

March 31, 2022

Dear Dr. Nance:

Congratulations on your appointment as Regional Administrator of Region 6. I write to you today to alert you to issues in Louisiana that need the forceful attention of Region 6. Some of the issues are in regard to specific facilities, others concern more overarching issues.

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This list includes four areas of concern. Among our chief concerns is ethylene oxide emissions in Louisiana, and so I begin this letter with detail on that subject. **The items underlined and in bold** delineate our specific action request of EPA.

#1 Need for reduction of ethylene oxide emissions and a halt to new permitted sources

We would welcome a conversation with you about ethylene oxide and our concern that the state of Louisiana is not heeding the latest scientific guidance.

Despite solid scientific evidence regarding the danger of ethylene oxide (EtO), the Louisiana Department of Environmental Quality (LDEQ) continues to permit facilities that emit significant quantities of EtO. One example is the air permit given to Formosa Plastics in St. James Parish. The air permit allows for 7.7 tons of ethylene oxide to be released into the air every year. Thankfully, that permit is now facing legal challenges. As recently as March 14, 2022, however, the LDEQ was in state court defending its permit.

Note that the 7.7 tons of EtO emissions per year is a conservative estimate, since Formosa estimates that its thermal oxidizers would combust 99.9% of the ethylene oxide in the gas waste streams. Yet there is not a requirement that Formosa install this kind of equipment, there is no manufacturer's guarantee that the equipment could achieve this combustion rate, and LDEQ is not going to monitor it. This is but one example of the utter lack of meaningful oversight regarding EtO.

A review of Louisiana's ongoing Ethylene Oxide emissions

The following information is derived from the EPA Toxic Release Inventory database and shows facilities with ethylene oxide emissions in Louisiana over the past five years. Louisiana is the second-largest emitter of ethylene oxide in the US, second to Texas.

The data show that there has been a decrease of nearly 13% in ethylene oxide emissions in Louisiana over the past five years. As shown in the last row of Table 1, total EtO emissions in 2016 were 45,506 pounds, while in 2020, total emissions were 39,647 pounds. However, this decrease

is largely driven by a significant change in reported emissions by BCP Ingredients Inc starting in 2017. Absent this change, there is only a 1% decrease in EtO emissions in Louisiana.

Table 1. EtO Emissions by Facility

Company	Parish	2020 Emission s (lbs)	2019 Emission s (lbs)	2018 Emission s (lbs)	2017 Emission s (lbs)	2016 Emission s (lbs)	5-year Total (lbs)	5-year Total (Tons)
Sasol Chemicals	Calcasieu	4,705	3,176	2,237	2,105	1,496	9,014	4.51
Westlake	Calcasieu	2	8	7	3	2	20	0.01
LACC Chemical /Lotte	Calcasieu	2,488	145	-	-	-	2,633	1.32
Ineos Oxide	Iberville	106	96	262	157	169	789	0.39
Dow Chemical	Iberville	3,057	3,494	3,008	3,623	3,705	16,887	8.44
Axiall	Iberville	2	2	2	2	2	10	0.01
SE Tylose	Iberville	17	18	17	17	19	89	0.04
BCP Ingredients	Iberville	37	198	48	54	3,173	3,510	1.75
Taminco US	Iberville	188	191	160	161	166	866	0.43
BASF	Ascension	13,530	13,300	15,100	15,200	15,100	72,230	36.12
Rubicon	Ascension	77	93	68	42	83	363	0.18
Shell Chemical	Ascension	5,904	7,457	10,415	9,424	4,369	37,569	18.78
Evonik	St. John	1,731	1,658	1,820	2,575	3,224	11,008	5.50
Union Carbide	St Charles	7,803	11,012	7,922	6,767	13,998	47,502	23.75
TOTAL LOUISIANA EtO EMISSIONS		39,647	40,848	41,066	40,130	45,506	202,490	101

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When reviewing EtO emissions by parish, the parishes of St. Charles, St. John, and Iberville decreased by approximately 50% over the five years reviewed. In the same time frame, Ascension Parish had no change in EtO emissions, while Calcasieu Parish EtO emissions increased by 380%. Calcasieu Parish had a new facility, LACC/Lotte Chemical, come on-line in 2019, which reported 145 pounds of EtO emissions. In 2020, LACC/Lotte Chemical reported 2,488 pounds of EtO emissions, a significant increase. Additionally, in Calcasieu Parish, Sasol Chemicals has consistently increased EtO emissions over the five years reviewed.

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Table 2. EtO Emissions by Parish

Parish	2020 Emissions (lbs)	2019 Emissions (lbs)	2018 Emissions (lbs)	2017 Emissions (lbs)	2016 Emissions (lbs)	5-year Total (lbs)	5-year Total (Tons)
Calcasieu (3)	7,195	3,329	2,244	2,108	1,498	16,374	8.19
Iberville (6)	3,407	3,999	3,497	4,014	7,233	22,151	11.08
Ascension (3)	19,511	20,850	25,583	24,666	19,552	110,162	55.08
St. John (1)	1,731	1,658	1,820	2,575	3,224	11,008	5.50
St Charles (1)	7,803	11,012	7,922	6,767	13,998	47,502	23.75

We are alarmed by these amounts of ETO in our state, especially the new sources, and would like to work with the EPA to eliminate such emissions.

#2 Assure the LDEQ implements recommendations of the Louisiana Legislative Auditor

In January of 2021, the Louisiana Legislative Auditor released an audit (Attachment #1) entitled *Monitoring and Enforcement of Air Quality* (there was [this news article](#) about the audit). The audit painted a woeful picture of industry's emissions reporting, LDEQ's tracking of emissions reporting, and subsequent LDEQ incompetence regarding issuing of violations and enforcement. The report made recommendations for improvement on pages 10 – 20 of the audit.

We ask for your help in assuring that LDEQ implement the Legislative Auditor's recommendations. We understand that the audit was a document developed by the Louisiana Legislative Auditor and not by EPA. The Auditor, however, did find significant problems on issues that the EPA delegates to the LDEQ. Since the audit identified systemic problems within the LDEQ, we feel that implementing the recommendations is an opportunity for tangible improvement at the agency.

#3 Carbon Capture: Louisiana Primacy

Many of our partner organizations have corresponded with you regarding Louisiana's application for primacy on carbon capture and storage. We echo their concerns and urge the agency not to grant it. We refer you to the letters already submitted to the region.

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#4 Facilities of Concern

Operating

Shell Norco (St. Charles Parish): This refinery has had problems with upsets for the 22 years I have been aware of it. **We request that the EPA inspect the facility and require a real – not cursory - root cause analysis of its accidents.**

There are two complexes that used to be connected via pipelines. That may still be the case. One facility is the Shell Refinery (formerly Motiva), the other is an associated chemical complex that has changed hands frequently over the years. It is now operated by WR Grace. In the past, the refinery sent chemicals to be flared at the chemical plant via underground pipes. When trying to end the flaring problems, it may be necessary to look at both complexes.

This is some information regarding the frequent flares.

1. This article from DeSmog Blog about the flaring during Hurricane Ida. Note that the flare was visible as people evacuated New Orleans via I 10. While refineries understandably have challenges in preparing for storms, the intensity and frequency of the flaring before, during and after Hurricane Ida demonstrates the facility's long-term failure to prepare for the inevitable storms in this region.
2. This Twitter feed chronicles the facility's ongoing flares over time. The most recent photos and videos document flaring and smoke during Hurricane Ida, but if you scroll back you will see consistent reports over the years of ongoing flares.
3. This database is a compilation of Shell Norco's upset reports over a ten-year span, from 2005 – 2015.

Please note that this refinery does stand out as being worse than other refineries. The flare is used often, making it appear as if the refinery has frequent upsets and that this is just its normal operating procedure. The Clean Air Act requires that facilities conduct a root cause analysis of upsets. The consistent flaring and smoke from the Shell refinery makes it seem doubtful that this has been done.

One final note: the Shell refinery was called the Motiva refinery until 2017. When it was called Motiva, Shell was still involved since Motiva was a joint venture between Saudi Aramco and Shell.

Shell is thus responsible for the recent poor operations as well as those that span the past several decades. Its sole ownership began in 2017.

Nucor Steel (St. James Parish): Request to reject any permits to expand or any renewal permits, given the terrible operational problems at the facility.

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The attached letter (Attachment #2) from the Tulane Environmental Law Clinic lays out some of the problems with Nucor Steel's operations and with LDEQ's approach to Nucor. Note that the Tulane Environmental Law Clinic sent this letter to the LDEQ on behalf of the Louisiana Bucket Brigade and our partner group, Inclusive Louisiana, on July 20, 2021. We sent the letter to object to the LDEQ settlement with Nucor. We did not receive a reply from LDEQ until November 17, 2021, and that response only came after we complained to EPA headquarters that we'd been ignored by the state (LDEQ replied a week later). The LDEQ reply was a cursory dismissal of our concerns.

Thankfully, EPA at the federal level is now involved. We have had three phone conferences with regional and headquarters EPA staff and there was a notice of violation issued in January of 2022. However, this is unlikely to have any real meaning if the region does not prioritize it. This facility has spewed hydrogen sulfide and sulfuric acid mist. They do not have control of the facility and should certainly not increase production. We attached our letter to LDEQ so that a/ you could get a sense of the problems at the facility and b/ you can see how the LDEQ failed to take our legitimate concerns seriously, thus requiring the vigilance of EPA.

Denka: We have followed the announcement of renewed EPA air monitoring at the Denka site, and we know the Concerned Citizens of St. John have been a powerful voice at Region 6. However, the organization has been undermined by Region 6 in the past. We mention Denka here because it is of such concern and warrants intensive attention from by regional staff with a track record of solving problems.

Permitted / under construction

Formosa: Michael Regan recently expressed a willingness to support the Army Corps of Engineers environmental impact statement regarding Formosa. We will engage with you on what is possible from the EPA in this regard. In the meantime, we alert you to the fact that a challenge to the LDEQ's woefully flawed air permit is currently before a state judge. She has asked for documents from both parties by May 13, 2022. **We request that Region 6 use its authority to revoke the air permit issued to Formosa Plastics.** I understand that the matter is being litigated, but if and when EPA has an opening to act, we request that you do so.

Liquified Natural Gas Terminals: As you know, there are a dozen liquified gas export terminals planned for the coast of Louisiana, and each will require an air permit. **We ask that the agency**

work with the LDEQ to review these permits, especially in the light of cumulative impacts and environmental justice concerns. The facilities planned in Plaquemines Parish would destroy historic Black communities. On the other side of the state, in Cameron and Calcasieu Parishes, the already existing pollution burden requires careful consideration of additional permits. There are numerous examples – most recently, Formosa Plastics in St. James Parish – of the LDEQ simply ignoring or manipulating data to override environmental justice and cumulative impacts concerns. This is a dereliction of duty and requires the agency's urgent attention.

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We are grateful for your time and look forward to working with you to improve the situation here in Louisiana. If I can be of any help to you or your staff, please reach out via my contact information detailed beneath my signature.

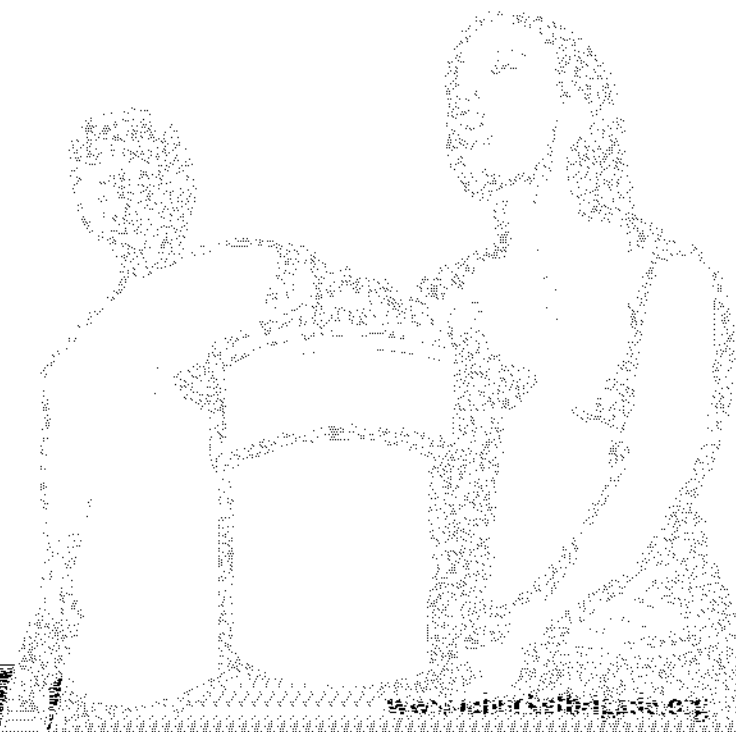
Sincerely,



Anne Rolfes, Director
anne@labucketbrigade.org
(504) 452 - 4909

Attachments

- #1 Louisiana Legislative Auditor Report
- #2 Letter to LDEQ Objecting to Settlement



MONITORING AND ENFORCEMENT OF AIR QUALITY

DEPARTMENT OF ENVIRONMENTAL QUALITY



PERFORMANCE AUDIT SERVICES
ISSUED JANUARY 20, 2021

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**FOR QUESTIONS RELATED TO THIS PERFORMANCE AUDIT, CONTACT:
GINA V. BROWN, PERFORMANCE AUDIT MANAGER,
AT 225-339-3800**

Under the provisions of state law, this report is a public document. A copy of this report has been submitted to the Governor, to the Attorney General, and to other public officials as required by state law. A copy of this report is available for public inspection at the Baton Rouge office of the Louisiana Legislative Auditor and online at www.la.la.gov.

This document is produced by the Louisiana Legislative Auditor, State of Louisiana, Post Office Box 94397, Baton Rouge, Louisiana 70804-9397 in accordance with Louisiana Revised Statute 24:513. Five copies of this public document were produced at an approximate cost of \$6.25. This material was produced in accordance with the standards for state agencies established pursuant to R.S. 43:31. This report is available on the Legislative Auditor's website at www.la.la.gov. When contacting the office, you may refer to Agency ID No. 9726 or Report ID No. 40200007 for additional information.

In compliance with the Americans With Disabilities Act, if you need special assistance relative to this document, or any documents of the Legislative Auditor, please contact Elizabeth Coxe, Chief Administrative Officer, at 225-339-3800.



LOUISIANA LEGISLATIVE AUDITOR
DARYL G. PURPERA, CPA, CTE

January 20, 2021

The Honorable Patrick Page Cortez,
President of the Senate
The Honorable Clay Schexnayder,
Speaker of the House of Representatives

Dear Senator Cortez and Representative Schexnayder:

This report provides the results of our audit of the Department of Environmental Quality (DEQ). The purpose of this audit was to evaluate DEQ's monitoring and enforcement of air quality regulations.

Overall, we found DEQ could strengthen its monitoring and enforcement processes by identifying violations and issuing enforcement actions in a timelier manner.

Our analysis of U.S. Environmental Protection Agency (EPA) data found the number of good air quality days in Louisiana has increased by 20.9 percent between 2008 and 2018, while the number of unhealthy days for sensitive groups has decreased 75.1 percent. However, Louisiana has the highest toxic air emissions per square mile of any state, according to the EPA's Toxics Release Inventory, and the EPA's most recent (2014) National Air Toxics Assessment showed parts of Louisiana have high potential cancer risks and/or a high respiratory hazard index.

We found DEQ should strengthen its monitoring process to identify those permitted facilities that fail to submit their required self-monitoring reports and hold them accountable. In addition, DEQ should review these reports in a timely manner so it can identify and address facilities with self-reported violations. Automating and standardizing the submission of these self-monitoring reports could help DEQ improve its monitoring process.

In addition, we found DEQ does not issue enforcement actions in a timely manner to permitted facilities that violate air permit requirements. From fiscal years 2015 through 2019, the time it took DEQ to issue enforcement actions increased by 102.1 percent. Best practices state that effective enforcement includes swift and predictable responses to violations.

DEQ also does not effectively track the penalties it has assessed and whether facilities have paid their penalties. DEQ could improve its settlement process for penalties by developing

The Honorable Patrick Page Cortez,
President of the Senate
The Honorable Clay Schexnayder,
Speaker of the House of Representatives
January 20, 2021
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deadlines for when facilities must submit their settlement offers and by processing these offers more quickly. We found that, for 46 enforcement actions finalized through settlements between fiscal years 2015 and 2019, it took an average of 4.4 months for DEQ to receive a settlement offer after issuing the enforcement action and an additional 2.1 years on average, to finalize an agreement.

We found as well that DEQ faces challenges related to low staffing levels, high workloads, frequent turnover of staff, and ineffective data systems that make it more difficult to perform its regulatory work. For example, DEQ's positions dedicated to air quality regulation decreased 14.6%, from 247 in fiscal year 2010 to 211 in 2019.

The report contains our findings, conclusions, and recommendations. I hope this report will benefit you in your legislative decision-making process.

We would like to express our appreciation to the Department of Environmental Quality for its assistance during this audit.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Daryl G. Purpera", written in a cursive style.

Daryl G. Purpera, CPA, CFE
Legislative Auditor

DGP/ch

DEQ 2021

Louisiana Legislative Auditor

Daryl G. Purpera, CPA, CFE

Monitoring and Enforcement of Air Quality Department of Environmental Quality

January 2021



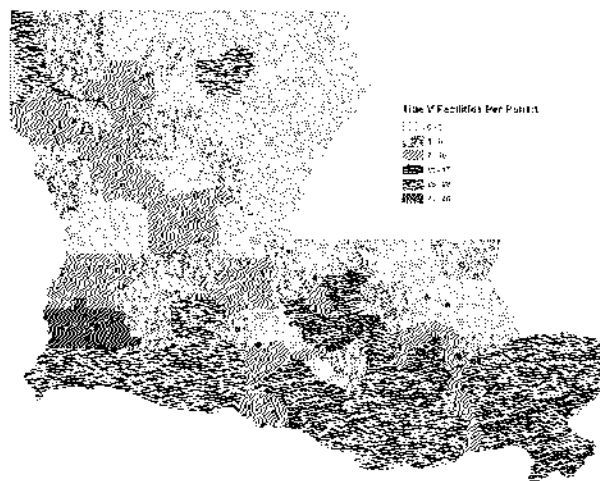
Audit Control # 40200007

Introduction

We evaluated the Louisiana Department of Environmental Quality's (DEQ) monitoring and enforcement of air quality regulations. It is important to achieve and maintain clean air to protect public health and the natural environment. We conducted this audit because Louisiana has a high concentration of industrial facilities requiring air permits, as shown in Exhibit 1. In addition, the Environmental Integrity Project compared budgets and staffing for environmental agencies across states and found that between fiscal years 2008 and 2018, Louisiana's DEQ ranked 4th among states in staffing cuts and 3rd in budget cuts¹ which may affect its ability to effectively perform its regulatory activities.

DEQ's mission is to provide service to the people of Louisiana through comprehensive environmental protection in order to promote and protect health, safety and welfare while considering sound policies that are consistent with statutory mandates.

Exhibit 1 Ambient Air Monitors and Major Permitted Facilities Fiscal Year 2019



According to state law², DEQ is the primary agency in the state concerned with environmental protection and regulation. State regulations³ establish DEQ's Air Quality Program to maintain the purity of air resources in Louisiana consistent with the protection of the health and physical property of the people, maximum employment, and the full industrial development of the state.

