your clients directly during a video conference on December 20, 2023, which was also attended by several staff in EPA Region 6 and headquarters. You and your clients also shared your concerns in a video conference on February 1, 2024, with the leader of EPA's New Source Review (NSR) permitting group, Rochelle King, and additional EPA headquarters staff. The agency has also received and reviewed the follow up letter you sent to Ms. King on February 26, 2024, which identifies additional actions that you recommend EPA take to address concerns regarding permitting decisions in Louisiana and Texas.

[1] See EPA Complaint No. 07RNO-23-R6.

In 2018, EPA issued guidance identifying SILs for fine particulate matter ($PM_{2.5}$) and Ozone, which describes how "subject to limitations described in this guidance, permitting authorities may use the values ... on a case-by-case basis to support air quality analyses and demonstrations required for issuance of PSD permits." EPA also described that it elected to identify these values in guidance, rather than regulation, to gain valuable experience and information from the experience of permitting authorities in applying the SILs recommended in the guidance in particular PSD permitting decisions.[2]

Your petition regarding permitting activities in Louisiana and Texas provides a wealth of information and has been helpful to EPA in its ongoing evaluation of the use of the $PM_{2.5}$ and ozone SIL values to support PSD permitting decisions. However, prior to considering the type of action you have requested with regard to the use of SILs for these and other pollutants in individual states, EPA feels it is best to gather additional information of a similar nature in other states to provide the agency with a more complete picture of how its SILs guidance is being used by states across the country. To facilitate a more systematic evaluation of how the ozone and $PM_{2.5}$ SILs are being applied than we have undertaken to date, and to consider the application of SILs for other pollutants not addressed in the 2018 guidance, the EPA's Office of Air Quality Planning and Standards (OAQPS) convened an internal workgroup in September 2023. EPA Region 6 has participants on that workgroup. As EPA conveyed during the February 1 video conference, we anticipate needing until the end of 2024 to complete this evaluation across states. Based on this workgroup's review, EPA will consider providing additional guidance to individual states or all states regarding the use of SILs for all pollutants.

Specific to the use of SILs in Louisiana air permitting, Region 6 staff have been working with LDEQ since February 2023 to address modeled violations of NAAQS that have been identified in permit applications for the construction of new or modified major sources of air pollution under the PSD program. This effort began prior to EPA receiving your petition in May 2023. EPA has periodically provided guidance to PSD permitting authorities on how to proceed when a permit applicant demonstrates that a modeled NAAQS violation is predicted in the affected area but its proposed construction will not cause or contribute to a violation of the NAAQS using SILs.[3] . While permitting authorities may proceed to issue a PSD permit based on such a demonstration, EPA has been clear that further state evaluation and review is needed to address any predicted NAAQS violation. In an email dated February 1, 2023, Region 6 staff conveyed to LDEQ our concerns with regard to modeled violations of the NAAQS identified in some PSD permit records. EPA requested three actions, including submittal of a plan of action to address modeled violations, and on August 15, 2023, LDEQ submitted its response and plan to evaluate and address modeled violations of NAAQS standards that are identified in applications submitted through its PSD permitting program. We are providing a copy of EPA's request and LDEQ's response as Enclosures to this letter. Through our Region 6 monthly air permitting oversight calls with LDEQ, we are monitoring the LDEQ's progress on addressing the modeled NAAQS violations identified in the August 2023 LDEQ plan. At the current time, LDEQ has not completed its ongoing evaluation of multiple permit actions and so has not yet provided its findings to EPA.

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[2] See pages 2, 19 of EPA's "Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program," from Office of Air Quality and Planning and Standards, Director, Peter Tsirigotis to Regional Air Division Directors (April 17, 2018) and supporting documents therein referenced.

[3] Id. at page 1 and supporting footnotes 4, 15.

EPA is continuing to evaluate whether it would be appropriate for the agency to take any of the additional steps requested in your May 30, 2023, petition and February 26, 2024, letter to EPA. We share your clients' concerns about cumulative pollution impacts from stationary sources of air pollution in communities in Louisiana and Texas. EPA staff in Region 6 and headquarters are carefully examining these issues and assessing how the Agency can best deploy its available resources and work with states, consistent with applicable law and court orders,[4] to reduce the pollution burdens in these communities. EPA is happy to schedule a follow-up meeting in coordination with the appropriate regional and Headquarters offices.