DEQ regulates and monitors air quality by issuing air permits, conducting surveillance activities, such as inspections of permitted facilities, and issuing enforcement actions when permit holders violate permit conditions. DEQ issues various types of air permits depending on the amount of

Source: Prepared by legislative auditor's staff using EPA's GreenBook data and data provided by DEQ.

¹ Environmental Integrity Project. *During a Time of Cutbacks at EPA, 30 States Also Slashed Funding for State Environmental Agencies*. December 5, 2019. <https://environmentalintegrity.org/news/state-funding-for-environmental-programs-slashed/>

² Louisiana Revised Statute (LA R.S.) 30:2011

³ Louisiana Administrative Code (LAC) 33:III:101

pollutants a facility may emit. For example, most large industrial facilities are required to have major (Title V) permits, while smaller facilities, such as concrete plants and crematoriums, are required to have minor permits. From fiscal years 2015 through 2019, there were approximately 750 active major permits and 6,000 to 8,000 active minor permits each year.

DEQ monitors air quality through several activities, including collecting and analyzing ambient air data, inspecting permitted facilities, and reviewing self-monitoring reports submitted by facilities. DEQ and the Environmental Protection Agency (EPA) place ambient air monitors across the state to collect and analyze air samples for certain pollutants, as shown in Exhibit 1. To comply with EPA requirements, DEQ inspects 50% of major air permit holders per year and will conduct inspections of minor air permits in response to environmental incidents, such as unauthorized emission releases or spills, and citizen complaints. DEQ also receives and reviews various self-monitoring reports that facilities are required to submit throughout the year, such as permit deviations and emissions reports. When DEQ identifies permit violations, it may issue enforcement actions that require corrective action and/or monetary penalties. Penalties are often resolved through settlement agreements negotiated with facilities and may include beneficial environmental projects.

The objective of this audit was:

To evaluate DEQ's monitoring and enforcement of air quality regulations.

Our results are summarized on the next page and discussed in detail throughout the remainder of the report. Appendix A contains DEQ management's responses to our recommendations, and Appendix B contains our scope and methodology. In addition,

- Appendix C contains descriptions of the six criteria pollutants (i.e., the most common pollutants) designated by the EPA, how each are formed, and the associated health effects.
- Appendix D contains the number and description of air permits issued in fiscal years 2015 through 2019.
- Appendix E contains the numbers of active air permits by parish for fiscal years 2015 through 2019.
- Appendix F includes the top 25 pollutants in Louisiana for calendar year 2018.
- Appendix G contains the total self-reported air emissions in tons by parish.
- Appendix H is a map showing Louisiana's potential cancer risk per million, and Appendix I is a map showing Louisiana's respiratory hazard index.
- Appendix J contains the number of and description of enforcement actions issued in fiscal years 2015 and 2019.

Objective: To evaluate DEQ's monitoring and enforcement of air quality regulations.

Overall, we found that DEQ could strengthen its monitoring and enforcement processes by identifying violations and issuing enforcement actions more timely. Specifically, we found:

- **Louisiana has seen improvement in air quality since calendar year 2008. However, certain areas of the state are highly industrialized and have high concentrations of air pollution. As a result, it is important for DEQ to have robust monitoring and enforcement processes to protect human and environmental health.** According to our analysis of EPA data, the number of good air quality days in Louisiana has increased by 20.9%, from 191.9 days in calendar year 2008 to 232 days per year in calendar year 2018, while the number of unhealthy days for sensitive groups has decreased 75.1%, from 14.3 days to 3.6 days. However, according to the EPA's Toxics Release Inventory, Louisiana has the highest toxic air emissions per square mile than any other state. In addition, according to the EPA's most recent (2014) National Air Toxics Assessment (NATA), parts of Louisiana have high potential cancer risks and/or a high respiratory hazard index.
- **While DEQ conducted inspections on permitted facilities as required by the EPA, it should strengthen its monitoring process by identifying and holding accountable those facilities that fail to submit required self-monitoring reports. In addition, DEQ should review these reports in a timely manner so it can identify and address those facilities with self-reported violations.** Automating and standardizing the submission of these self-monitoring reports could help DEQ improve its regulation of air quality in Louisiana and decrease the resources needed to review these reports manually.
- **DEQ does not issue enforcement actions in a timely manner to permitted facilities that violate air permit requirements. From fiscal years 2015 through 2019, the time it took DEQ to issue enforcement actions increased by 102.1%, from an average of 289 days to an average of 585 days.** As a result, there is a risk that facilities may have violations that remain uncorrected for years. Best practices state that effective enforcement includes swift and predictable responses to violations. In addition, developing additional reports could assist DEQ in better monitoring the enforcement program overall and help it hold permitted facilities accountable.
- **DEQ does not effectively track the penalties it has assessed and whether facilities have paid their penalties. In addition, DEQ could improve its settlement process by developing deadlines for when facilities must submit settlement offers and by processing these offers more quickly.** DEQ gives facilities the option to submit an initial settlement offer after it issues a notice of potential penalty, which often involves negotiating with facilities regarding the

amount facilities must pay to resolve violations. Of the 46 enforcement actions that were finalized through settlements during fiscal years 2015 through 2019, it took an average of 4.4 months for DEQ to receive a settlement offer after issuing the enforcement action and then an additional 2.1 years on average, to finalize the settlement agreement.

- **DEQ faces challenges in performing its required regulatory duties, including low staffing levels, high workloads, frequent turnover of staff, and ineffective data systems.** Despite Louisiana's large number of Title V facilities, DEQ's positions dedicated to air regulation decreased 14.6%, from 247 in fiscal year 2010 to 211 in 2019. These challenges may impact DEQ's ability to effectively hold facilities accountable for air violations.

Our findings and our recommendations are discussed in more detail in the sections below.

Louisiana has seen improvement in air quality since calendar year 2008. However, certain areas of the state are highly industrialized and have high concentrations of air pollution. As a result, it is important for DEQ to have robust monitoring and enforcement processes to protect human and environmental health.

Nationwide, air quality has improved significantly since the passage of the Clean Air Act of 1970. According to the EPA, cleaner technology and more stringent air regulations contribute to the improvements in air quality.⁴ Air pollution in Louisiana comes from a variety of sources, and the potential health risks depend on the type of air pollutant, the concentration of pollutant in the air, and frequency and duration of exposure. Although industrial facilities contribute to air pollution, other sources such as sandblasters, crematoriums, and pollution from driving cars and trucks also impact air quality. According to data from the U.S. Bureau of Labor Statistics,⁵ Louisiana has the highest percentage of its jobs in chemical manufacturing and petroleum and coal manufacturing of any state. Louisiana is a desirable state for industry due to it being a major source of raw materials; its access to large amounts of water needed for production; its proximity to the Mississippi River, a major transportation artery; and its tax incentives.⁶ However, a byproduct of major industry is air pollution. Louisiana has seen improvement in some aspects of air quality since 2008; however, in highly industrialized areas of the state, higher levels of

⁴ <https://www.epa.gov/clean-air-act-overview/progress-cleaning-air-and-improving-peoples-health> & <https://www.epa.gov/clean-air-act-overview/clean-air-act-solving-air-pollution-problems-science-and-technology>

⁵ Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2019, https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=0&year=2019&qtr=A&own=5&ind=325&sup p=0 & https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=0&year=2019&qtr=A&own=5&ind=324&sup p=0

⁶ "The Economic Impact of the Chemical Industry on the Louisiana Economy: An Update," Loren C. Scott & Associates, Inc. April 2018

pollution may be present. There are various ways to measure air quality, which are explained in detail below.

According to EPA's Air Quality Index (AQI) data, Louisiana's overall air quality has improved from calendar year 2008 through 2018. The EPA's AQI defines how clean or polluted the air is and what associated health effects may be a concern. EPA calculates AQI through data collected from monitoring stations for the criteria pollutants,⁷ and the higher the AQI value, the greater the level of air pollution and health concern. As shown in the text box, an AQI from 0 to 50 is considered "good," whereas an AQI of 301 to 500 is considered "hazardous." According to our analysis of EPA data, the number of good air quality days in Louisiana has increased by 20.9%, from 191.9 days in calendar year 2008 to 232 days per year in calendar year 2018, while the number of unhealthy days for sensitive groups has decreased 75.1%, from 14.3 days to 3.6 days.

EPA's Air Quality Index Ranges	
0-50	= Good
51-100	= Moderate
101-150	= Unhealthy for Sensitive Groups
151-200	= Unhealthy
201-300	= Very Unhealthy
301-500	= Hazardous

Louisiana has more parishes in attainment status than previous years. The EPA designates areas that do not meet National Ambient Air Quality Standards (NAAQS)⁸ as non-attainment areas, and states must develop plans to reduce air pollution for those areas in order to comply with NAAQS. Currently, Louisiana has two non-attainment areas for sulfur dioxide, one in St. Bernard Parish and one in Evangeline Parish.⁹ This is an improvement from calendar year 2016 when Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge were also in non-attainment for ozone. According to DEQ, it is working with facilities in St. Bernard and Evangeline Parish to gain attainment status within the next couple of years.

According to DEQ's Emissions Reporting and Inventory Center (ERIC),¹⁰ overall self-reported emissions from permitted facilities have decreased 27.5%, from 689,188 tons in calendar year 2008 to 499,399 tons in calendar year 2018. Emissions of the six criteria pollutants [Carbon Monoxide (CO), Lead, Nitrogen Dioxide (NO₂), Ozone (O₃), Particulate Matter (PM_{2.5} and PM₁₀), and Sulfur Dioxide (SO₂)] have decreased 29% during this same period, from 663,752 tons per year in calendar year 2008 to 471,204. See Appendix C for how each criteria pollutant is formed and the associated health effects. Emissions from toxic air pollutants¹¹ increased by 10.8%, from 25,436 tons in calendar year 2008 to 28,195 tons in

⁷ Criteria pollutants are regulated under Title I of the Clean Air Act, which sets a national health standard for each pollutant. The burden is on the state to set up monitoring networks, monitor the air continuously for each pollutant, and report the data to EPA. States must also submit emission summaries and control plans for each pollutant, which demonstrate to EPA that state controls and regulations will both achieve and maintain the standard.

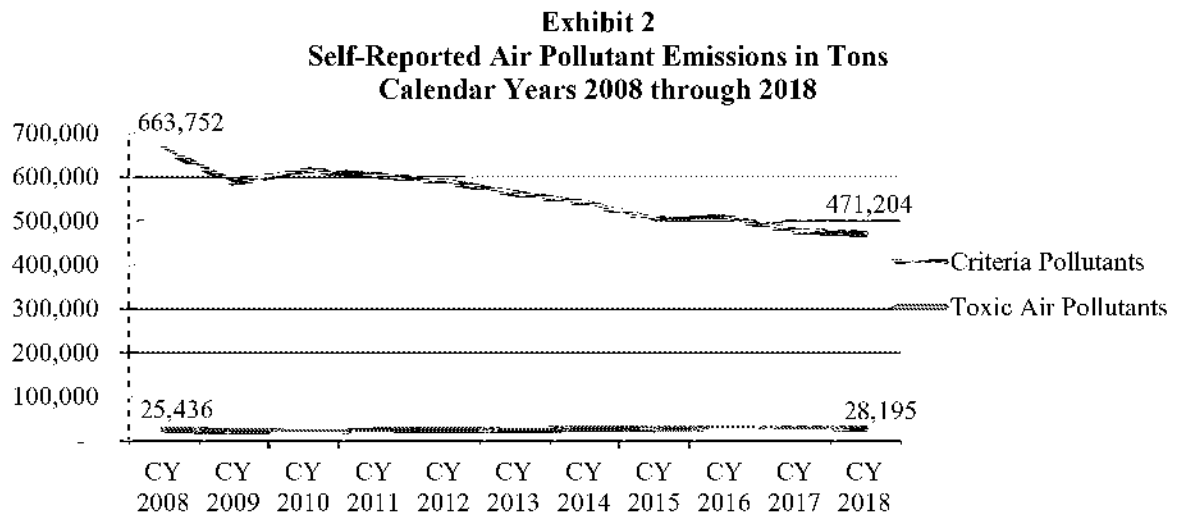
⁸ NAAQS designations are for criteria pollutants only.

⁹ Based on analysis of EPA's Green Book Data <https://www.epa.gov/green-book/green-book-data-download>

¹⁰ ERIC contains self-reported data that is estimated and then aggregated into the inventory. All major sources, some minor sources, and some facilities in non-attainment areas must report their emissions to ERIC by April 30th of each year.

¹¹ Toxic Air Pollutants (TAPs) are regulated under Title III of the Clean Air Act. TAP regulations focus on the air emissions from targeted industries, and the control technology used to limit those emissions. In general, the burden is on industries to report emissions of TAPs, and to demonstrate to the state agency that the control technology in place meets standards. In Louisiana, industries must also comply with the state regulation for toxic air pollutants.

calendar year 2018. Exhibit 2 shows the total tons in criteria and toxic air pollutants from calendar years 2008 through 2018.



Source: Prepared by legislative auditor's staff using self-reported facility data provided by DEQ.

While emissions have decreased, some areas have higher concentrations of emissions and permitted facilities than other areas in Louisiana. For example, Calcasieu Parish and East Baton Rouge Parish made up more than 20% of the state's total emissions. Exhibit 3 shows the top 10 parishes with the highest emissions during calendar year 2018 and the number of major and minor permits in those parishes. See Appendix G for the emissions for all parishes for calendar years 2015 through 2018.

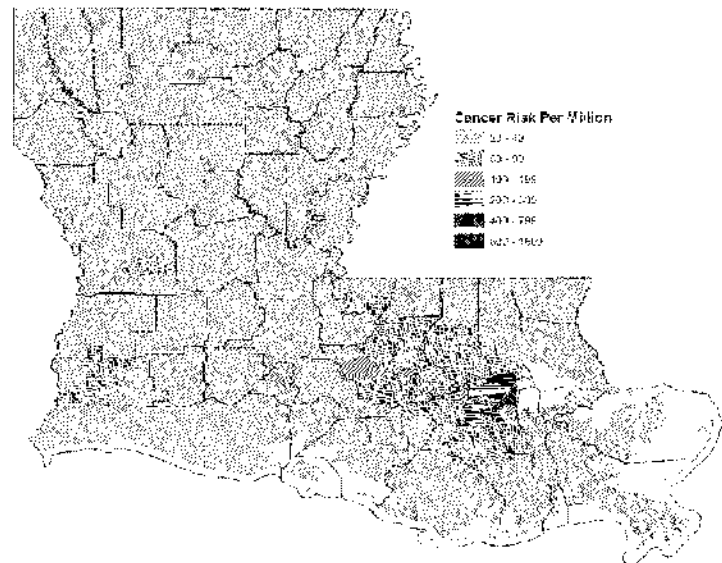
Parish	Total Emissions*	Percent of State Total Emissions	Major Permits	Minor Permits
Calcasieu	70,970	14.2%	89	198
East Baton Rouge	42,678	8.5%	56	85
St. Mary	37,006	7.4%	21	105
St. Charles	34,733	7.0%	54	49
Pointe Coupee	26,040	5.2%	5	63
Ascension	25,302	5.1%	67	50
DeSoto	22,644	4.5%	9	822
Rapides	18,402	3.7%	9	56
Iberville	17,308	3.5%	55	81
Evangeline	16,701	3.3%	6	121
Top 10 Parishes Total	311,784	62.4%	371	1,630
All Other Parishes Total	187,614	37.6%	353	5,008
State Total	499,398	100.0%	724	6,638

*Emissions do not include emissions from all permits as not all permitted facilities are required to submit emission reports.

Source: Prepared by legislative auditor's staff using self-reported emissions data from DEQ.

According to the EPA's 2014 National Air Toxics Assessment (NATA),¹² parts of Louisiana have high potential cancer risks and/or a high respiratory hazard index. The EPA developed NATA as a tool to help states identify which pollutants, emission sources, and places they may wish to study further to better understand the potential risks to public health from air toxics.¹³ NATA estimates health risks from a single year's emissions data by assuming a person breathes these emissions over a period of 70 years (e.g., a lifetime). According to this tool, St. John the Baptist Parish has the highest estimated potential cancer risk nationwide. Exhibit 4 shows the potential cancer risk for Louisiana by census tract. In addition, Louisiana has the second highest respiratory hazard index out of all the states. This indicates potential non-cancer risk for the respiratory system. See Appendices H and I for maps of cancer risk and respiratory hazard index information for Louisiana.

Exhibit 4
Potential Cancer Risk Per Million
By US Census Tract
2014 EPA National Air Toxics Assessment Data



According to the EPA's 2018 Toxics Release Inventory (TRI),¹⁴ Louisiana has the highest toxic air releases per square mile than any other state. TRI calculates that Louisiana has 1,238.7 pounds of toxic air releases per square mile.

Ohio, the second highest state, by comparison, has 898.9 pounds per square mile. TRI tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. It is important to note that the TRI does not reveal whether the public is exposed to toxic chemicals; however, in conjunction with other information it can be used as a starting point to evaluate the potential risks of exposure to these releases.

¹² This is the most recent assessment. NATA can be used to learn where to expand the toxics monitoring networks, help target reduction activities, and better understand risk from air toxics; however, it should not be used to pinpoint specific risk values in small areas such as census tract, characterize or compare risks between states, or examine trends from one NATA year to another.

¹³ The EPA compiles the information in NATA using the National Emissions Inventory, which is released every three years based upon self-reported data provided by air agencies. The EPA then estimates the ambient concentrations of air toxics across the United States and estimates the population exposures to determine the potential public health risks.

¹⁴ TRI annually tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. TRI is a mandatory program managed by the EPA but does not include all chemicals or all permitted facilities.

While DEQ conducted inspections on permitted facilities as required by the EPA, it should strengthen its monitoring process by identifying and holding accountable those facilities that fail to submit required self-monitoring reports. In addition, DEQ should review these reports in a timely manner so it can identify and address those facilities with self-reported violations.

DEQ's Surveillance Division Compliance Monitoring Strategy requires that it inspect 50% of the approximately 500 facilities with Title V permits annually, which translates to an inspection every other year. Each year, DEQ management determines which facilities to inspect based on factors such as facility compliance history, potential environmental impact, and the location of the facility. Inspectors then conduct an on-site inspection, checking for compliance with all active permits. After the on-site visit and reviewing any additional information requested, the inspector drafts an inspection report that must receive a technical and supervisory review. The inspection report includes any potential violations identified, called "areas of concern," which are forwarded to the Enforcement Division for further action.

While DEQ conducted the required number of inspections during fiscal years 2015 through 2019, it could make inspections less predictable and require photographs or other evidence that inspections actually occurred. State law¹⁵ stresses the importance of unannounced inspections. We found that of 1,146 inspections, 251 (21.9%) were conducted in the same month as the previous inspection. For example, one facility was inspected on December 8, 2014, December 6, 2016, and December 12, 2018. DEQ may want to vary or randomize the months that it conducts compliance inspections each year so companies are not able to prepare for the inspection. According to DEQ, its interpretation of EPA's requirements was that facilities had to be inspected during the same quarter, but in 2017 clarified with the EPA that inspections must be conducted by the end of the second fiscal year, not within the same quarter.

In addition, to strengthen its inspection process, DEQ should require additional evidence that inspections occurred, such as photographs. In January 2019, DEQ notified the EPA's Inspector General and the Louisiana Legislative Auditor that a former employee had falsified at least three compliance inspections. DEQ staff identified that the inspections were falsified after the inspector had separated from the agency. According to DEQ, this was an isolated incident where an inspector and supervisor did not follow defined procedures. The department addressed the situation by meeting with managers and supervisors and reviewing standard operating procedures. DEQ concluded that its standard operating procedures were appropriate, and DEQ procedures uncovered the falsified inspections. However, to strengthen the inspection process, DEQ management should require additional evidence as part of inspection reports, as inspectors are not currently required to submit photographs or other types of secondary evidence to demonstrate that inspections did, in fact, occur.

¹⁵ LA R.S. 30:2002(3)

DEQ does not identify whether a company fails to submit required self-monitoring reports or if a facility self-reported violations until its routine inspection or file review, which could take years. According to federal law,¹⁶ facilities are required to submit semi-annual self-monitoring reports once every six months to DEQ that lists all of the emission permit deviations. Facilities are also required to submit an annual compliance certification that shows how the facility addressed these deviations and the actual compliance status from any emission deviations. According to state law,¹⁷ DEQ should use these monitoring reports as part of its strategy to evaluate a facility's compliance with its permit conditions. According to DEQ management, when it receives reports, enforcement staff perform a cursory review to identify any potential high priority violations.¹⁸ However, staff does not address any other violations at the time of this cursory review, such as submitting the report late or emissions that exceed permit limits. Instead, DEQ staff will review these reports in depth, including whether a facility failed to submit a required report, at the next compliance inspection or other file review, which could be years later. As a result, there is often a delay between when DEQ issues a violation or potential penalty to a facility for not submitting required self-monitoring reports and when those reports were due.

Of the 50 enforcement cases we reviewed,¹⁹ eight (16%) included 18 instances where the facility did not submit or did not timely submit the required self-monitoring report. Of the eight enforcement actions that included issues with the submitting of self-monitoring reports, it took DEQ an average of 522 days, or almost 1.5 years, to identify if the facility was deficient in submitting the required reports. For one semiannual report, DEQ did not identify that the facility failed to submit it for 2,255 days, or approximately six years. It is important that DEQ identify and regulate facilities using these reports because air quality regulation relies heavily on self-monitoring and these reports provide DEQ with important information between routine inspections.

In addition, based on the data reliability testing we performed, some of the information DEQ collects regarding self-monitoring reports, such as postmark date and review date, is incomplete. As a result, DEQ cannot accurately query the database to determine whether facilities submitted required reports.²⁰ Facilities mail required reports to DEQ and staff manually scans the reports and inputs the reports' postmark dates into its database, Advantage RM.²¹ Manually entering the information into the database increases the risk that information may be incomplete. According to DEQ management, it has queried the database as a starting point to identify facilities that may not have submitted self-monitoring reports and is further investigating whether these facilities submitted reports as required.

¹⁶ 40 CFR 70.6(c)(5)

¹⁷ LA R.S. 30:2012(D)(1)

¹⁸ High Priority Violations (HPVs) are a subset of Clean Air Act regulations violations that warrant additional scrutiny to ensure that enforcement agencies respond to such violations in an appropriate manner and receive federal assistance. The EPA monitors HPVs; therefore, we did not include them in our scope.

¹⁹ We selected 50 enforcement actions, which incorporated a range of how long it took DEQ to issue the enforcement action.

²⁰ For example, according to Advantage RM data, 872 (10.5%) of 8,318 reports were not submitted. However, we concluded that this data field was incomplete as some of these reports were actually submitted.

²¹ Advantage RM is DEQ's data system. It was formerly known as TEMPO.

Of the nine other states we surveyed,²² eight have or are moving to electronic report submission capabilities. According to DEQ management, it is exploring the possibility of an option to submit reports electronically so that deviations can be automatically flagged by DEQ. Electronic submissions may help DEQ quickly identify facilities that have not submitted required self-monitoring reports and reduce human error, increasing the reliability of the database. In addition, receiving reports electronically would reduce the workload of enforcement staff because they would not have to process paper reports. If DEQ receives reports electronically, it could also begin to automate enforcement actions for late report submissions where the system could flag permit holders who did not submit required reports or even automatically draft an enforcement action.

Recommendation 1: DEQ should vary when it inspects facilities so that they are less predictable as state law stresses the importance of unannounced inspections.

Summary of Management's Response: DEQ agrees with this recommendation and states that during the later years of the audit timeframe (2017), approval was obtained from the United States Environmental Protection Agency-Region 6 to implement an Alternate Compliance Monitoring Strategy for scheduling and performing inspections of permitted facilities which has increased the variability of inspection dates. See Appendix A for management's full response.

Recommendation 2: DEQ should require secondary evidence, such as photographs, to ensure that inspections actually occurred.

Summary of Management's Response: DEQ disagrees with this recommendation and states that in the isolated case in the audit report, a Field Interview Form was not completed, signed, or left at the facilities as the inspector did not visit the facilities as required by DEQ's existing Standard Operation Procedures (SOP). DEQ also notes that this isolated incident was voluntarily reported to the LLA prior to the audit. See Appendix A for management's full response.

Recommendation 3: DEQ should review required self-monitoring reports timely to monitor and regulate air quality in Louisiana.

Summary of Management's Response: DEQ agrees with this recommendation and states that current staffing levels and the volume of reports received impedes the Enforcement Division staff from performing a thorough review upon receipt of every report and from immediately initiating a formal enforcement for every violation reported in either of the aforementioned reports. In addition, the Enforcement Division has been working to improve the quality of its historical data for the Semiannual Monitoring and Deviation reports and Annual Compliance Certifications, and as this data is improved, it will utilize this information to quickly pursue permittees/respondents who failed to submit the required Title V Reports. Queries of this data will be run at least twice per

²² Arkansas, Arizona, Colorado, Maryland, New Jersey, New Mexico, New York, Texas, Washington. Texas is the only state that receives paper-based reports only.

year to determine if any permittees failed to submit its reports. See Appendix A for management's full response.

Recommendation 4: DEQ should continue to pursue electronic report submissions like other states.

Summary of Management's Response: DEQ agrees with this recommendation and states that it began researching and developing plans for electronic submission of Title V and other Air quality reports prior to this audit. An initial request for a developmental quote was submitted to a contractor in November 2020 to help better determine the cost of providing an electronic reporting submission option. In addition, the development and implementation of any the electronic submission option will be dependent upon securing sufficient funding and adequate allocation of Office of Technology (OTS) resources. DEQ is actively researching potential grants and other alternate sources of funding for this project. See Appendix A for management's full response.

DEQ does not issue enforcement actions in a timely manner to permitted facilities that violate air permit requirements. From fiscal years 2015 through 2019, the time it took DEQ to issue enforcement actions increased by 102.1%, from an average of 289 days to an average of 585 days. As a result, there is a risk that facilities may have violations that remain uncorrected for years.

According to the International Network for Environmental Compliance and Enforcement, enforcement is the backbone of environmental compliance, and for enforcement programs to be effective at deterrence there must be swift and predictable responses to violations.²³ DEQ does not have a timeline requirement in policy specifying how long it should take to issue enforcement actions, except for issuing an enforcement action within 90 days from the receipt of a referral that originated from a citizen complaint. According to DEQ, it has an informal goal of issuing an enforcement action within 180 days; however, according to our analysis, 463 (69.6%) of 665 enforcement actions issued during fiscal years 2015 through 2019 took more than 180 days. According to state law,²⁴ DEQ has five years from the date a violation is first reported to DEQ to commence an assessment or enforcement of any civil penalty or fine. After five years, DEQ loses the right to take action regarding the violation.

DEQ's Enforcement Division receives referrals of areas of concern identified from multiple sources, such as during inspections and from a review of emissions inventory reports. Once the Enforcement Division receives a referral, management assigns it to an environmental

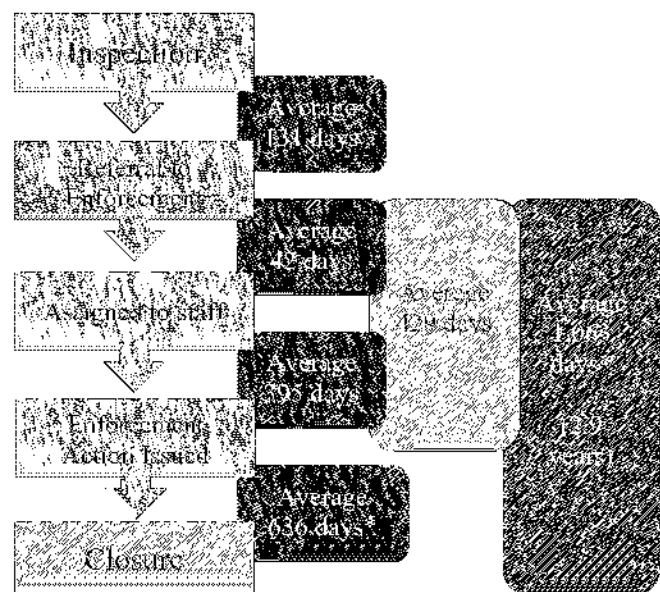
²³ "Principles of Environmental Compliance and Enforcement Handbook," International Network for Environmental Compliance and Enforcement, April 2009.

²⁴ LA R.S. 30:2025(H)

scientist. If enforcement staff determines that a violation(s) occurred, they may then issue one of several enforcement actions depending on the severity of the violations, such as a compliance order, notice of potential penalty, or a penalty assessment. DEQ's legal division reviews each enforcement action prior to issuance. Enforcement actions may also include corrective action requirements for the facility. From fiscal years 2015 through 2019, 284 (34.1%) of 833 enforcement actions²⁵ were expedited penalty agreements and 243 (29.2%) were compliance orders/notice of potential penalties. See Appendix J for descriptions of enforcement actions and how many were issued in fiscal years 2015 and 2019. Once DEQ issues an enforcement action, facilities have several avenues to closure, such as settlement negotiations, appealing the violations, or paying the assessed penalty.

From fiscal years 2015 through 2019, the overall time it took DEQ to issue enforcement actions increased by 102.1%, from 289 days on average to 585 days. In addition, of the 69 enforcement actions issued in this time period from a citizen complaint, 42 (60.9%) were not issued within DEQ's goal of 90 days. According to the nine states we surveyed,²⁶ seven (77.8%) typically issue enforcement actions within six months of discovering a violation or receiving an enforcement referral. Exhibit 5 shows steps in the enforcement process and the average number of days between each step. From fiscal years 2015 through 2019, DEQ has shown improvement in the timeliness of all of the steps, except for the time it took to issue enforcement actions:

Exhibit 5
Enforcement Process Timeliness
Fiscal Years 2015 through 2019



- **Inspection to Referral –**
Decreased 35.5%, from 161 days to 104 days
- **Referral to Staff Assignment –**
Decreased 73.4%, from 50 days to 13 days
- **Staff Assignment to Issuing Enforcement Action – Increased 126.5%, from 249 days to 563 days**
- **Issuing Enforcement Action to Closure – Decreased 58.2%, from 852 days to 356 days**

*Includes 262 (39.3%) of 666 cases that were still open as of 7/31/2020.

Source: Prepared by legislative auditor's staff using DEQ's Advantage RM data.

²⁵ These figures only include air and multimedia (including air) enforcement actions. It does not include asbestos enforcement actions.

²⁶ Arizona, Arkansas, Colorado, Maryland, New Jersey, New Mexico, New York, Texas, Washington

In addition, DEQ also monitors air quality through citizen complaints. Of the 69 enforcement actions issued from fiscal years 2015 through 2019 from a citizen complaint, 42 (60.9%) were not issued within DEQ's goal of 90 days, which also contributed to the amount of time it took DEQ to issue enforcement actions. DEQ has a single point of contact hotline that citizens can call to make a complaint. After receiving a complaint, DEQ forwards the complaint to the Surveillance Division, who responds by initiating a compliance inspection, traveling to the location in the complaint, or contacting responsible parties by phone. The most common types of complaints are odor, open burning, and dust/particulates/sandblasting.

We also found that DEQ does not always address violations until years after the violation occurred, which further delays enforcement.

We reviewed a targeted selection of 50 enforcement action files to determine what violations were included in the enforcement action and found that it took DEQ an average of 2.2 years to identify a violation after it occurred. Then, it took an additional 1.6 years on average to issue enforcement actions based on those violations. Of the 211 violations contained in these 50 files, 48 (22.7%) violations had occurred more than five years prior to DEQ issuing the enforcement action, and 33 (15.6%) were self-reported by the facility. These violations included emissions that exceeded permit limits, unauthorized operations, and noncompliance with monitoring requirements. In addition, taking so long to identify a violation increases the risk that DEQ will not have enough time to issue an enforcement action within the five-year deadline in law.²⁷

One enforcement action issued on December 6, 2018, included an inspection from June 11, 2013, and four file reviews. The oldest violation included in this enforcement action was from February 26, 2010, and some of the violations were self-reported by the facility. In this example, it took 3.3 years for DEQ to discover the oldest violation and then, overall, 8.8 years from the date of violation to the issuance of the enforcement action.

While air enforcement cases are often technically complex and may include many violations, developing time frame goals could help DEQ better manage cases. According to DEQ management, it has been working to clear a backlog of enforcement cases. In addition, according to management, enforcement staff workloads are high, air regulation is a highly technical and complex area, and many staff are new, less experienced employees, which also makes it more difficult to issue enforcement actions timely. While some cases may take longer to process thoroughly, DEQ should work towards addressing violations in a timely manner to effectively deter noncompliance and to hold facilities accountable with their permits.

Developing additional reports could assist DEQ in better monitoring the enforcement program overall and to help it hold permitted facilities accountable.

Developing more comprehensive reports and other tools could help management ensure that all enforcement cases are addressed and could help reduce staff workloads. While enforcement management can run some reports on enforcement information, available reports are limited. For example, DEQ management can run reports to show the last action for enforcement cases and whether cases have been closed. However, DEQ has not developed reports to gauge timeliness of enforcement actions or to link enforcement cases to settlements and other activities. In addition, the department cannot accurately link all inspections to enforcement actions to determine whether all inspections with potential violations resulted in an enforcement action. Enforcement staff cannot run reports to assist in managing their workloads, and they manually track their own

²⁷ LA R.S. 30:2025(H)

enforcement cases, such as when to follow up on enforcement actions. According to DEQ, it is developing a proof of concept for a dashboard that would allow staff to run more comprehensive reports for enforcement activity data.

Recommendation 5: DEQ should develop formal time frame goals for how long it should take to issue enforcement actions and monitor its performance based on the time frame goals.

Summary of Management's Response: DEQ agrees with this recommendation and states that the Enforcement Division-Air Enforcement Section has made a substantial effort to address backlog referrals in recent years. This process resulted in actions issued in the later years of the audit period, including fiscal year 2019, with an increase in time from referral assignment to action issued date. While addressing of backlog referrals is continuing, processes are in place to improve this timeline. Notably, the time from referral assignment to action issuance decreased by 38.9% from fiscal year 2019 to fiscal year 2020 (average 344 days). See Appendix A for management's full response.

Recommendation 6: DEQ should develop additional reporting capabilities for enforcement staff and management to use to better monitor the enforcement process.

Summary of Management's Response: DEQ agrees with this recommendation and states that it has been developing software which will allow management and staff to develop and run more sophisticated reports to improve efficiency in tracking activities. This software will also have the capability to run automated reports which can be used as reminders or triggers for staff. DEQ will continue pursuing development and implementation of this useful tool. See Appendix A for management's full response.

DEQ does not effectively track the penalties it has assessed and whether facilities have paid their penalties. In addition, DEQ could improve its settlement process by developing deadlines for when facilities must submit settlement offers and by processing these offers more quickly.

DEQ addresses violations using various enforcement actions including issuing penalties or negotiating the penalty through a settlement agreement. State law²⁸ requires DEQ to notify a facility of a potential penalty at least 10 days prior to assessing a penalty. These notices of potential penalty include descriptions of the violations but *do not* define a penalty amount. After receiving a notice of potential penalty, facilities may submit a settlement offer and enter into settlement negotiations. In addition, for certain types of violations, such as failing to submit

Expedited Penalties:

As outlined in LA R.S. 30:2025, DEQ may issue expedited penalties. This is meant to expedite penalty assessments for minor or moderate violations, which are defined in La. Admin Code tit. 33, Part 705.

²⁸ LA R.S. 30:2050.3 C

required reports, DEQ may provide a voluntary option of paying an expedited penalty. If facilities fail to respond to notices of potential penalties with a settlement offer or do not pay an expedited penalty, DEQ may assess a formal penalty.

DEQ has a penalty matrix and a list of nine factors to consider when developing a penalty amount. Once DEQ assesses a penalty, a facility may request an adjudicatory hearing within 30 days to appeal the violations. At any point in the penalty process, the facility may enter into settlement negotiations, as allowed for in state law.²⁹ Settlements may also include beneficial environmental projects, which are projects that provide for environmental mitigation. During fiscal years 2015 through 2019, DEQ assessed \$8,465,533 for 171 settlement agreements and beneficial environmental projects.³⁰ Exhibit 6 shows the number and amount of penalty actions DEQ has issued or finalized during the audit scope.

Exhibit 6 Number and Amount of Penalty Actions Fiscal Years 2015 through 2019							
Action	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Grand Total	Total Assessed
Expedited penalty	51	37	67	78	51	284	\$292,350**
Finalized settlement	57	39	25	25	25	171	8,465,533*
Penalty assessment	10	9	2	2	4	27	1,249,971**
Demand letter for failure to pay a penalty	1	0	1	0	0	2	150,098
Total	119	85	95	105	80	484	\$10,157,952
*Includes \$3,861,036 in beneficial environmental projects.							
**According to unaudited information provided by DEQ, Penalty figures only include air and multimedia (containing air) enforcement actions. It does not include asbestos or lead enforcement actions.							
Source: Prepared by legislative auditor's staff using data from DEQ.							

While DEQ knows how much in settlements it has assessed and collected, DEQ does not effectively track the penalties it has assessed and whether facilities have paid the assessed amounts. DEQ management does not currently have reports that can easily identify how much it has assessed in penalties and what penalties are outstanding or have been paid. DEQ has a monthly list that includes penalties it assessed; however, this list does not roll over from month to month. As a result, DEQ cannot effectively track which facilities currently owe payments. We requested penalty and payment information on March 24, 2020, and DEQ was eventually able to provide information on December 3, 2020, but it had to manually create a spreadsheet and we found that this spreadsheet was missing some penalties.

In January 2017, DEQ issued a \$1,500 expedited penalty for three instances of failing to submit the annual criteria pollutant emissions inventory report. Expedited penalties are voluntary and if facilities want to participate and pay the penalty, they have 30 days to respond with payment. However, DEQ did not send a failure to respond letter until April 2018 and as of October 2020, the facility still has not paid.

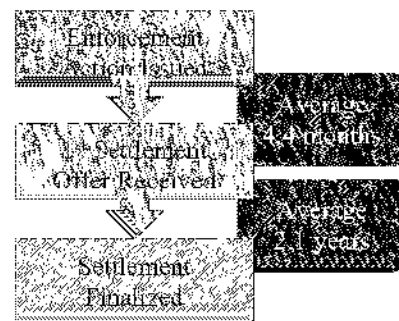
²⁹ LA R.S. 30:2050.7 A

³⁰ This can include putting money into an escrow account for the purchase of a Mobile Air Monitoring Lab (MAML) for DEQ, fund the maintenance of an air monitoring station, perform upgrades to existing ambient air monitoring networks, etc.