Sincerely,

Earthea Nance, PhD, PE
Regional Administrator

Enclosure

[4] Pursuant to a preliminary injunction issued by the U.S. District Court for the Western District of Louisiana on January 23, 2024, EPA will not impose or enforce any disparate-impact or cumulative-impact-analysis requirements under Title VI against the State of Louisiana or its state agencies.

Kaleri, Cynthia

From: Robinson, Jeffrey
Sent: Wednesday, February 1, 2023 4:43 PM
To: Kaleri, Cynthia; Wiley, Adina; Toups, Brad; Mohr, Ashley
Cc: Snyder, Erik
Subject: FW: Air Permit Modeling Evaluations for NSR Permitting

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From: Robinson, Jeffrey
Sent: Wednesday, February 1, 2023 4:43 PM
To: bryan.johnston@la.gov
Subject: Air Permit Modeling Evaluations for NSR Permitting

Bryan,

I wanted to email you about an ongoing concern that has been informally discussed over the years regarding air quality trends made apparent through permit modeling evaluations done as part of the SIP-approved Louisiana NSR permitting program. In addition, this same concern has been raised to EPA leadership in various meetings with the public in the last year in the context of LDEQ's NSR program implementation and to support claims of disparate impacts in communities having environmental justice considerations not being adequately addressed. As you are aware, LDEQ has had PSD permitting actions in the Mississippi River industrial corridor (ex St. James Parish, Iberville Parish) and in the Calcasieu Parish area where the air quality analysis identifies potential modeled violations of the applicable NAAQS. LDEQ has permitted these sources based on the permit applicant's demonstration that it will not cause or contribute to a modeled violation of the NAAQS since the contribution of the proposed source's emissions to the modeled violation(s) is less than the applicable Significant Impact Levels. In the monthly oversight calls our Air Permits staff has included discussion of LDEQ permitting actions and assessment of air dispersion modeling used to determine whether a NSR source or modification will potentially cause or contribute to a violation of the NAAQS.

As you are aware, the PSD regulations require that the permit issuer review new major stationary sources prior to construction to ensure that emissions from such facilities will not cause or contribute to an exceedance of either the NAAQS or any applicable PSD ambient air quality "increments." CAA § 165(a)(3), 42 U.S.C. § 7475(a)(3); 40 C.F.R. §§ 52.21(k)-(m). The performance of an ambient air quality and source impact analysis, pursuant to the regulatory requirements of 40 C.F.R. § 52.21(k), (l) and (m), as part of the PSD permit review process, is the central means for preconstruction determination of whether the source will cause or contribute to a violation of the NAAQS or PSD increments. Going forward and consistent with longstanding EPA policy and guidance, as described below, when the LDEQ has a PSD permitting action where the air quality analysis identifies potential modeled violations of the applicable NAAQS via air modeling, we are asking LDEQ to take the following steps to protect the NAAQS in a given area:

1. Demonstrate for each submitted model with NAAQS violations, that there is not an actual violation. If this demonstration is based on the prior modeling including overly conservative emission estimates for a source, the LDEQ should either reduce the applicable emissions limits for that source to be representative of the modeled parameters or explain why that is not necessary.
2. Develop a plan to alleviate modeled violations. This plan may include identifying the source(s) that significantly contribute to the modeled violations in the submitted permit modeling and revising emissions limits for such sources.

3. We encourage the LDEQ to consider whether additional ambient monitoring in the areas with modeled NAAQS exceedances would ensure that actual emissions and background concentrations are available to better inform future dispersion modeling.

Taking these steps will ensure that LDEQ is properly administering its PSD permit program and ensure consistency with longstanding EPA policy and guidance. Please realize that the EPA addressed this permitting scenario and the necessary remedies from the permitting authority in our July 5, 1988, Emison Memo. The Emison Memo speaks to this situation as follows:

> "a modeled violation of a NAAQS or PSD increment may be predicted within the impact area, but, upon further analysis, it is determined that the proposed source will not have a significant impact (i.e., will not be above de minimis levels) at the point and time of the modeled violation. When this occurs, the proposed source may be issued a permit (even when a new violation would result from its insignificant impact), but the State must also take the appropriate steps to substantiate the NAAQS or increment violation and begin to correct it through the State implementation plan (SIP). The EPA Regional Offices' role in this process should be to establish with the State agency a timetable for further analysis and/or corrective action leading to a SIP revision, where necessary. Additionally, the Regional Office should seriously consider a notice of SIP deficiency, especially if the State does not provide a schedule in a timely manner.