According to DEQ, the data contained in the Advantage RM database is not always accurate due to inconsistencies in the information enforcement staff have been required to input at various times. In addition, Advantage RM does not integrate with the data system used by DEQ's Financial Services Division. As a result, DEQ cannot easily connect payments to enforcement actions to ensure that they have been paid. In addition, the Financial Services Division has a manual process to link payments to enforcement actions once payments have cleared; however, this process is not always timely. We found that during fiscal years 2017 through 2020,³¹ it took DEQ more than two weeks to process 549 (45.9%) of 1,197 checks. In addition, once DEQ received the payment, it took the Financial Services Division an average of 41.5 days to communicate to the Enforcement Division that a company had paid its enforcement action penalty. Not tracking penalty assessments and payments in a timely manner increases the risk that unpaid penalties may go unnoticed.

In addition, DEQ gives facilities the option to submit an initial settlement offer after issuing a notice of potential penalty. Unlike other states,³² Louisiana is unique in that the facility initiates the settlement instead of DEQ specifying a penalty amount. DEQ attaches a settlement request form with enforcement actions and may meet with the facilities regarding the settlement. According to DEQ, it uses this process to obtain additional information such as mitigating circumstances, monetary benefits of noncompliance, and the duration of violations, which helps in calculating the penalty amount. Facilities must have completed all required corrective action for DEQ to finalize a settlement agreement. However, DEQ should consider developing deadlines for receiving settlement offers so that enforcement cases do not remain open for long periods of time. Of the 46 enforcement actions that were issued and then finalized through settlements during fiscal years 2015 through 2019, it took an average of 4.4 months for DEQ to receive a settlement offer after issuing the enforcement action. However, 11 (23.9%) of the 46 enforcement actions took more than six months before DEQ received an initial settlement offer. Furthermore, it took at least an additional two years (24.7 months) for DEQ to finalize the settlements. Exhibit 7 illustrates the average time frames within the settlement process. According to DEQ, it may take a while to receive a settlement offer because a facility may choose to appeal their cited violations or request meetings with the agency. As noted previously, the time it takes to issue enforcement actions has increased over the past four fiscal years; therefore, it may be beneficial to require facilities to submit acceptable settlement offers within a determined time frame to better ensure that enforcement cases are closed in a timely manner.

Exhibit 7
Settlement Process
Fiscal Years 2015 through 2019



Source: Prepared by legislative auditor's staff using data from DEQ.

³¹ The check logging and linking process began in fiscal year 2017.

³² Arizona, Maryland, New Jersey, New Mexico, New York, Texas

According to industry stakeholders, DEQ needs to improve its process for finalizing settlements, as it is often slow. We also identified three settlements that had no DEQ activity for more than three years. For example, one \$10,000 settlement has had no activity since 2009, when the settlement offer was sent to the Attorney General for approval as required by state law.³³ However, state law also allows DEQ to finalize the settlement if the Attorney General does not reject the offer within 90 days. In this case, the settlement was never finalized. According to DEQ, delays in processing these settlements were due to turnover, which generally results in a lack of resources and familiarity with the settlement process.

In July 2015, DEQ issued an enforcement action, but DEQ records show no indication of a hearing or meeting request, and it did not receive the initial settlement offer of \$4,113 until October 2016. The settlement offer was finalized more than a year later, in December 2017, for \$8,000.

Recommendation 7: DEQ should streamline the process for receiving and processing facility penalty and settlement payments. DEQ should effectively track all penalties it assesses and ensure that facilities pay the penalties.

Summary of Management's Response: DEQ agrees with this recommendation and states that it acknowledges that there may be room for improvement in the processes and/or manner by which the Financial Services Division and the Enforcement Division communicate on payments received for final Penalty Assessments and Settlement Agreements. However, to state that DEQ does not effectively track penalties it has assessed and whether facilities have paid the assessed amounts is somewhat misleading. Penalty assessments and all other issued actions are tracked by Enforcement Division management utilizing a database query. In addition, the timeframe by which DEQ processes payments will be further reviewed and changes will be immediately implemented for areas identified as needing improvement. See Appendix A for management's full response.

LLA Additional Comments: As stated in the report, while DEQ has monthly listings of penalties and has some reporting capabilities in regards to penalty amounts and payments, it was unable to easily or timely provide accurate, comprehensive data on what penalties it assessed and what had been paid.

Recommendation 8: DEQ should develop reports that can integrate payment data from the fiscal division, as well as capture information from DEQ's legal division, in order to easily identify what penalties and settlements have been paid.

Summary of Management's Response: DEQ agrees with this recommendation and states that it is currently reviewing all processes and procedures in place for penalty and settlement payment processing and will implement any improvements, as appropriate. See Appendix A for management's full response.

³³ LA R.S. 30:2050.7 E(2)(a) and (d)

Recommendation 9: DEQ should establish a process that requires facilities to submit acceptable settlement offers within a certain time frame, such as six months, and draft a penalty amount for those who do not comply.

Summary of Management's Response: DEQ agrees with this recommendation and states that some of the complexities of the enforcement process are not fully detailed in the report. For instance, Compliance Orders and Notices of Potential Penalty are subject to appeal. DEQ may grant or deny the hearing request or may enter into Informal Dispute Resolution. In addition, facilities may require compliance schedules to return to compliance or provide additional information for discussion/consideration. For these reasons, a standard deadline to submit a settlement offer is not appropriate for all facilities. See Appendix A for management's full response.

DEQ faces challenges in performing its required regulatory duties, including low staffing levels, high workloads, frequent turnover of staff, and ineffective data systems.

According to DEQ management and program staff, DEQ faces a variety of challenges. These challenges range from budget cuts, to staffing shortages, to worker turnover, and ineffective data systems, which impact DEQ's ability to ensure the environmental protection of the state.

The Environmental Integrity Project found that between 2008 and 2018, Louisiana cut its funding to environmental protection programs by 35% (ranking 3rd) and reduced its staffing by 30% (ranking 4th).

Source: "The Thin Green Line," Environmental Integrity Project, December 5, 2019.

Despite Louisiana's large number of Title V facilities, DEQ's positions dedicated to air regulation decreased 14.6%,³⁴ from 247 in fiscal year 2010 to 211 in fiscal year 2019, which presents a challenge for staff in performing their responsibilities. Turnover during this time averaged 10.9% and was due to high numbers of resignations, retirements, and voluntary transfers. According to DEQ management, air regulation is complex and staff experience high workloads on top of its complexity. For example, enforcement has approximately 10 staff and handles all enforcement actions for all 500 major facilities plus any other type of facility, such as minor facilities, that receive a violation. Exhibit 8 shows the number of air regulation employees assigned to enforcement functions versus permitting and surveillance duties. Enforcement actions for large facilities are also often highly complex and as a result are very time consuming. DEQ management has also stated that retention of qualified staff is a significant problem, with some staff leaving for opportunities in the private sector after DEQ has invested the time and money to train them.

Exhibit 8 Number of Air Staff Fiscal Year 2019	
DEQ Function	Number of Staff
Air Permitting	43
Air Surveillance	27
Air Enforcement	10
Source: Prepared by legislative auditor's staff using information from DEQ and Business Objects.	

³⁴ Turnover numbers include all inspectors as they cross media types.

The large workload combined with new staff and training creates lags in work. In addition, the workload is often coordinated among multiple divisions, like the fiscal and legal divisions within DEQ. While DEQ implemented an expedited permit program in 2007 to reduce the backlog of permit applications, high workloads still exist including the enforcement and legal sections experiencing backlogs in issuing enforcement actions. Exhibit 9 shows the turnover of air regulation employees from fiscal years 2010 to 2019.

DEQ management should improve its use of data to better monitor air quality in Louisiana.

DEQ relies on coordination of paper-based systems among several divisions. Information is often walked from department to department and entered into its data system, Advantage RM, or scanned into a separate system for documentation. According to DEQ management, they are working on drafting regulations

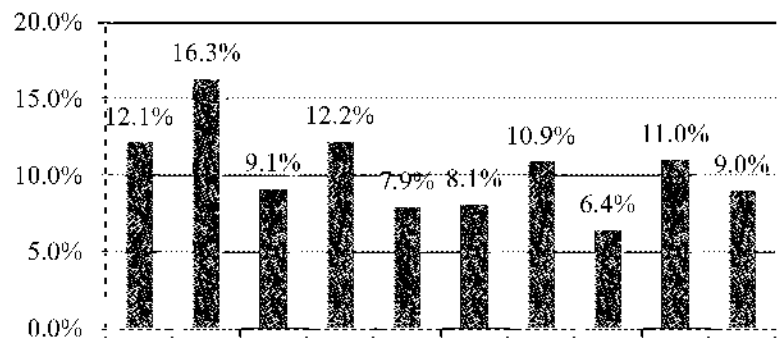
for electronic reporting so that facilities would not be required to physically mail in the numerous reports they are required to submit, and DEQ staff will not be responsible for scanning in each one as they currently do for self-monitoring reports. Electronic methods of delivery within the department and with the facilities they regulate may decrease the time spent on regulation activities for all divisions within DEQ.

Additional data issues exist, including accuracy and completeness, which limit the ability of DEQ management to use Advantage RM to monitor performance and compliance with required activities. DEQ management does not currently have reports that can readily identify how much it has assessed in penalties and what penalties are outstanding or have been paid. DEQ could not easily provide us this information. Not tracking penalty assessments and payments increases the risk that unpaid penalties may go unnoticed. Furthermore, according to DEQ staff, there are only a few employees that have the knowledge to pull reports from Advantage RM.

Recommendation 10: DEQ management should determine whether staffing levels are sufficient to provide quality services, and if not, request funding to hire additional staff.

Summary of Management's Response: DEQ agrees with this recommendation and states that it will analyze positions within the department and consider moving staff in the most appropriate divisions to meet the requirements of the agency. See Appendix A for management's full response.

Exhibit 9
DEQ Air Regulation Turnover
Fiscal Years 2010 through 2019



Source: Prepared by legislative auditor's staff using data from Business Objects.

Recommendation 11: DEQ management should continue to work towards the development and implementation of a comprehensive data system that can provide adequate management reporting.

Summary of Management's Response: DEQ agrees with this recommendation and states that its current data system, Advantage RM, is capable of tracking the Department's activities; however, the number of employees who are able to use the tools/software required to develop and run reports from the data contained in Advantage RM is limited. DEQ is in the process of developing software which will allow additional Enforcement Division and Legal Affairs Division staff to develop and run reports to ensure referrals are addressed in a timely and efficient manner. This software is currently under development with the DEQ's IT Division. See Appendix A for management's full response.

APPENDIX A: MANAGEMENT'S RESPONSE



State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY

January 6, 2021

Mr. Daryl G. Purpera, CPA, CFE
Office of the Legislative Auditor
Post Office Box 94397
Baton Rouge, LA 70804-9397

Dear Mr. Purpera:

This is the Department of Environmental Quality's (DEQ) response to the reportable findings and recommendations presented in the Louisiana Legislative Auditor (LLA) Performance Audit Services report titled "**Monitoring and Enforcement of Air Quality**".

DEQ takes its responsibility to promote and protect public health through sound environmental policy very seriously and appreciates the opportunity to respond to the observations within your report. After reviewing the findings and recommendations, DEQ offers the following responses.

Finding 1: Louisiana has seen improvement in air quality since calendar year 2008. However, certain areas of the state are highly industrialized and have high concentrations of air pollution.

Response: As noted in the report, DEQ has achieved and maintained substantial improvements in air quality over the last ten years despite facing some of the largest state environmental regulatory agency budget and staffing cuts in the nation. The comprehensive and robust air quality monitoring and enforcement activities executed by the department have contributed to a substantial decrease (75.1%) in the number of unhealthy air quality days for Louisiana citizens in sensitive groups.

DEQ currently operates over 40 ambient air monitoring sites throughout the state to monitor air quality. Most of the ambient air monitoring sites are in the "highly industrialized" zones referenced in the report (Exhibit 1). DEQ collected over 1300 air quality samples during the 2019 calendar year to test for a subset of the toxic pollutants noted and explained in Appendix C. It should be noted that none of these pollutants were detected in 2019 ambient air concentrations that exceeded the Louisiana Toxic Air Pollutant Ambient Air Standards.

Finding 2; Recommendation 1: DEQ should vary when they inspect facilities so that they are less predictable as state law stresses the importance of unannounced inspections.

Response: DEQ agrees with this recommendation, and notes that during the later years of the audit timeframe (2017), approval was obtained from the United States Environmental Protection Agency-Region 6 (USEPA-R6) to implement an Alternate Compliance Monitoring Strategy (ACMS) for scheduling and performing inspections of permitted facilities. The ACMS was successfully implemented two (2) years ago and has increased the variability of inspection dates.

A.1

Finding 2; Recommendation 2: DEQ should require secondary evidence, such as photographs, to ensure that inspections actually occurred.

Response: DEQ disagrees with this recommendation, and offers the following information related to the inspection process. DEQ's Standard Operating Procedure (SOP) requires staff (i.e., inspectors) to leave a completed Field Interview Form (FIF) at each facility inspected, which is signed by a facility representative at the conclusion of the inspection. In the isolated case contained in the audit report, a FIF was not completed, signed, or left at the facilities as the inspector did not visit the facilities as required by existing SOP. DEQ notes that this isolated incident of SOP circumvention was voluntarily reported to your office prior to this incident being discovered during the audit and was used as the basis that formed this recommendation.

Finding 2; Recommendation 3: DEQ should review required self-monitoring reports timely to monitor and regulate air quality in Louisiana.

Response: DEQ agrees with this recommendation, and offers the following additional details related to the self-monitoring report review process. DEQ's Enforcement Division receives Semiannual Monitoring and Deviation reports and Annual Compliance Certifications for the approximately 500 Title V permitted facilities in Louisiana. Once these reports are received, key data points are entered into Advantage RM and an Environmental Scientist (ES) reviews any reported deviations to determine if High Priority Violations (HPVs) or other violations which pose significant threat to human health or the environment are reported. If any of the reported deviations fall into one of these categories, the ES will initiate preparing an addressing enforcement action. Reports which do not contain violations of this nature are submitted to DEQs Electronic Data Management System (EDMS) and are thoroughly reviewed during the next routine inspection or file review. Current staffing levels and the volume of reports received impedes the Enforcement Division staff from performing a thorough review upon receipt of every report and from immediately initiating a formal enforcement for every violation reported in either of the aforementioned reports. As suggested in Recommendation 10, DEQ management will review current staffing levels related to self-monitoring report review and may request additional funding to hire additional staff.

It should also be noted that any permittee who fails to submit a Title V semiannual or annual report is currently being identified during its routine inspection or any other file review. For the past several months, the Enforcement Division has been working to improve the quality of historical data in Advantage RM for the Semiannual Monitoring and Deviation reports and Annual Compliance Certifications. As this data is improved, the Enforcement Division will utilize this information to quickly pursue permittees/respondents who failed to submit the required Title V Reports. Queries of this data will be run at least twice per year following the report submission due dates (March 31 and September 30) to determine if any permittees failed to submit its reports. Additionally, as discussed in more detail is the response to Recommendation 4, DEQ is actively pursuing a mechanism for electronic reporting of Semiannual Monitoring and Deviation reports and Annual Compliance Certifications which should result in improved data quality, automated processing of reports into Advantage RM and EDMS, and more efficient review of reported deviations.

Finding 3; Recommendation 4: DEQ should continue to pursue electronic report submissions like other states.

Response: DEQ agrees with this recommendation. DEQ began researching and developing plans for electronic submission of Title V and other Air quality reports prior to this audit. An internal workgroup was formed and has had regular development meetings. An initial request for a developmental quote was submitted to a contractor in November 2020 to help better determine the cost of providing an electronic reporting submission option. Enforcement Division staff are currently working with the contractor to determine DEQ's exact needs so an accurate quote can be obtained. DEQ will continue pursuing electronic submission of Title V and certain other Air quality reports, as it is anticipated this method will reduce workload on staff for processing mail, reduce data errors in Title V Report tracking, improve timeliness of reports being available in the EDMS, and improve the Department's ability to query and manipulate relevant data, including reported deviations. However, it should be noted, that development and implementation of any the electronic submission option that is currently being explored will be dependent upon securing sufficient funding and adequate allocation of Office of Technology (OTS) resources. DEQ is actively researching potential grants and other alternate sources of funding for this project.

Finding 3; Recommendation 5: DEQ should develop formal timeframe goals for how long it should take to issue enforcement actions and monitor its performance based on the timeframe goals.

Response: DEQ agrees with this recommendation, and offers the following additional information related to the enforcement process. The Enforcement Division-Air Enforcement Section has made a substantial effort to address backlog referrals in recent years. This process resulted in actions issued in the later years of the audit period, including FY19, with an increase in time from referral assignment to action issued date. While addressing of backlog referrals is continuing, processes are in place to improve this timeline. Notably, the time from referral assignment to action issuance decreased by 38.9% from FY19 to FY20 (average 344 days).

In addition, all of the activities performed by Enforcement Division staff from the time a referral is assigned until an addressing enforcement action is issued are not fully outlined in the report. More specifically, when inspection referrals are received by the Enforcement Division, a Warning Letter, which is an informal enforcement action, is issued to the facility which encourages a written response to be submitted. In response to the Warning Letter, respondents often request meetings with DEQ or submit information which require further review and consideration to determine valid violations. This information may indicate violations have been corrected, provide additional clarification of the circumstances, or provide documentation that the areas of concern were not violations. These activities, which are important parts to the process, often add to the time it takes to issue an enforcement action. Additionally, many of the states surveyed by the auditor(s) do not have the same quantity or complexity of air quality facilities that are regulated by DEQ. Therefore, it may be inaccurate to compare DEQ to states with less permitted or regulated facilities and/or facilities with less complex operations. However, DEQ does recognize the importance of timely enforcement actions. The Enforcement Division will evaluate the volume and complexity of air enforcement referrals received, all duties and responsibilities involved in preparing addressing actions (as well as post issuance activities, especially the statutory and regulatory requirements respondents are entitled to) and will determine and establish timeliness goals, as appropriate.

Finding 3; Recommendation 6: DEQ should develop additional reporting capabilities for enforcement staff and management to use to better monitor the enforcement process.

Response: DEQ agrees with the recommendation, and offers the following additional information related to the enforcement process. The Enforcement Division-Air Enforcement Section currently runs multiple reports to track and monitor referrals received. These reports contain imperative information which is used to monitor the status of referrals received, issued enforcement actions, settlement offers received and/or settlement agreements. These reports also provide information such as inspection date, referral received and assigned date, and action issued date, which are used to determine timeliness of addressing these cases and identify cases in need of progress. It should be noted the audit report states that DEQ's management can run reports to show the "last action for enforcement cases." However, the reports run include all actions issued and the last task entered into Advantage RM for each action. Although the reports do not currently include information indicating which referrals or actions are already being addressed by a Settlement Agreement or Penalty Assessment, development of this type of report using data systems currently available is in progress. Separate reports are run on a routine basis to monitor the status of cases for which a settlement offer has been received as well as the status of all settlement offers.

The audit report states that the Enforcement Division cannot accurately link all inspections to enforcement actions to determine whether all inspections with violations resulted in an enforcement action. However, when inspection referrals are received by the Enforcement Division, they are immediately assigned an enforcement tracking number within Advantage RM. Once this tracking number is assigned, it remains on the reports Enforcement Division runs and utilizes until the referral is closed with an addressing enforcement action and/or other activity. After which, the violations are deemed addressed in the inspection reports in Advantage RM. This is how inspection referrals are tracked by the Enforcement Division. DEQ has been developing software which will allow management and staff to develop and run more sophisticated reports to improve efficiency in tracking activities. This software will also have the capability to run automated reports which can be used as reminders or triggers for staff. DEQ will continue pursuing development and implementation of this useful tool.

Finding 4; Recommendation 7: DEQ should streamline the process for receiving and processing facility penalty and settlement payments. DEQ should effectively track all penalties it assesses and ensure that facilities pay the penalties.

Response: DEQ agrees with the recommendation and offers the following additional information related to the settlement processes. DEQ acknowledges that there may be room for improvement in the processes and/or manner by which the Financial Services Division (FSD) and the Enforcement Division communicate on payments received for final Penalty Assessments and Settlement Agreements. However, to state that DEQ does not effectively track penalties it has assessed and whether facilities have paid the assessed amounts is somewhat misleading. Penalty assessments and all other issued actions are tracked by Enforcement Division management utilizing the "Issued Action" query in Advantage RM. Additionally, this information is manually verified monthly before being posted to the DEQ's website and is also compiled and reported annually to the Louisiana Legislature.

DEQ issues two types of penalties, Penalty Assessments (PAs) and Expedited Penalty Agreements & Notices of Potential Penalties (XPs), both of which are combined under the term "penalty" in the audit report. PAs are formal enforcement actions which can be appealed, delaying the payment or closure process through hearings or Informal Dispute Resolution (IDR).

XPs are part of a voluntary expedited penalty program, and have other requirements in addition to payment in order to comply. By regulation, facilities are not in compliance with an XP until both payment and the signed XP form certifying compliance are returned to DEQ. Additionally, some XPs also require reports, such as emission inventories, be submitted before the action can be closed. In isolated cases, both XPs and PAs, may also be closed without payment (i.e., Respondent demonstrates an inability to pay or Respondent is insolvent, etc.). Since DEQ-Enforcement Division's primary goal is to obtain compliance, Air Enforcement management tracks PAs and XPs from issuance to closure to ensure all steps of the process, not just payment, are completed.

DEQ will continue tracking PAs and XPs to ensure payments are timely submitted and/or compliance is achieved in the required timeframe. The timeframe by which the FSD processes payments received for penalties and/or XPs and notifies the Enforcement Division of such will be further reviewed and changes will be immediately implemented for areas identified as needing improvement. FSD will continue to work toward faster depositing, classification, and posting of penalty payments to customer accounts and Advantage RM. It is important to note that there are often delays in receiving these payments (mail delays, mail routed to other divisions, identifying information not included, etc.). FSD will continue to work with the Enforcement Division to ensure it is kept informed of any delays in posting payments.

Finding 4; Recommendation 8: DEQ should develop reports that can integrate payment data from the fiscal division, as well as capture information from DEQ's legal division, in order to easily identify what penalties and settlements have been paid.

Response: DEQ agrees with this recommendation. DEQ is currently reviewing all processes and procedures in place for penalty and settlement payment processing and will implement any improvements, as appropriate.

Finding 4; Recommendation 9: DEQ should establish a process that requires facilities to submit acceptable settlement offers within a certain timeframe, such as six months, and draft a penalty amount for those who do not comply.

Response: DEQ agrees with this recommendation, and offers the following information related to the settlement process. Some of the complexities of the enforcement process are not fully detailed in the report. For instance, Compliance Orders and Notices of Potential Penalty (CONOPPs) are subject to appeal. DEQ may grant or deny the hearing request or may enter into Informal Dispute Resolution (IDR). In addition, facilities may require compliance schedules to return to compliance or provide additional information for discussion/consideration. For these reasons, a standard deadline to submit a settlement offer is not appropriate for all facilities. It should also be noted that DEQ has existing procedures to facilitate timely settlement offers such as the "REQUEST TO SETTLE" form and Settlement Agreement Brochure which are attached to all CONOPPs and Notices of Potential Penalty (NOPPs) that are issued by DEQ. DEQ agrees revising the "REQUEST TO SETTLE" form to include a recommended timeframe to submit a settlement offer may improve the existing process.

Finding 5; Recommendation 10: DEQ management should determine whether staffing levels are sufficient to provide quality services, and if not, request funding to hire additional staff.

Response: DEQ agrees with this recommendation. DEQ will analyze positions within the department and consider moving staff in the most appropriate divisions to meet the requirements of the agency. While we appreciate the recommendation to request additional positions for the

agency, given the current funding position of the agency and the state, the ability to obtain more positions may not be feasible at this time.

Finding 5; Recommendation 11: DEQ management should continue to work towards the development and implementation of a comprehensive data system that can provide adequate management reporting.

Response: DEQ agrees with this recommendation. DEQ's current data system, Advantage RM, is capable of tracking the Department's activities; however, the number of employees who are able to use the tools/software required to develop and run reports from the data contained in Advantage RM is limited. DEQ is in the process of developing software which will allow additional Enforcement Division and Legal Affairs Division staff to develop and run reports to ensure referrals are addressed in a timely and efficient manner. This software is currently under development with the DEQ's IT Division.

The Legal Affairs Division would like to clarify that regulations are not currently being drafted to allow/require electronic reporting for Title V and/or other air quality reports. However, DEQ is in the process of drafting regulations regarding improving Title V reporting, and is also in the process of pursuing development of a system which will allow facilities to electronically file Title V and/or other Air quality reports. This system will be integrated with Advantage RM and will automate and improve many functions related to reviewing and processing the reports.

Furthermore, and as previously discussed in the responses to Recommendations 3 and 7, certain issues with data accuracy and completeness have already been identified by DEQ. Efforts to resolve these issues and implement processes to ensure data accuracy are underway. The new software under development will allow Enforcement Division management to more frequently monitor the completeness and accuracy of this data entry. DEQ will continue pursuing the development and implementation of software to provide improved reporting and tracking.

As always, we appreciate the assistance of the LLA and will continue to look for ways to optimize DEQ's air quality monitoring and enforcement processes to provide for a better environment for current and future citizens of Louisiana. We look forward to your continued assistance in this endeavor.

Sincerely,



Chuck Carr Brown, Ph.D.
Secretary

APPENDIX B: SCOPE AND METHODOLOGY

This report provides the results of our performance audit of the Louisiana Department of Environmental Quality (DEQ). We conducted this performance audit under the provisions of Title 24 of the Louisiana Revised Statutes of 1950, as amended. This audit covered DEQ's monitoring and enforcement of air quality regulations during fiscal years 2015 through 2019. Our audit objective was:

To evaluate DEQ's monitoring and enforcement of air quality regulations.

Because this audit began at the onset of the COVID-19 pandemic, we could not perform typical audit procedures such as obtaining physical evidence by participating in an air inspection, conducting extensive in-person interviews, observing the complaint procedures, etc. As a result, our audit scope was limited to DEQ's monitoring and enforcement of air quality regulations. We conducted this performance audit in accordance with generally-accepted *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide reasonable basis for our findings and conclusions based on our audit objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. To answer our objective, we reviewed internal controls relevant to the audit objective and performed the following audit steps:

- Researched and reviewed relevant state and federal statutes and regulations to identify criteria relating to DEQ's responsibilities for the monitoring and enforcement air quality regulations.
- Obtained self-reported ERIC emissions data from permitted facilities for calendar years 2008 through 2018. Documented air quality trends by parishes and pollutants. Researched pollutants that pose a threat to air quality and the public health issues related to pollution. Because the ERIC data provided information only, we did not test the accuracy and completeness of this data set, but noted in our charts that the information is self-reported from companies.
- Researched past air quality related audits in Louisiana and other states, as well as recommended best practices from studies conducted by local and national environmental organizations.
- Interviewed relevant staff from DEQ to understand processes related to air quality and management of DEQ databases. We met with stakeholders including environmental advocacy groups, legislative staff, and industry lobbyists. From these agency and stakeholder interviews, we identified nine other states with similar industry characteristics we compared to DEQ's monitoring and

enforcement policies. These states include Arkansas, Arizona, Colorado, Maryland, New Jersey, New Mexico, New York, Texas, and Washington.

- Obtained and reviewed any policies and procedures on monitoring and enforcing air quality regulations. This included obtaining policies on air permitting, surveillance, enforcement, and public engagement.
- Obtained information regarding a former DEQ employee who falsified inspections. Followed up with DEQ management on how they responded to the incident.
- Reviewed DEQ's monitoring and enforcement efforts compared to what is required in law and best practices. This included evaluating DEQ's monitoring and enforcement action procedures, including how it uses self-monitoring reports, the timeliness of its enforcement process from the inspections, referrals to enforcement, the assignment of penalties to staff, the enforcement action issued, and how long it took to close an enforcement action. We also reviewed the settlement process and obtained all pending and finalized settlements that occurred within the scope. We calculated the amounts to be collected from pending and finalized settlements and assessed the reasons for delays found in the settlement process. We then reviewed the penalty payment process and obtained the check log of penalty payments to determine if penalties were paid and processed in a timely manner.
- Obtained enforcement action data to determine facilities' overall permit compliance. We categorized similar violations together and then performed various analyses to identify amounts of violations issued and the most common types of violations.
- Conducted a file review of 50 enforcement actions to determine specific information of the violation type, how long it took DEQ to identify the violation, how long it took DEQ to issue a corrective action, and the corrective action. For the section of the 50 enforcement actions, we incorporated a range of how long it took DEQ to issue the enforcement action.
- Obtained and analyzed multiple processes from DEQ's database, Advantage RM, including (1) determining the number of permits, (2) the number of variances granted on permits, (3) performing cursory testing to determine if permits were renewed in a timely manner, (4) determining the frequency and timing of semi-annual inspections, (5) frequency of various compliance status resulting full-compliance inspections, (6) the average length of time it took to forward inspection violations to the enforcement division, and (7) calculate the number of working days it took to issue an enforcement action following the receipt of a referral, as well as the days to close the enforcement action following the issuance.

- To assess the completeness and accuracy of key data fields in Advantage RM, tested key fields in key data tables against DEQ's Electronic Document Management System. Overall, we found these fields to be generally complete and reliable for the purposes of answering our audit objectives, except for data regarding semi-annual and annual self-monitoring fields relevant to our analysis. We found Advantage RM to be incomplete for this data and therefore unreliable to determine whether facilities submitted required reports. As a result, this issue was identified in report.
- Obtained submitted Title V Annual Compliance Certification reports and Semi-Annual certification reports and compared them to the entire list of Title V companies to determine how many companies had not submitted required self-monitoring reports. Even though this field was deemed unreliable in Advantage RM, we recommended that DEQ use this as a starting point when identifying companies that did not submit their required reports.
- Reviewed statute and regulations related to environmental justice. We conducted a file review to find any complaints related to environmental justice, as well as a review of commitments DEQ took in regard to environmental justice. We researched and reviewed other states best practices regarding environmental justice to compare them to DEQ's efforts.
- Obtained logs of activity from the public participation group to test if public notice, public meetings, and public hearings were conducted at the appropriate times according to statute.
- Obtained environmental incident and complaint data in order to identify if incidents and complaints were followed up on within the prescribed timeline.
- Obtained state business objects reports to analyze staffing levels and turnover of DEQ from fiscal years 2010 through 2019.
- Provided our results to DEQ to review for accuracy and reasonableness.

APPENDIX C: CRITERIA POLLUTANTS

Pollutant	How It Forms	Health Effects
Carbon Monoxide (CO)	Burning of fossil fuels, such as in cars, trucks and other vehicles or machinery.	Headache, dizziness, vomiting, and nausea while elevated levels over long periods of time may result in angina.
Lead	Ore and metal processing and piston-engine aircraft operating on leaded aviation fuel; waste incinerators, utilities, and lead-acid battery manufacturers.	Affects the nervous system, kidney function, immune system, reproductive and development systems, and the cardiovascular system, in addition to the oxygen carrying capacity of blood. Infants and young children are sensitive to low levels, which contribute to behavioral problems, learning deficits, and lowered IQ.
Nitrogen Dioxide (NO₂)	Emissions created from the burning of fuel from cars, trucks and buses, power plants, and off-road equipment.	Short-term exposure may aggravate respiratory diseases including asthma, leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions, and visits to emergency rooms. Long-term exposure to elevated levels may contribute to the development of asthma and may increase the susceptibility to respiratory infections.
Ozone (O₃)	Chemical reactions between nitrogen oxides, such as NO ₂ , and other volatile organic compounds (VOC) when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and others chemically react in the presence of sunlight.	Chest pain, throat irritation, and airway inflammation; reduced lung function; damage to lung tissue; aggravate bronchitis, emphysema, asthma, and other lung diseases; increase the frequency of asthma attacks; and cause chronic obstructive pulmonary disease (COPD). Those at most risk are people with asthma, children, older adults, and people who are active outdoors.
Particulate Matter (PM_{2.5} and PM₁₀)	Result of reactions of other chemicals polluted from power plants, industries, automobiles, construction sites, unpaved roads, fields, smoke stacks, or fires.	Premature death in people with heart or lung disease; non-fatal heart attacks; irregular heartbeat; irritation of the airways leading to coughing or difficulty breathing, aggravated asthma, and decreased lung function.
Sulfur Dioxide (SO₂)	Burning of fossil fuels by power plants and other industrial facilities, locomotives, ships and other vehicles and heavy equipment that burn fuel with high sulfur content.	Short-term exposure can harm the respiratory system, making breathing difficult. People with asthma, especially children, are most sensitive.

APPENDIX D: PERMIT ACTION DESCRIPTIONS

FISCAL YEARS 2015, 2019

Permit Actions	Description	FY 2015	FY 2019
Minor Initial Permits	The first version of a permit resulting from the initial application of a permit from a business seeking to emit air pollutants.	461	248
Title V Initial Permits		25	16
Authorization to Construct	DEQ's grant of approval for a facility to begin building the affected source following the completion of the initial permit.	18	18
Minor Administrative Amendments	Revisions to a permit for any change that would not violate any applicable requirement or standard (ex. ownership changes).	56	9
Title V Administrative Amendments		52	15
Minor Source Modifications	Modifications to a minor (state) permit.	420	277
Title V Minor Modifications	Any modification to a major source permit that would not violate any federally applicable requirement or standard. These modifications require a public participation time frame.	163	178
Title V Major Modification	Any physical change, or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any regulated pollutant.	21	17
Variance	Variances are granted when DEQ finds that by reason of exceptional circumstances strict conformity with some provisions of their permit would cause undue hardship to the owner. These may not authorize a danger to public health.	191	160
Minor Renewal (10 years)	A request for the continuation of a permit upon expiration of the current permit's term.	0	0
Title V Renewal (5 years)		133	122
Exemptions	Sources that do not require permits (ex. pesticides, mobile sources, controlled burning).	24	5
Acid Rain Permits	Puts a cap on emissions of SO ₂ and NO _x , the primary causes of acid rain. It is incorporated with the Title V permit.	6	13
Letters	Occasionally an applicant may require clarification on a permit or seek affirmation that an activity does not require formal authorization. These responses are called Letters of Response or of No Objection.	370	621
Total		1,940	1,699
Source: Prepared by legislative auditor's staff using DEQ's permitting data.			

APPENDIX E: COUNT OF ACTIVE AIR PERMITS BY PARISH FISCAL YEARS 2015 THROUGH 2019

Parish	FY 15		FY 16		FY 17		FY 18		FY 19	
	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits
Acadia	12	117	12	125	12	111	12	106	13	107
Allen	3	50	3	55	3	53	4	52	5	49
Ascension	72	47	71	49	67	45	67	50	67	52
Assumption	9	28	7	29	6	28	6	27	7	25
Avoyelles	1	15	1	16	1	15	1	16	2	17
Beauregard	8	129	8	129	8	128	8	127	9	123
Bienville	9	798	9	756	8	729	8	657	9	299
Bossier	9	445	7	443	7	445	7	357	6	333
Caddo	11	580	11	572	11	549	10	463	12	293
Calcasieu	89	210	90	205	92	199	89	198	94	184
Caldwell	1	22	1	21	1	16	1	9	2	7
Cameron	17	134	18	133	19	128	17	118	17	113
Catahoula	0	11	0	11	0	10	0	7	0	7
Claiborne	2	306	2	309	2	309	2	288	3	287
Concordia	1	11	1	18	1	17	0	20	0	20
DeSoto	11	1180	9	1193	8	1188	9	822	11	354
East Baton Rouge	62	90	58	88	57	84	56	85	59	87

Parish	FY 15		FY 16		FY 17		FY 18		FY 19	
	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits
East Carroll	1	3	1	3	1	3	1	4	2	4
East Feliciana	4	13	4	11	4	13	4	12	5	11
Evangeline	6	129	6	128	5	123	6	121	7	117
Franklin	1	5	1	6	1	5	1	5	2	6
Grant	2	6	2	6	3	4	3	3	4	3
Iberia	8	95	7	89	7	83	8	81	9	78
Iberville	55	86	55	89	54	83	55	81	55	83
Jackson	3	378	3	376	2	364	2	364	3	56
Jefferson	12	112	12	112	10	107	10	97	11	100
Jefferson Davis	5	75	4	71	3	71	4	66	5	67
Lafayette	5	66	5	66	5	60	5	57	5	55
Lafourche	13	184	12	187	11	172	11	160	13	159
LaSalle	4	95	4	89	4	77	5	76	6	75
Lincoln	5	327	5	334	5	324	5	329	6	385
Livingston	4	27	4	27	4	25	4	23	5	21
Madison	2	10	2	9	2	9	2	9	3	9
Morehouse	2	5	2	5	2	5	2	5	3	5
Natchitoches	7	27	7	23	7	21	7	21	8	22
Orleans	6	60	6	61	6	55	6	55	7	52
Ouachita	22	91	22	85	22	72	20	59	20	58
Plaquemines	39	224	38	225	36	211	37	201	37	194
Pointe Coupee	5	71	5	69	5	63	5	63	6	63
Rapides	11	60	10	62	10	63	9	56	9	54

Parish	FY 15		FY 16		FY 17		FY 18		FY 19	
	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits
Red River	10	184	4	186	4	185	4	101	5	65
Richland	4	9	4	11	3	11	3	13	4	15
Sabine	2	96	2	96	3	94	3	17	5	19
St. Bernard	21	25	21	24	22	22	22	21	23	21
St. Charles	62	48	63	54	61	49	54	49	57	51
St. Helena	2	20	2	19	2	22	2	20	3	21
St. James	21	34	21	34	20	35	21	34	23	34
St. John the Baptist	13	29	13	32	14	29	14	25	15	24
St. Landry	7	54	7	60	7	58	7	54	8	57
St. Martin	2	69	3	74	3	68	3	68	4	69
St. Mary	24	137	22	132	21	113	21	105	22	101
St. Tammany	1	24	1	24	1	20	1	17	2	14
Tangipahoa	2	24	2	24	2	21	2	21	3	22
Tensas	1	7	1	23	1	23	1	23	2	25
Terrebonne	13	211	13	199	13	183	12	175	13	168
Union	2	31	2	32	2	32	2	30	3	27
Vermilion	13	164	13	159	13	151	12	146	13	145
Vernon	2	77	2	79	2	73	2	46	3	44
Washington	5	12	5	12	5	10	6	9	7	9
Webster	9	287	9	287	8	283	7	249	7	193
West Baton Rouge	10	48	9	46	9	45	9	51	10	53
West Carroll	1	3	1	3	1	3	1	3	2	3
West Feliciana	2	11	2	10	2	9	2	6	3	8

Parish	FY 15		FY 16		FY 17		FY 18		FY 19	
	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits	Major Permits	Minor Permits
Winn	4	10	4	9	4	7	4	5	6	5
*Major source permits are permits subject to Title V of the Clean Air Act. Minor source permit include portable source permits, general small source permits regulatory permits, state permits, synthetic minor permits, and state oil and gas permits. Source: Prepared by legislative auditor's staff using data from DEQ's permitting data.										