To further highlight the importance of taking these steps, in 2006 the Prairie State Environmental Appeals Board (EAB) decision (also citing the 1990 Draft NSR Workshop Manual) confirmed and further described the steps required to address modeled NAAQS violations by stating:

> "The NSR Manual states: "The source will not be considered to cause or contribute to the violation if its own impact is not significant at any violating receptor at the time of each predicted violation. In such a case, the permitting agency, upon verification of the demonstration, may approve the permit." NSR Manual at C.52. IEPA stated that it was following this guidance in applying the SILs to determine whether an impact is "significant." Response to Comments at 121. Petitioners argue that IEPA cannot rely on the NSR Manual's guidance because, in Petitioners' view, IEPA must first comply with the following additional guidance in the NSR Manual: "the agency must also take remedial action through applicable provisions of the state implementation plan to address the predicted violation(s)." Petition at 92 (quoting NSR Manual at C.52). Petitioners contend that IEPA has not satisfied this alleged condition under the NSR Manual's guidance. Id. We reject this contention finding no indication in the NSR Manual that completion of remedial action is a prerequisite for the Manual's statement that "the permitting agency, upon verification of the demonstration [that the proposed facility's contribution is not significant], may approve the permit." NSR Manual at C.52. Rather, the identification through modeling of a potential violation of the NAAQS requires the permitting authority to address the causes of the violation (i.e., the other sources that significantly contribute to the violation) as a matter independent of the permitting action in which the modeling was conducted, which is what IEPA has stated it will do in the present case." [Prairie State Opinion, Footnote 122] (Emphasis added)

The need for this remedial action is reaffirmed in our April 17, 2018 "Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program".

I wanted you to be aware that our Air Permits staff will continue to raise this topic as a discussion item in our monthly conference calls, so that LDEQ can be prepared to identify all proposed permit applications where the submitted dispersion modeling shows modeled violations of the NAAQS. In addition, we would expect that LDEQ could provide us a reasonable timeline in which they will identify and take the appropriate steps to address modeled NAAQS violations with new and/or existing sources. Finally, we also see our monthly calls as an opportunity for EPA and LDEQ to collaboratively discuss and address environmental justice concerns that have been, or could be, raised in areas surrounding a proposed source(s). Thank you in advance for your assistance and willingness to engage with our Air Permits staff on this concern. If you and your staff have any questions, please feel free to reach out to our Air Permits Section Chief Cynthia Kaleri at 214-665-6772 or myself at the number below.

Jeff Robinson
Branch Manager
EPA Region 6 – Air Permits, Air Monitoring & Grants Branch
214-665-6435

JOHN BEL EDWARDS
GOVERNOR

ROGER W. GINGLES
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

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Jeff Robinson
Branch Manager – Air Permits, Air Monitoring & Grants Branch
U.S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270

Re: Modeled NAAQS Exceedances

Dear Mr. Robinson:

Thank you for meeting with us recently to discuss the ongoing activities of LDEQ's New Source Review (NSR) and Title V air permitting programs. As you know, LDEQ takes our obligations to implement the NSR and Title V air permitting programs in accordance with all Clean Air Act requirements and to assure ongoing attainment and maintenance of the NAAQS across the state very seriously. In fact, LDEQ's actions have resulted in significant emissions reductions and corresponding improvements in air quality, as demonstrated by both long-term and short-term emissions and air quality data trends. We appreciate your collaborative efforts to assist us in the continuous improvement of air quality and the air permitting programs in Louisiana.

As you requested, this letter provides a summary of LDEQ actions being taken to address instances in which Air Quality Impacts Analysis (AQIA) modeling for PSD permitting actions predict exceedances of a NAAQS. Your recent inquiry relates specifically to those instances where, for a PSD permit application, the associated AQIA includes dispersion modeling results that predict potential exceedances of one or more NAAQS. As you note, EPA regulations and guidance provide that in such cases, if the analysis demonstrates that the proposed emissions increases would not have a significant impact at the point and time of each modeled exceedance, then the proposed emissions would not "cause or contribute" to an exceedance of the NAAQS, and the permit may be issued. In such cases, LDEQ recognizes that, in accordance with EPA guidance, it is incumbent upon the permitting authority to take appropriate action to assure the modeled exceedances are not indicative of an existing or anticipated future actual NAAQS exceedance and to take action to eliminate or prevent any such exceedance if necessary. LDEQ also recognizes, as you have noted, that the Environmental Appeals Board (EAB) has explicitly clarified that the permitting authority's action to address the cause of the modeled exceedance is "a matter independent of the permitting action in which the modeling was conducted."[1] As such, the permitting authority may proceed to act on the permit at hand and subsequently investigate the modeled NAAQS exceedances as a separate matter.