APPENDIX F: TOP 25 POLLUTANTS CALENDAR YEARS 2008 AND 2018

Pollutant	Tons per Year 2008	Tons per Year 2018	Percent Change
Nitrogen Oxides	185,114.2	138,414.5	-25.2%
Sulfur Dioxide	227,380.0	129,663.2	-43.0%
Carbon Monoxide	135,132.6	97,512.6	-27.8%
VOC's	68,408.0	57,252.7	-16.3%
Particulate matter (10 microns or less)	29,345.0	29,905.4	1.9%
Particulate matter (2.5 microns or less)	18,365.2	18,456.1	0.5%
Ammonia	7,078.7	10,462.1	47.8%
Methanol	5,700.7	5,655.9	-0.8%
n-Hexane	1,899.4	1,994.6	5.0%
Ethylene	1,221.6	1,000.9	-18.1%
Sulfuric Acid	1,232.1	968.8	-21.4%
Hydrochloric Acid	800.5	786.5	-1.8%
Hydrogen Cyanide	39.6	771.7	1847.8%
Hydrogen Sulfide	903.9	725.1	-19.8%
Propylene	510.9	703.3	37.7%
Toluene	828.3	451.6	-45.5%
Formaldehyde	322.0	428.6	33.1%
Xylene (mixed isomers)	574.8	363.6	-36.7%
Acetaldehyde	402.1	341.3	-15.1%
Nitric Acid	26.6	276.8	941.2%
Methyl Ethyl Ketone	339.9	258.2	-24.1%
Benzene	332.9	256.2	-23.0%
Styrene	255.7	239.6	-6.3%
Carbon Disulfide	199.8	208.7	4.5%
Chlorine	113.8	182.9	60.8%

*ERIC data is self-reported data that is estimated and then aggregated into the inventory. All major sources, some minor sources, and some facilities in non-attainment areas are required to report. Due to COVID-19 DEQ extended the due date of annual ERIC emission reports from April 30, 2020, to May 30, 2020. As of 9/21/20, only 33 permitted facilities had submitted their reports.

Source: Prepared by legislative auditor's staff using DEQ's ERIC data.

APPENDIX G: SELF-REPORTED EMISSIONS BY PARISH CALENDAR YEARS 2016 THROUGH 2018

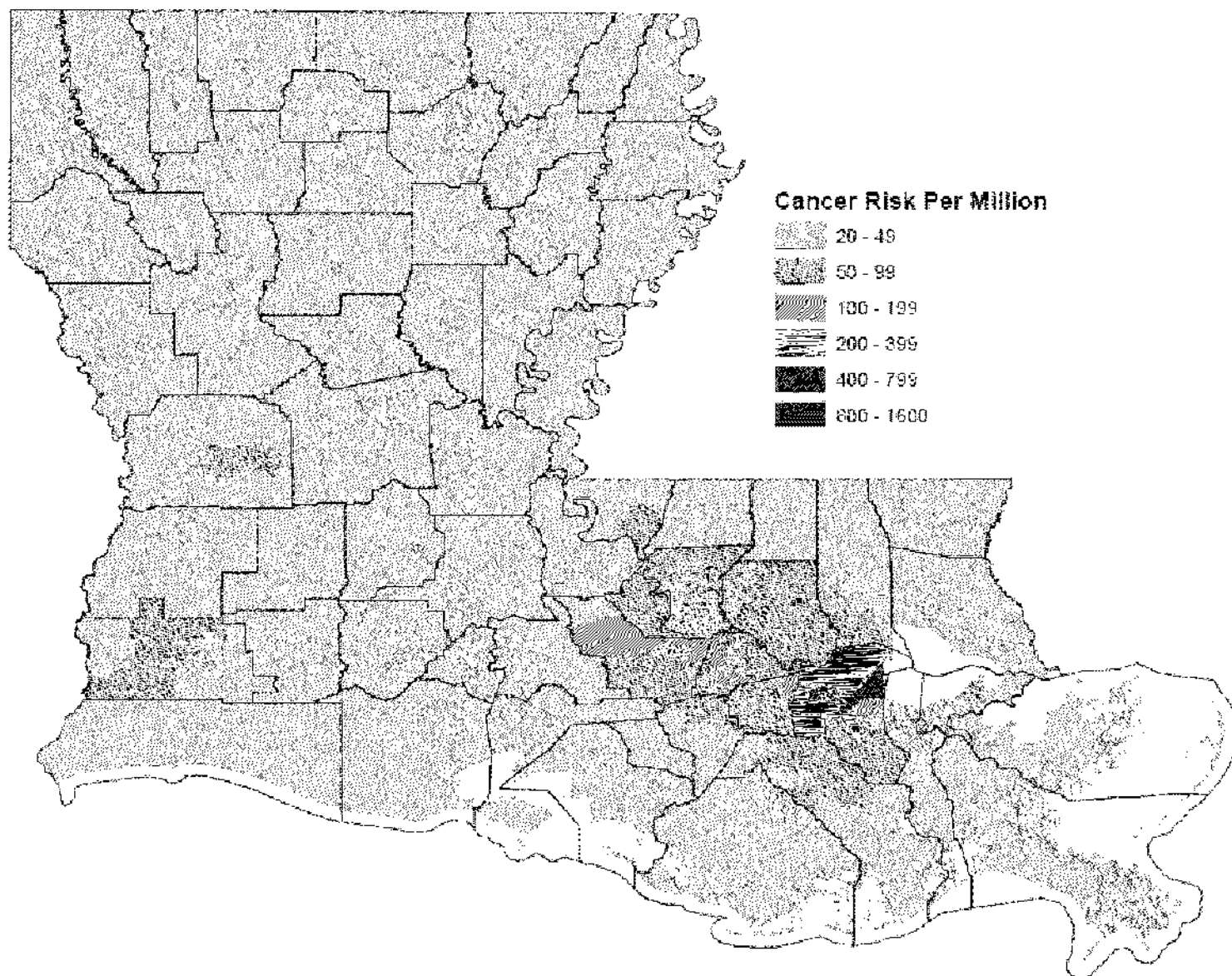
Parish	CY 16		CY 17		CY 18		Percent Change	
	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants
Acadia	77.7	4,538.9	80.8	4,302.1	79.2	5,275.5	1.9%	16.2%
Allen	70.7	3,143.9	63.7	2,870.0	59.1	2,741.3	-16.5%	-12.8%
Ascension	6,617.6	18,768.1	7,012.2	18,127.2	7,032.6	18,269.3	6.3%	-2.7%
Assumption	14.4	2,008.7	18.3	1,984.1	12.3	2,029.0	-14.5%	1.0%
Avoyelles	-	465.3	-	510.6	-	648.1	-	39.3%
Beauregard	310.4	40,414.7	335.8	6,470.4	326.7	6,550.0	5.2%	-83.8%
Bienville	0.7	3,151.3	5.1	2,771.8	22.9	2,519.4	3284.6%	-20.1%
Bossier	-	1,248.5	-	1,278.3	-	1,249.0	-	0.0%
Caddo	152.8	4,167.9	160.8	4,369.2	143.3	3,876.6	-6.2%	-7.0%
Calcasieu	3,055.3	61,870.2	2,488.1	65,408.5	1,953.1	69,016.6	-36.1%	11.6%
Caldwell	0.2	72.8	0.2	461.4	0.2	715.8	0.0%	883.1%
Cameron	21.5	3,057.4	35.4	5,671.2	42.8	6,657.0	99.0%	117.7%
Claiborne	0.2	416.6	0.2	299.8	0.2	410.9	0.0%	-1.4%
DeSoto	2,137.3	31,611.8	2,188.5	22,637.0	2,167.6	20,476.3	1.4%	-35.2%
East Baton Rouge	2,346.5	40,632.1	2,041.3	49,769.3	2,244.5	40,433.3	-4.3%	-0.5%
East Carroll	-	11.0	-	28.0	-	28.8	-	163.1%
East Feliciana	25.9	913.0	24.5	656.4	26.6	841.0	2.5%	-7.9%
Evangeline	107.4	12,862.6	131.4	16,183.9	146.5	16,554.0	36.5%	28.7%

Parish	CY 16		CY 17		CY 18		Percent Change	
	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants
Franklin	-	17.0	-	25.3	-	258.7	-	1422.9%
Grant	32.2	876.9	41.7	926.2	40.9	951.4	26.9%	8.5%
Iberia	53.4	3,564.0	18.1	3,394.5	17.4	3,768.2	-67.4%	5.7%
Iberville	2,373.3	14,662.5	2,803.3	13,960.8	2,722.4	14,585.9	14.7%	-0.5%
Jackson	342.7	3,899.7	492.9	4,860.8	513.6	5,423.8	49.9%	39.1%
Jefferson	381.4	16,773.3	476.6	11,956.4	513.6	11,143.3	34.7%	-33.6%
Jefferson Davis	1.3	432.8	1.2	457.2	1.1	869.5	-14.1%	100.9%
Lafayette	0.7	1,229.5	0.7	1,431.4	0.7	1,359.6	0.0%	10.6%
Lafourche	32.3	3,384.4	45.1	3,348.9	25.1	3,381.9	-22.2%	-0.1%
LaSalle	9.2	425.8	2.0	261.4	1.3	766.7	-86.1%	80.1%
Lincoln	66.3	2,708.0	67.4	2,734.8	65.5	2,686.9	-1.2%	-0.8%
Livingston	49.8	1,286.2	74.5	1,393.0	64.9	1,470.5	30.2%	14.3%
Madison	-	125.3	-	123.5	-	132.2	-	5.5%
Morhouse	13.5	708.7	17.8	1,279.0	0.4	2,090.4	-96.8%	195.0%
Natchitoches	584.2	5,462.0	574.0	4,759.9	531.1	4,631.5	-9.1%	-15.2%
Orleans	4.0	1,543.1	3.8	1,265.3	5.7	1,443.2	43.0%	-6.5%
Ouachita	1,641.8	11,407.7	1,548.8	10,978.4	1,665.0	11,825.5	1.4%	3.7%
Plaquemines	193.5	8,303.1	231.0	7,682.8	215.1	7,479.1	11.1%	-9.9%
Pointe Coupee	351.3	30,502.9	485.3	33,005.3	356.2	25,684.1	1.4%	-15.8%
Rapides	154.0	15,391.4	150.7	13,727.6	168.9	18,232.8	9.7%	18.5%
Red River	36.9	10,182.9	32.8	8,943.5	34.7	8,323.4	-5.8%	-18.3%
Richland	11.6	1,023.8	11.8	1,029.6	19.6	1,354.5	69.7%	32.3%
Sabine	100.5	1,188.6	102.3	1,226.7	118.3	1,284.4	17.7%	8.1%
St. Bernard	291.7	9,285.2	296.9	7,760.1	253.2	7,474.7	-13.2%	-19.5%
St. Charles	1,847.9	36,297.7	1,711.7	32,947.7	1,877.2	32,856.1	1.6%	-9.5%
St. Helena	-	301.8	-	322.6	-	338.2	-	12.1%

Parish	CY 16		CY 17		CY 18		Percent Change	
	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants	Toxic Air Pollutants	Criteria Pollutants
St. James	1,912.3	16,514.7	1,781.1	19,089.5	1,368.5	14,444.4	-28.4%	-12.5%
St. John the Baptist	497.6	9,304.3	472.2	9,941.5	414.2	9,996.4	-16.8%	7.4%
St. Landry	82.5	3,240.8	104.8	3,020.7	105.5	3,054.7	27.9%	-5.7%
St. Martin	17.5	1,932.2	22.1	1,998.5	24.2	1,963.4	37.9%	1.6%
St. Mary	455.6	30,048.9	503.2	33,881.7	522.3	36,483.7	14.6%	21.4%
St. Tammany	-	-	-	-	-	-	-	-
Tangipahoa	-	476.4	0.0	485.7	0.0	462.1	-	-3.0%
Tensas	-	8.5	-	8.4	-	7.6	-	-10.1%
Terrebonne	44.6	1,355.1	50.2	1,122.9	20.6	1,094.3	-53.7%	-19.2%
Union	-	363.8	2.3	396.4	1.5	421.9	-	16.0%
Vermilion	57.3	3,356.1	44.3	2,935.7	54.2	3,269.6	-5.4%	-2.6%
Vernon	1.4	42.8	0.2	40.5	0.2	79.5	-84.5%	85.7%
Washington	1,497.1	9,967.3	1,456.9	10,798.0	1,528.2	11,228.5	2.1%	12.7%
Webster	9.2	2,474.1	9.4	2,217.0	9.1	2,016.7	-0.9%	-18.5%
West Baton Rouge	238.2	12,622.3	270.9	12,209.8	229.2	12,444.1	-3.8%	-1.4%
West Carroll	-	124.2	-	129.0	-	126.0	-	1.4%
West Feliciana	316.1	2,621.9	267.3	2,854.2	311.6	2,931.8	-1.4%	11.8%
Winn	126.7	3,126.4	129.1	3,177.5	135.6	3,069.8	7.0%	-1.8%
*ERIC data is self-reported data that is estimated and then aggregated into the inventory. All major sources, some minor sources, and some facilities in non-attainment areas are required to report. Due to COVID-19 DEQ extended the due date of annual ERIC emission reports from April 30, 2020 to May 30, 2020. As of 9/21/20, only 33 permitted facilities had submitted their reports.								
Source: Prepared by legislative auditor's staff using data from DEQ's emissions inventory data.								

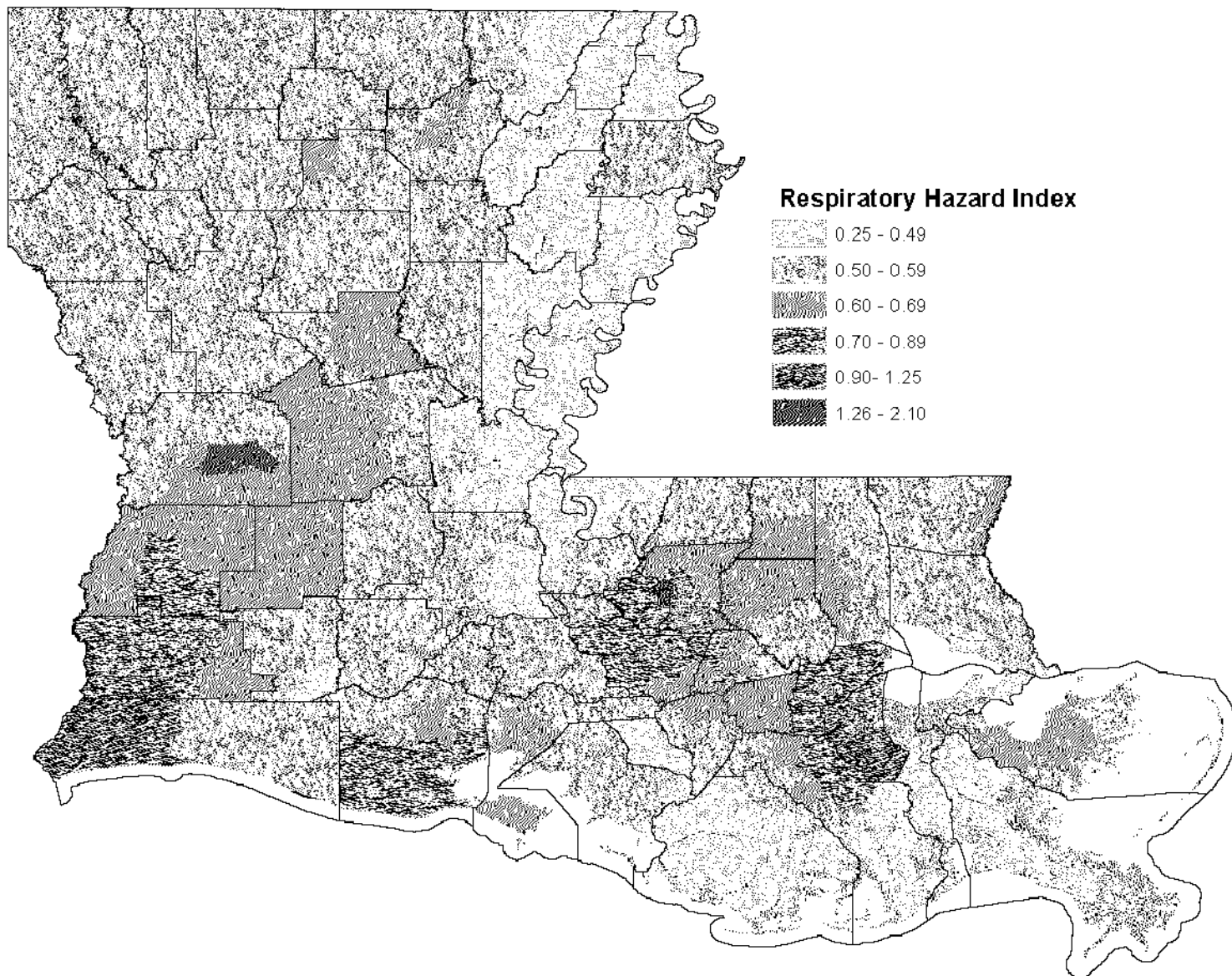
APPENDIX H: POTENTIAL CANCER RISK PER MILLION

Potential Cancer Risk Per Million By US Census Tract 2014 EPA National Air Toxics Assessment Data



APPENDIX I: RESPIRATORY HAZARD INDEX

Respiratory Hazard Index by US Census Tract 2014 EPA National Air Toxics Assessment



APPENDIX J: ENFORCEMENT ACTION DESCRIPTIONS

Number and Descriptions of Enforcement Actions* Fiscal Years 2015 & 2019			
Types of Enforcement Actions	Description	Actions FY 15	Actions FY 19
Notice of Corrected Violation (NOCV)	Can be drafted when the violation is corrected and it has been verified.	15	5
Notice of Violation (NOV)	Drafted when violations are minor but may not have been corrected timely or verified.	2	23
Compliance Order (CO)	Drafted when further action by the Respondent is needed to mitigate the violations, interim limitations are needed, or a compliance/construction schedule is needed.	4	7
Consolidated Compliance Order and Notice of Potential Penalty (CONOPP)	Drafted when further action is needed by the Respondent to mitigate the violations and that may warrant a penalty.	52	55
Notice of Potential Penalty (NOPP)	Drafted when violation has been corrected or is no longer occurring and it warrants a penalty.	40	52
Penalty Assessment (PA)	May be drafted after issuance of CONOPP or NOPP and consideration of the Nine Factors and a penalty is appropriate.	10	4
Expedited Penalty Agreement and NOPP	Minor or moderate violations are eligible to go through the expedited enforcement program. This program expedites penalties and orders requiring compliance within a specified time period.	51	51
Administrative Order (AO)	Drafted when there is no specific violation but there is an environmental concern and action is needed to correct.	0	0
Administrative Order on Consent	Similar to an AO but becomes final and effective upon signature of the Assistant Secretary and the Respondent.	2	0
Total		176	197
*Only includes air and multimedia (containing air) enforcement actions. It does not include asbestos or lead enforcement actions. Source: Prepared by legislative auditor's staff using data from DEQ's permitting data.			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

January 24, 2022

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7010 1060 0002 1871 9423

Lanc Grant
Environmental Manager
Nucor Steel Louisiana LLC
9101 LA Highway 3125
Convent, Louisiana 70723

Lanc.Grant@nucor.com

Re: Clean Air Act Notification of Violation and Opportunity to Confer

Dear Mr. Grant:

The United States Environmental Protection Agency, Region 6 ("EPA") has identified Nucor Steel Louisiana LLC ("Nucor") as having violated the Clean Air Act ("CAA"). This Notice of Violation and Opportunity to Confer ("Notice") is issued to Nucor for violations of the CAA, 42 U.S.C. § 7401, *et seq.*, and violations of Title 33, Part III of the Louisiana Administrative Code ("L.A.C.") at its Direct Reduced Iron ("DRI") facility in Convent, Louisiana ("Facility"). Based on information currently available, EPA finds that Nucor¹ has violated General provisions of the National Emission Standards for Hazardous Air Pollutants for Source Categories ("NESHAP") Subpart A and the conditions of Louisiana's federally approved State Implementation Plan ("SIP") as incorporated into the Facility's Title V Permit. By this letter, EPA is extending to you an opportunity to advise the Agency, via a conference call or in writing, of any further information EPA should consider with respect to the alleged violations.

This Notice is issued pursuant to Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1), which requires the Administrator of the EPA to notify any person in violation of a SIP or permit of the violation(s) and serves as the finding and notice required by this Section. The authority to issue this Notice has been delegated to the Director of the Enforcement and Compliance Assurance Division, EPA Region 6.

¹ Please be advised that some companies may qualify as a "small business" under the Small Business Regulatory Enforcement and Fairness Act ("SBREFA"). The U.S. Small Business Administration has established a Table of Small Business Size Standards, which can be found at: http://www.sba.gov/sites/default/files/Size_Standards_Table.pdf. The SBREFA Information Sheet provides information on compliance assistance to entities that may qualify as small businesses as well as to inform them of their right to comment to the SBREFA Ombudsman concerning EPA enforcement activities. The SBREFA Information Sheet can be found at: <http://nepis.epa.gov/Exc/ZyPDF.cgi/P100BYAV.PDF?Dockey=P100BYAV.PDF>.

CAA Violations

We are sending this letter to inform Nucor of the following alleged violations at Nucor's Facility:

1. Unauthorized emissions of hydrogen sulfide during 2017, 2018, 2019, and 2020 in violation of requirements under 40 C.F.R. § 63.6(e)(1)(i), L.A.C. 33: III.501.C.2, and the Facility's Title V Permit;
2. Unauthorized emissions of sulfuric acid mist during 2017, 2018, 2019, and 2020 in violation of 40 C.F.R. § 63.6(e)(1)(i), L.A.C. 33: III.501.C.2, and the Facility's Title V Permit; and
3. Emissions of sulfur dioxide in excess of permitted limits during 2018 and 2020 in violation of 40 C.F.R. § 63.6(e)(1)(i), L.A.C. 33: III.501.C.4, and the Facility's Title V Permit.

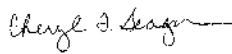
Please review the specific violations and information we have provided in the Enclosure regarding each of the facilities at issue.

Opportunity to Confer

This Notice provides you with the opportunity to confer with EPA. We request Nucor contact Jamie Lee, Assistant Regional Counsel, at Lee.Jamie@epa.gov or 214-665-6795 within ten (10) business days to discuss this pending matter.

EPA acknowledges that the COVID-19 pandemic may impact your business. If that is the case, please contact us regarding any specific issues you need to discuss.

Sincerely,



Digitally signed by Seager, Cheryl
DN: cn=Seager, Cheryl,
email=Seager.Cheryl@epa.gov
Date: 2022.01.24 07:53:23 -06'00'

Cheryl T. Seager, Director
Enforcement and
Compliance Assurance Division

Enclosure

cc: Angela Marse, LDEQ (angela.marse@la.gov)

Enclosure

Nucor Steel Louisiana LLC

Notification of Violation and Opportunity to Confer

Type of Violation	CAA/LAC	Pollutant	Source	Period	Quantity (tpy)		
					Permitted	Emitted	Exceedance
Unauthorized emissions	40 C.F.R. § 63.6(e)(1)(i) L.A.C. 33:III.501.C.2	H ₂ S	Entire Facility	2017	-	24.25	24.25
Unauthorized emissions	40 C.F.R. § 63.6(c)(1)(i) L.A.C. 33:III.501.C.2	H ₂ S	Entire Facility	2018	-	35.27	35.27
Unauthorized emissions	40 C.F.R. § 63.6(e)(1)(i) L.A.C. 33:III.501.C.2	H ₂ S	Entire Facility	2019	0.11	27.76	27.65
Unauthorized emissions	40 C.F.R. § 63.6(c)(1)(i) L.A.C. 33:III.501.C.2	H ₂ S	Entire Facility	2020	9.77	12.67	2.90
Unauthorized emissions	40 C.F.R. § 63.6(e)(1)(i) L.A.C. 33:III.501.C.2	H ₂ SO ₄	DRI Unit 1 Process Heater	2017	-	3.21	3.21
Unauthorized emissions	40 C.F.R. § 63.6(c)(1)(i) L.A.C. 33:III.501.C.2	H ₂ SO ₄	DRI Unit 1 Process Heater	2018	-	7.98	7.98
Unauthorized emissions	40 C.F.R. § 63.6(c)(1)(i) L.A.C. 33:III.501.C.2	H ₂ SO ₄	DRI Unit 1 Process Heater	2019	-	3.50	3.50
Unauthorized emissions	40 C.F.R. § 63.6(e)(1)(i) L.A.C. 33:III.501.C.2	H ₂ SO ₄	DRI Unit 1 Process Heater	2020	4.70	5.19	0.49
Permit limit exceedance	40 C.F.R. § 63.6(c)(1)(i) L.A.C. 33:III.501.C.4	SO ₂	DRI Unit 1 Process Heater	2018	7.50	16.59	9.09
Permit limit exceedance	40 C.F.R. § 63.6(e)(1)(i) L.A.C. 33:III.501.C.4	SO ₂	DRI Unit 1 Process Heater	2020	9.76	10.79	1.03

Message

From: Russel Honore' [(b) (6)]@gmail.com]
Sent: 7/18/2022 7:33:06 PM
To: Nance, Earthea [Nance.Earthea@epa.gov]; Vaughn, Gloria [Vaughn.Gloria@epa.gov]
Subject: Fwd: Hot Poisoned Water

fyi

----- Forwarded message -----

From: L YC <[(b) (6)]@gmail.com>
Date: Mon, Jul 18, 2022 at 1:47 PM
Subject: Fwd: Hot Poisoned Water
To: Russel Honore' <[(b) (6)]@gmail.com>, nicolas holm <[(b) (6)]@ouutu.com>

FYI

----- Forwarded message -----

From: Michael Tritico <[(b) (6)]@yahoo.com>
Date: Mon, Jul 18, 2022 at 1:34 PM
Subject: Hot Poisoned Water
To: James Hiatt <james@labucketbrigade.org>, Naomi Yoder <naomi@healthygulf.org>, Raleigh Hoke <raleigh@healthygulf.org>, Jack Sweeney <jack@labucketbrigade.org>, MSW Cynthia P. Robertson <cindy@micah68mission.org>

Below is a rough first draft of what I hope to expand and deliver as comments in person at the LDEQ Public Hearing July 28, 6 P.M. at the Westlake City Council Chambers. I would hope that some of you would see that this is an important situation. Rhetorical testimonies make no difference to LDEQ. SOMETIMES fact-based testimonies force them to do something useful.

RESTORE

P.O. Box 233

Longville, LA 70652

(337)-(b) (6)

[(b) (6)]@yahoo.com

xx/xx/xxxx

LDEQ Public Participation Group
P.O. Box 4313
Baton Rouge, LA 70821-4313

Re: AI Number 226602 Permit Number LA0127532 and Activity Number PER20210003 Louisiana Integrated Polyethylene Joint Venture, LLC

Draft Water Discharge Permit and the Associated Environmental Assessment Statement

Dear Public Participation Group:

I have reviewed several relevant documents in EDMS, Numbers: 13308138 (177 pages), 13206067 (15 pages), 10981526 (4 pages), 11422056 (30 pages), 12885916 (7 pages), and 12540042 (316 pages.) I did NOT go back and review the underlying SASOL, Lyondell, and Basell documents

although undoubtedly those records would have helped clarify what is happening and what could happen in the aftermath of the shifts in responsibilities underway.

Although this proposed permit covers 4 outfalls into Bayou Verdine and 2 into the Calcasieu River, I focused my reviews on the ones going into the river by Nalmar Landing. That is a very narrow part of the Calcasieu River just downstream from Lake Charles.

In previous proceedings I have pointed out that the hot water coming from that SASOL discharge creates a thermal curtain which cooks aquatic biota eggs, larvae, and juveniles that are passively carried into the hot zone. Furthermore the Outfall O81 and C81 thermal barrier either kills adult fish, crabs, and shrimp that are trying to migrate downstream or upstream to fulfill their life cycles or it blocks them - turns them around in final frustration of their instincts.

Despite my efforts to get LDEQ to investigate and address that serious environmental quality issue, now you are proposing to allow the problem to continue unmitigated. Apparently you have not even checked out the situation by simply sending a sampling team to do temperature profiling of the river.

This is a perfect example of the false promise to the public that LDEQ embodies.

Not having any limit on how hot the discharges from the outfalls can be is ridiculous. Even more absurd is the malfeasant charade included in the draft permit materials: "Mixing Zone Calculations" on PDF Pages 149 and 150 of EDMS Document Number 13308138. One of the factors in the formula is T_a , ambient temperature of the receiving stream, given as 95 degrees Fahrenheit year around! Applying that factor LDEQ calculates the allowable temperature of the effluent to be 210.98 degrees Fahrenheit! In other words, if there is not 212 degree boiling water flushing into the Calcasieu River at the City Docks, LDEQ blesses Louisiana Polyethylene Joint Venture, LLC and says "go to it!"

Contained in that 5 million gallons a day of hot water are almost a ton of toxic synthetic molecules a year, some of which are the same ones which led to Seafood Consumption Advisories that are still in existence. There are also many tons of eutrophication-inducing molecules, which not only distort the estuarine and riverine ecosystems but add to the "Dead Zone" problem that exists off the Louisiana to Texas coasts.

Sincerely,

Michael Tritico, Biologist and President of RESTORE

Restore Explicit Symmetry To Our Ravaged Earth

--

Laura Cox

(b) (6) @gmail.com

512-(b) (6)

--

Best Regards,

Russel L. Honore'

LTG, U.S. Army (Retired)

See/Smell Something, Say Something
Do Something, Take a picture. Call 911

www.generalhonore.com

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 9/2/2022 6:49:19 PM
To: Dwyer, Stacey [Dwyer.Stacey@epa.gov]
Subject: Re: Avenue for complaint re EPA staff?

Got it.

Helena Wooden-Aguilar
Acting Deputy Regional Administrator, Region 6
(Arkansas, Louisiana, Oklahoma, New Mexico, Texas & 66 Tribal Nations)
US Environmental Protection Agency
202-564-0792 (Work)

Ex. 6 Personal Privacy (PP)

 (Cell)
wooden-aguilar.helena@epa.gov

On Sep 2, 2022, at 2:46 PM, Dwyer, Stacey <Dwyer.Stacey@epa.gov> wrote:

I will call you.

Sent from my iPhone

Begin forwarded message:

From: Anne Rolfes <anne@labucketbrigade.org>
Date: September 2, 2022 at 12:48:54 PM CDT
To: "Dwyer, Stacey" <Dwyer.Stacey@epa.gov>
Cc: Shreyas Vasudevan <shreyas@labucketbrigade.org>
Subject: Avenue for complaint re EPA staff?

Dear Ms. Dwyer,

Thank you so much for all you did to make this week's meeting happen. We are very grateful to you.

In talking with a colleague yesterday, I found that the same EPA staffer seems to be a bottleneck on genuinely addressing issues in the region. We deeply appreciate Dr. Nance, but worry about an intransigent staffer.

Is there an avenue for filing an official complaint?
Inspector General? Or...? We don't want to do
anything to bring negative attention to the region, but
we would like to address this issue.

Please let us know if you have any insight, and deep
gratitude for all of your hard work and dedication to
our region.

Anne

Anne Rolfes, Director, Louisiana Bucket Brigade, (504) 452-4909

Message

From: Thompson, Steve [thompson.steve@epa.gov]
Sent: 10/26/2022 1:18:55 PM
To: Terrell, Kimberly A [kterrell1@tulane.edu]; Robinson, Jeffrey [Robinson.Jeffrey@epa.gov]
CC: Jordan, Lisa W [lwjordan@tulane.edu]; Nance, Earthea [Nance.Earthea@epa.gov]; [REDACTED]
[REDACTED] Wayne Frank [REDACTED]
Subject: RE: FLIR Report

Thank you Dr. Terrell,
We had not previously received this report. I have asked my team to review.

Steve

From: Terrell, Kimberly A <kterrell1@tulane.edu>
Sent: Tuesday, October 25, 2022 4:17 PM
To: Robinson, Jeffrey <Robinson.Jeffrey@epa.gov>; Thompson, Steve <thompson.steve@epa.gov>
Cc: Jordan, Lisa W <lwjordan@tulane.edu>; Nance, Earthea <Nance.Earthea@epa.gov>;
[REDACTED]; [REDACTED]; Wayne Frank <[REDACTED]>
Subject: FLIR Report

Dear Mr. Thompson and Mr. Robinson,

Attached is the report from Mr. Doty on issues identified in southwest LA using FLIR imaging. Please see pages 5-6 for the relevant information for Sasol. Also please see Mr. Doty's email to LDEQ below. As far as we know, LDEQ still has not responded or taken any follow up action.

As Mr. Robinson indicated, EPA's request to Sasol for testing and information was related to rulemaking (see [here](#)). Can Region 6 send us the documents received from Sasol in response to this request, or do we need to submit a FOIA?

Thank you for your time.

Warmly,

Kim

Kimberly Terrell, Ph.D.
Director of Community Engagement
Staff Scientist
Tulane Environmental Law Clinic
6329 Freret St, Suite 130
New Orleans, LA 70118
504-865-5787
she/hers

From: James Doty <tchdconsultingllc@gmail.com>
Sent: Tuesday, October 4, 2022 2:04 PM
To: Chrissie Gubancsik <Chrissie.Gubancsik@la.gov>
Cc: Ethan Buckner <ebuckner@earthworksaction.org>; Rebekah Staub <rstaub@earthworksaction.org>; Chrystal Beasley <cbeasley@earthworksaction.org>; Kaitlyn Joshua <kjoshua@earthworksaction.org>; Roddy Hughes <roddy.hughes@sierraclub.org>; Courtney Naquin <courtney.naquin@sierraclub.org>; Naomi Yoder <naomi@healthygulf.org>; dustin@healthygulf.org; roishetta@healthygulf.org; James Hiatt

<james@labucketbrigade.org>; Oren Jacoby <oren@storyville.org>; jon@oceans8films.com; nance.earthea@epa.gov; deqoec@la.gov; BRIAN.TUSA@la.gov; angela.marse@la.gov; officesec@la.gov; [REDACTED] Sam Jinishian <sam@storyville.org>; [REDACTED]; Terrell, Kimberly A <kterrell1@tulane.edu>

Subject: Re: Fwd:

External Sender. Be aware of links, attachments and requests.

Ms. Gubancsik -

I hope that you are well.

It has now been more than 6-weeks since the LDEQ received optical gas imaging monitoring data described in the *Lake Charles, Louisiana and Port Arthur, Texas Area OGI Monitoring Project, Observations and Findings, June 20 - 23, 2022*, document provided on August 15. All relevant documentation was provided via email and in the hardcopy narratives and electric files that were received by you via USPS.

You were contacted and then responded to me on August 16 at 9:04 AM stating that you were "..... currently working with our various stakeholders to formulate a response for you. If you have any questions in the meantime, please feel free to contact me at your convenience."

I have not heard from you and/or the LDEQ since you sent me that August 16 communication. This is a bit troubling considering the real-time field assessments documented significant industrial and hydrocarbon emissions being continuously released in the Lake Charles area without regard to human health, climate change, site operations and maintenance, and permit representations.

In the meantime, as the documented findings have been more thoroughly processed and studied, it has been noted that the observations previously attributed to Commonwealth LNG were actually emitted by the Venture Global - Calcasieu Pass LNG facility. Consequently, the *Lake Charles, Louisiana and Port Arthur, Texas Area OGI Monitoring Project, Observations and Findings, June 20 - 23, 2022*, document was revised on September 29 to reflect this update. Please refer to the enclosed document.

In the meantime, affected parties are anxious to hear about LDEQ activities and responses related to the June 2022 findings including but not limited to those in close proximity to environmental justice areas, thus I am contacting you again as previously suggested.

I look forward to coordinating with you on these important matters in the near future.

Thanks!

On Tue, Aug 16, 2022 at 9:04 AM Chrissie Gubancsik <Chrissie.Gubancsik@la.gov> wrote:

Mr. Doty-

Thank you for sending this information. I am currently working with our various stakeholders to formulate a response for you. If you have any questions in the meantime, please feel free to contact me at your convenience.

Chrissie Gubancsik

CHRISSIE GUBANCSIK

Regional Manager, Southwest Regional Office
Louisiana Department of Environmental Quality
Phone: 337.491.2756
Fax: 337.491.2682



From: James Doty <tchdconsultingllc@gmail.com>
Sent: Monday, August 15, 2022 11:25 PM
To: _DEQ-SWROAdmin <_DEQ-SWROAdmin@LA.GOV>
Cc: Ethan Buckner <ebuckner@earthworksaction.org>; Rebekah Staub <rstaub@earthworksaction.org>; Chrystal Beasley <cbeasley@earthworksaction.org>; Kaitlyn Joshua <kjoshua@earthworksaction.org>; Roddy Hughes <roddy.hughes@sierraclub.org>; Courtney Naquin <courtney.naquin@sierraclub.org>; naomi@healthygulf.org; dustin@healthygulf.org; roishetta@healthygulf.org; james@labucketbrigade.org; Oren Jacoby <oren@storyville.org>; jon@oceans8films.com; nance.earthea@epa.gov; _DEQ-Office of Env Compliance <DEQOEC@LA.GOV>; Brian Tusa <Brian.Tusa@LA.GOV>; Angela Marse <Angela.Marse@LA.GOV>; _DEQ-Office of the Secretary <OFFICESEC@LA.GOV>; [REDACTED]; Sam Jinishian <sam@storyville.org>; [REDACTED]
Subject: Fwd:

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

Ms. Gubancsik –

I hope that this communication finds you well.