While EPA guidance and regulations do not prescribe the steps a permitting authority must take to assess or resolve modeled NAAQS exceedances, your email requests that LDEQ take certain specific actions and provide an anticipated timeline for and status of addressing instances of modeled exceedances in specified parishes.

[1] *In re Prairie State Generating Company*, PSD Appeal No. 05-05, August 24, 2006 (n. 122)

As an initial matter, LDEQ wishes to note that modeled exceedances of a NAAQS are not necessarily indicative of *actual* exceedances of a NAAQS. Indeed, certain factors common to virtually all PSD permit application reviews support the conclusion that modeled NAAQS exceedances for which the proposed emission sources/increases do not contribute above the Significant Impact Levels (SILs) are generally not indicative of current or future actual NAAQS exceedances. These factors are described below.

1. Existing ambient air monitoring data

The 2020-2022 design values for all ambient air monitors in the state are compliant with the NAAQS. In fact, as the subject permitting actions are PSD permits, the specific areas for which the AQIA is performed is, by definition, in attainment. In addition, data collected by LDEQ's Mobile Air Monitoring Laboratory (MAML) and by Temporarily Located Community (TLC) monitoring stations at various locations across the state have not identified any localized areas of concern with regard to the NAAQS.

2. Downward Trends in Actual Emissions

LDEQ's individual permitting decisions have *not*, over time, corresponded to increased actual emissions of criteria pollutants or toxic air pollutants (TAPs). As shown in the table below, according to data reported to LDEQ's Emissions Reporting and Inventory Center (ERIC), actual emissions continue to trend downward, even when evaluated over relatively short timeframes.

Pollutant	Emissions (tons per year)[2]		Percent Change
	2018	2022	
PM_{10}	29,934.84	21,994.77	– 26.5 %
$PM_{2.5}$	18,485.71	17,594.02	– 4.8 %
SO_2	129,708.79	91,839.18	– 29.2 %
NO_X	138,382.22	119,193.32	– 13.9 %
CO	97,486.18	87,534.05	– 10.2 %
VOC	56,991.88	49,790.03	– 12.6 %
TAPs	26,177.12	23,681.99	– 9.5 %

3. Highly conservative nature of modeling

To derive maximum ground level concentrations of pollutants that have standards with short-term averaging periods, LDEQ typically requires the permit applicant to model the maximum permitted hourly rate of all sources within the modeling domain, effectively assuming that every emissions source emits at its maximum allowable rate continuously.[3] Thus, the modeling results effectively

[2] See "Annual Certified Emissions Data 2016-present (Updated 3/22/2023)" at https://deq.louisiana.gov/page/eric-public-reports.

[3] Certain sources that operate intermittently, such as emergency engines, may be excluded from compliance demonstrations for the 1-hour NO_2 standard. See "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard" (https://www3.epa.gov/ttn/scram/guidance/clarification/Additional_Clarifications_AppendixW_Hourly-NO2-NAAQS_FINAL_03-01-2011.pdf).

assume worst-case emissions from numerous industrial facilities would coincide with worst-case meteorological conditions, a circumstance that is improbable at best and, given the number of sources modeled in a typical exercise, likely never to occur.

In addition, modeling guidance requires the modeling domain to include areas that do not meet the definition of "ambient air," where the NAAQS are not applicable. Specifically, the permit applicant must include in the NAAQS analysis the predicted concentrations within the fencelines of other industrial sites, including areas to which the general public has no access.

Moreover, background concentrations are added to the modeling results. However, actual measured ambient concentrations used to represent background are often inclusive of contributions from the existing emissions sources included in the model, thereby "double counting" to some extent the impact of those existing sources.

By way of example, although permit applicants have modeled exceedances of the 1-hour NO_2 standard in the southwestern Louisiana area, in 2022, the 98th percentile of 1-hour daily maximum NO_2 concentrations at LDEQ's Westlake monitor was 29 parts per billion (ppb), less than one-third of the NAAQS.

LDEQ Assessment of Modeled NAAQS Exceedances

As we have discussed, while LDEQ is generally confident that modeled NAAQS exceedances predicted in the context of PSD permitting are not likely to be indicators of actual exceedances of the NAAQS, the Department is conducting a case-by-case review of each instance. Again, we note that this assessment is independent of the PSD permitting decision and is not a reconsideration or reopening of any PSD or Title V permit.

As a first step, LDEQ conducted a 5-year statewide "look back" of issued PSD permits, from 2018 forward. This review identified fifteen (15) final PSD permit actions with AQIA NAAQS modeling that included one or more predicted exceedances of a NAAQS. The 15 permitting actions covered eleven (11) facilities in eight (8) parishes, including Caddo, Calcasieu, Cameron, Iberville, Plaquemines, St. James, St. John the Baptist, and Washington.

For three (3) of the identified cases, LDEQ has determined no further review is warranted at this time. These three actions involve cases for which the permit was issued more than five years ago, the permit has expired, and/or the project is on hold. Further, in each case, the facility or major modification has not been constructed. For these cases, LDEQ anticipates new updated modeling would be performed if the projects move forward under new or modified permits.

For the remaining cases, LDEQ has requested information from the permittees. The information requested includes a figure mapping the location of each modeled exceedance; a table listing each modeled exceedance, including the receptor location, time of exceedance, and modeled concentration; and a culpability analysis listing the primary contributors to the modeled exceedance, including modeling inputs and outputs for the contributing sources. It is anticipated that LDEQ will begin receiving information in response to our requests in September.

Once received, LDEQ will evaluate the data for each case to assess the reasons for the modeled exceedances. Where appropriate, model inputs, assumptions, or protocols will be refined to assess whether overly conservative assumptions have resulted in the modeled exceedances. For example, default stack parameters may be replaced with source-specific data. Or, the modeled emissions inventory, including emission rates and emission sources, may be updated based on the current

permit inventory. Additionally, LDEQ will assess whether the modeled exceedances occur in ambient air (i.e., "that portion of the atmosphere, external to buildings, to which the general public has access" (40 CFR §50.1(e)).

For any modeled exceedances that remain after this assessment, LDEQ will consider whether a reduction in allowable emissions for any contributing source may be appropriate. Such a reduction may involve a change in potential-to-emit input assumptions, such as operating rates, hours, emission factors, or operating scenarios. In some cases, a reduction in allowable emission rates may involve equipment upgrades or installation of controls. In addition, LDEQ may determine that localized ambient monitoring would be beneficial to "ground truth" model outputs (e.g., via MAML or TLC deployment).

Finally, LDEQ will take steps to assure that any updates to source inventories and information are incorporated into the ERIC system and in permits as appropriate such that future modeling efforts will be based on the most accurate and current information available. In addition, LDEQ will document the results of our review and conclusions.

Given the multiple ways in which a modeled exceedance may be resolved, it is not possible to provide EPA with a definitive date by which all of these actions will be completed. However, LDEQ is committed to addressing modeled exceedances and will keep EPA up to date on actions taken with respect to this matter on our monthly conference calls.

You have also inquired about any intended changes to the PSD permitting process moving forward. For PSD applications that are under review, if the AQIA predicts exceedances of the NAAQS, additional information will be requested to assist LDEQ in resolving the modeled exceedances. In some cases, the permit applicant may elect to refine the model to eliminate some overly conservative assumptions. Alternatively, the permit applicant may provide a more detailed culpability analysis to assist LDEQ in identifying the emission sources and scenarios that cause the modeled exceedances. Again, LDEQ affirms that any investigation or action to address the modeled exceedance is independent of the permitting action, that issuance of the PSD permit is not reliant upon resolution of the modeled exceedances, and that further LDEQ investigation to resolve the modeled exceedance may occur subsequent to permit issuance. Consistent with EPA guidance, LDEQ may decide to issue the PSD permit based on a demonstration that the proposed emissions do not cause or contribute to an exceedance of the NAAQS. Nonetheless, LDEQ believes that some further analysis and data collection concurrent with the AQIA review will be helpful to facilitate subsequent resolution of each modeled exceedance in a timely manner.

Should you have any questions concerning this response, please feel free to contact me at (225) 219-3450.

Sincerely,

Bryan D. Johnston

Bryan D. Johnston
Administrator
Air Permits Division

8/15/23
Date