I am writing to you on behalf of my client, Earthworks, regarding findings and observations documented on the recent Lake Charles, Louisiana and Port Arthur, Texas Area Optical Gas Imaging (OGI) Monitoring Project that was in part conducted in the Lake Charles, Louisiana area from June 20 – 21, 2022. As you may know, Earthworks is a non-profit organization that stands for clean air, water, and land, healthy communities, and corporate accountability. They work for solutions that protect both the Earth's resources and its communities.

Earthworks is a non-governmental organization (NGO) that works to expose the health, environmental, economic, social, and cultural impacts of energy extraction through work informed by sound science, thus they reached out to me,

Tim Doty, President of TCHD Consulting LLC (TCHD) in Driftwood, Texas. TCHD is a company that specializes in technical, environmental, safety, and thermography solutions for a variety of clients in the United States, Canada, and Europe.

Emissions that are invisible to the human eye were made visible by using a Teledyne FLIR GF320 OGI camera that detects hydrocarbon in the 3.2 – 3.4 micrometer range, and thus Lake Charles area air emission sources were visually identified on this most recent ambient air environmental project. Obviously, the LDEQ feels comfortable with using this remote-sensing technology, as it is approved and currently used by the EPA and other regulatory agencies around the country and because the LDEQ itself currently owns multiple OGI cameras equivalent to the one used during this project. OGI surveys were conducted on land and focused on identifying emissions sources and characterizing potential impacts for communities that are near and adjacent to these industrial sites including some potential environmental justice areas.

I visited many sites in Cameron Parish and Calcasieu Parish and documented excessive emissions from ten different facilities in the Lake Charles area including but not limited to Cheniere – Sabine Pass LNG, Venture Global – Calcasieu Pass LNG, Sempa – Cameron LNG, Commonwealth LNG, Louisiana Pigment Company, Westlake Chemical – Lake Charles Polymer Plant, Sasol – Lake Charles Chemical Complex, Citgo – Lake Charles Manufacturing Complex, Firestone Polymers, and Phillips 66 – Lake Charles Manufacturing Complex. Physical locations of these complaints are included on the embedded global positioning coordinates in the videos and/or on the location descriptors on the entry slides on each provided video.

Emission sources were varied and included but were not limited to flares, vent pipes, exhaust stacks, and storage tanks. Observations and findings were documented in 21 OGI videos that are being provided to the LDEQ so that investigations can be conducted. Emissions were excessive in the Lake Charles area, as described in the *Lake Charles, Louisiana and Port Arthur, Texas Area OGI Monitoring Project, Observations and Findings, June 20 - 23, 2022*, document that is also being provided. And finally, I am certifying that I personally collected the documentation associated with these air complaints.

Emissions were plentiful and were not difficult to detect even adjacent to residential areas. It is interesting to note that after a bit of research on nearby ambient air monitoring stations in the Lake Charles area only two are in close vicinity of the heavy industrial areas. The LDEQ Westlake, Louisiana site that is located at 2646 John Stine Road was established on September 28, 1992, and characterizes sulfur dioxide, particulate matter equal to or less than 2.5 microns, oxides of nitrogen, and volatile organic compounds by triggered canister. This monitoring station seems to be in an ineffective location for monitoring many nearby industries particularly considering the predominant southerly wind flow path is physically blocked by trees per the online picture. Moreover, the Lake Charles – Lighthouse Lane air monitoring site that was established on July 10, 2002, and collects event-triggered canister samples is even located in a worse spot as the online pictures show that the wind flow is blocked from the north, east, and south. How does the LDEQ conclude that it is collecting representative downwind industrial samples when wind flow is physically blocked per its own documentation?

Among the big emitters in the Lake Charles area were four liquid natural gas (LNG) processing facilities led by the Cheniere – Sabine Pass LNG who was emitting a tremendous quantity of emissions from at least 30 exhaust stacks that were actively filling the horizon with uncombusted hydrocarbon. Excessive exhaust stack emissions were a common theme on this project and included the Louisiana Pigment Company's long streaming plume that was visual to the bare eye. Its magnitude was made even more visible in the OGI high-sensitivity mode as it was heading toward nearby residential areas. Excessive exhaust stack emissions were also documented at the Firestone Polymers and Westlake Chemical – Lake Charles Polymer Plant facilities.

The Lake Charles area also had several poorly combusting flares that were documented by this project. One of the three Westlake Chemical – Lake Charles Polymer Plant's flares was not combusting efficiently per its OGI profile that

was documented on the morning of June 21. It was releasing excess emissions from a flare tip that did not appear to have a hot combustion zone which is indicative of a poorly functioning combustion device that does not meet permit representations and manufacturer design expectations. Another poorly combusting flare was also identified at the Sasol – Lake Charles Complex early on the morning of June 21.

And finally, the Citgo – Lake Charles Manufacturing Complex was also a consistent source of excessive emissions, as it had several vent and exhaust stacks that were steadily releasing significant hydrocarbon, along with a poorly combusting steam-assisted vertical flare stack that was on-site. Additional excess hydrocarbon emissions were also documented being released from multiple Citgo storage tanks and from some five storage tanks at the Phillips 66 – Lake Charles Manufacturing Complex. Emissions from these sources were not typical of the source types and likely exceeded permit representations and are indicative of poorly maintained infrastructure.

As a result of documented findings, it is recommended that the LDEQ conduct mobile monitoring activities to characterize and measure downwind and airshed pollutants in an effort to minimize emissions and to characterize impacts to local communities. I look forward to collaborating with you and the LDEQ in resolving these significant industrial and hydrocarbon emissions that are being continuously released in the Lake Charles area without regard to human health, climate change, site operations and maintenance, and permit representations. In the meantime, please help these local communities out by providing environmental assistance to areas that currently need support.

Hardcopies of the enclosed documents and an SD card with unedited OGI videos, digital photos, and YouTube-posted edited videos have been mailed to you.

Please feel free to contact me directly regarding these matters and any questions that you may have, as I am requesting follow-up on inspector findings.

Technical Background

TCHD Consulting LLC is located in Driftwood, Texas and provides technical, environmental, safety, and thermography consulting services to a variety of customers in the United States, Canada, and Europe. Mr. Tim Doty worked for the Texas Commission on Environmental Quality (TCEQ) for +28 years and served as the Agency's mobile air monitoring manager and technical expert that included management of up to 20 staff members for 17 years. He performed and managed ambient air monitoring and environmental assessments that were conducted both inside and outside of many hundreds of industrial facilities, oil and natural gas sites, and landfills that included EPA interaction and expert witness testimony. He also managed the TCEQ's Mobile Response Team and all the Agency's emergency response assets for two years and has planned/managed/participated on many manmade and natural disaster responses including but not limited to: Helotes Compost Fire, Corpus Christi Benzene Seep, Hurricane Katrina, Hurricane Rita, Hurricane Ike, Lubbock Dump Fire, 2011 Super Bowl, Bastrop Fires, Wimberley Floods, Magnablend Industrial Explosion, Hurricane Harvey, and the COVID-19 Pandemic.

Mr. Doty is a certified Infrared Training Center Level III thermographer that provided thermography and OGI instruction to some +150 TCEQ staff members after helping to establish OGI field uses and policies within the TCEQ from 2005 - 2018. He also served as a technical advisor to the TCEQ Director of Compliance and Enforcement. He now provides technical, air monitoring, environmental assessments, and OGI and general thermography consulting services, including instruction, to both students and relevant parties including but not limited to those associated with industry, oil and natural gas, environmental causes, safety, the public interest, and the media.

Sincerely,

Tim Doty

<https://youtu.be/ORpPV6JOQow>
<https://youtu.be/Zc5M30usXss>
<https://youtu.be/qSaMieGUn-U>
<https://youtu.be/PUmkS3LZWGE>
<https://youtu.be/ypS5y3IGVLM>
<https://youtu.be/qv2wXFV5ses>
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<https://youtu.be/oYSsMOtHZgw>
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LC & PA OGI Project Observations & Findings (081522).pdf

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Tim Doty

TCHD Consulting, LLC

Owner/Manager

ITC Level III Thermographer

512-644-4830

--

Tim Doty

TCHD Consulting, LLC

Owner/Manager

ITC Level III Thermographer

512-644-4830



TULANE LAW SCHOOL

TULANE ENVIRONMENTAL LAW CLINIC

October 27, 2022

Via email to: Title_VI_Complaints@epa.gov

Lilian Dorka, Deputy Assistant Administrator for External Civil Rights
Office of Environmental Justice and External Civil Rights
U.S. Environmental Protection Agency

RE: Supplemental information regarding EPA Complaint Nos. 01R-22-R6, 02R-22-R6, and 04R-22-R6 against the Louisiana Department of Environmental Quality for Lack of Environmental Justice Procedures in its Air Permitting Program and Resulting Discriminatory Decisions

Dear Ms. Dorka:

Stop the Wallace Grain Terminal, Inclusive Louisiana, RISE St. James, and the Louisiana Bucket Brigade (collectively, "Complainants"), through undersigned counsel, offer the following information to supplement their Title VI complaint (04R-22-R6) and offer additional recommendations in response to EPA's October 12, 2022, Letter of Concern to the Louisiana Department of Environmental Quality (LDEQ) and Louisiana Department of Health (LDH).

We appreciate the October 20 meeting EPA arranged with us to explain the Informal Resolution Agreement (IRA) process and next steps. In accordance with EPA's short timeline as described to us, and with the goal of including the complainants' perspective to inform the IRA process and beyond, we offer additional information and requests for specific provisions to be included in an EPA-LDEQ agreement and/or EPA findings beyond what was included in your Letter of Concern.

In addition to corridor-wide systemic issues, as discussed on our October 20, 2022, call and as raised in our complaint, the LDEQ's recent and pending permitting decisions for the Greenfield Grain Terminal (St. John the Baptist Parish) and the Nucor Steel facility (St. James Parish), respectively, reflect discriminatory practices that have disparate adverse effects on Black communities in Louisiana's Industrial Corridor. Below we include recommendations to address systemic and project-specific issues related to environmental justice.

We request that the following be included in an Informal Resolution Agreement (IRA) or voluntary compliance agreement with LDEQ:

- A. Regarding all air permits for facilities affecting residents of the Industrial Corridor, including St. James and St. John the Baptist parishes, LDEQ must condition any decision to issue or renew a permit on avoiding or mitigating adverse impacts from the facility's

Tulane Environmental Law Clinic

6329 Freret St., Ste. 130, New Orleans, LA 70118-6248 tel/ 504.865.5789 fax 504.862.8721
<https://law.tulane.edu/clinics/environmental>

ED_015285_00000325-00001

emissions, consistent with Title VI of the Civil Rights Act. This requirement is above and beyond LDEQ's responsibilities under the Clean Air Act.

- i. For existing facilities, if there are no mitigation measures LDEQ can take, whether within or outside the permitting program, that can eliminate the disparate impacts, and there is no legally sufficient justification for the disparate impacts or less discriminatory alternatives available, LDEQ will deny the permit. Mitigation measures include air sampling and/or monitoring conducted in conjunction with efforts to reduce residential exposures; more detailed/timely public reporting of emissions, upsets, and accidental releases; additional enforcement; and other measures that EPA has identified.¹
 - ii. For new facilities, if there are no measures LDEQ can take, whether within or outside the permitting program, that can eliminate the disparate impacts, and there is no legally sufficient justification for the disparate impacts, LDEQ will deny the permit.
- B. LDEQ will reopen the Minor Source air permit for Greenfield's proposed 56-silo Grain Terminal to:
- i. Conduct robust air dispersion modelling (i.e. accounting for all industrial sources) to predict ambient concentrations of Coarse and Fine Particulate Matter (PM₁₀ and PM_{2.5}, respectively) from the proposed Greenfield facility and nearby industrial sources, including Noranda Alumina, Rain CII Carbon, and Louisiana Sugar Refining, and
 - ii. Allow for an opportunity for public hearing and public comment.
- C. LDEQ will conduct a targeted assessment of acidic and other corrosive pollutants from all industrial sources impacting communities around the Nucor facility in St. James Parish, including but not limited to the permitted emissions from Nucor and the Mosaic Uncle Sam facility.²
- D. LDEQ will postpone any permitting decision, including the pending Nucor draft permit, that could increase emissions of corrosive/acidic pollutants near Romeville until the targeted assessment is completed and publicly available.
- E. LDEQ will update its Ambient Air Standards (AAS) to ensure that they protect against adverse health outcomes from chronic exposure and do not exceed the corresponding

¹ See EPA, Interim Environmental Justice and Civil Rights in Permitting Frequently Asked Questions 14-15 (Aug. 2022), <https://www.epa.gov/system/files/documents/2022-08/EJ%20and%20CR%20in%20PERMITTING%20FAQs%20508%20compliant.pdf>.

² LDEQ AI #170062. Complainants note that this requested analysis is not to be substituted for any cumulative impacts analysis recommended by EPA in its Letter of Concern, but instead is in addition to those, nor is it intended to limit EPA's suggestions of additional cumulative impacts analyses.

EPA Reference Concentrations (RfC). LDEQ will begin this process with hydrogen sulfide and mercury because these pollutants have AAS that substantially exceed the corresponding RfC, and both pollutants impact historic Black communities in St. James and St. John the Baptist parishes.

- F. LDEQ will update its AAS whenever EPA updates a corresponding RfC or creates a new RfC.
- G. LDEQ will develop and implement a policy that provides for public notice for all minor sources emitting pollutants that exceed significance thresholds.
- H. LDEQ will develop and implement a standardized, written Environmental Justice policy to direct all air permitting decisions that ensures residents are not exposed to cumulative cancer risk over one-in-one million and a respiratory hazard above 1.0. This policy will be subject to approval by EPA's OEJCER.
- I. All LDEQ staff who interact with media and/or community advocacy groups shall undergo training as recommended by EPA to improve the degree to which its public statements are accurate and supported by the best available science. These trainings must be designed to help LDEQ avoid making statements that downplay risks, create confusion or misunderstanding, or come across as indifferent or antagonistic towards communities.

Below is additional information regarding certain of the above requests:

- B. LDEQ will reopen the minor source air permit for Greenfield's proposed grain terminal in Wallace (St. John the Baptist Parish) to:**
 - i. Conduct robust air dispersion modelling (accounting for all industrial sources) to predict ambient concentrations of Coarse and Fine Particulate Matter (PM₁₀ and PM_{2.5}, respectively) from the proposed Greenfield facility and nearby industrial sources, including Noranda Alumina, Rain CII Carbon, and Louisiana Sugar Refining.³**
 - ii. Allow for an opportunity for public hearing and public comment.**

We request that the minor source permit (AI#222696) previously granted by LDEQ for the Greenfield Grain Terminal be immediately⁴ reopened to allow for an opportunity for public notice and public comment. This action is justified given the lack of prior public notice, the existing impacts from three major sources of PM located within two miles of the proposed site,⁵ and the proximity of historic Black communities and important cultural resources.

³ LDEQ AI #170062.

⁴ To ensure maximum public participation, LDEQ must not schedule this meeting within 7 days of a major holiday.

⁵ Atlantic Alumina (formerly Noranda Alumina; AI# 1388), Rain CII Carbon (AI# 32804), and Louisiana Sugar Refining (AI #165286).

Residents of these communities proactively sought to participate in environmental decision-making for Greenfield's proposed terminal, but were prevented from doing so by LDEQ procedures, as described below.

LDEQ classified this proposed 56-silo grain terminal as a minor source, and therefore chose not to require public notice.⁶ Neighboring communities had no opportunity to comment on the project. Indeed, the neighboring communities did not learn about the project details until *after* LDEQ had granted the Greenfield Grain Terminal's permit. Some residents had heard rumors about a proposed grain terminal and had proactively sought information about it,⁷ but, without knowing the name of the permit applicant, there was no way for residents to obtain a copy of Greenfield's permit application, let alone submit public comments about it. After receiving a call from a Wallace resident on July 29, 2020, Dr. Kimberly Terrell of Tulane's Environmental Law Clinic searched LDEQ's database for permit applications for grain terminals in St. John Parish. At that time, Greenfield's permit application was pending (it was determined administratively complete by LDEQ in May 2020), *but the permit had not yet been issued*. However, Dr. Terrell was unable to locate the permit application because the name of the applicant did not include "grain," which she used as the search term since the corporate name for the facility remained unknown. Rather, Greenfield is listed in LDEQ's database as "Greenfield Louisiana LLC - Greenfield Louisiana Terminal." Additionally, after first finding out about the project, residents of Wallace attempted – unsuccessfully – to get information and communicate concerns with a parish councilmember. Thus, residents made multiple proactive attempts to influence the LDEQ decision to permit Greenfield to construct one of the world's largest grain terminals adjacent to an historic Black community housing important cultural resources.

The site of Greenfield's proposed terminal is located within St. John the Baptist Parish, where, as stated in the Letter of Concern, Black residents are facing disparate adverse air pollutant impacts.⁸ As well as being located in the broadly overburdened Industrial Corridor/Cancer Alley, the local community is an environmental justice community. The neighborhoods closest to the site are 93% People of Color (predominantly Black).⁹ The proposed site is located less than one mile from the Whitney Plantation, the only former plantation in Louisiana focused primarily on telling the stories of enslaved people. Evidence

⁶ With limited exceptions, LDEQ regulations do not mandate public notice and comment period for facilities it classifies as "minor."

⁷ Phone call from Wallace Resident to Kimberly Terrell (Tulane Environmental Law Clinic) seeking information about a proposed grain elevator in Wallace (July 29, 2020).

⁸ Environmental Protection Agency, Letter of Concern regarding EPA Title VI Complaint Nos. 01R-22-R6, 02R-22-R6, and 04R-22-R6 (Oct. 12, 2022), *available at* <https://www.epa.gov/system/files/documents/2022-10/2022%2010%2012%20Final%20Letter%20LDEQ%20LDH%2001R-22-R6%2C%2002R-22-R6%2C%2004R-22-R6.pdf>.

⁹ Census blocks 1027, 1028, 1029, 1030, 1031, 1032, and 1033, representing the neighborhoods immediately surrounding the proposed Greenfield grain terminal, from the Veteran's bridge to Whitney Plantation Road, including the Whitney Plantation. 2020 Decennial Census. Accessed Oct 24, 2022, from data.census.gov.

presented to the U.S. Army Corps of Engineers indicates that the Whitney and other, nearby historic sites would suffer a degraded viewshed, noise disruptions, and light pollution, in addition to the impacts of particulate emissions. Yet, LDEQ included no consideration of environmental justice or racial demographics in its permitting decision, and did not conduct an environmental justice analysis.¹⁰

There are already five industrial sources of particulate pollution located within two miles of Greenfield's proposed site, including three major sources.¹¹ Collectively, these sources reported emitting over 500 tons of PM₁₀ in 2021.¹² The largest of these PM sources is Atlantic Alumina (formerly Noranda Alumina, AI# 1388), which sits directly across the river from Greenfield's proposed site and also emits significant amounts of mercury, a persistent, bioaccumulative, toxic pollutant.¹³ Homes and businesses in Wallace regularly have layers of "red dust" from operations at the alumina plant. The permit granted by LDEQ allows the Greenfield facility to add to the existing pollution burden in this historic Black community by emitting 81 tons per year (tpy) of PM₁₀, along with smaller amounts of other pollutants. Exposure to particulate pollution (PM₁₀ and/or PM_{2.5}) is known to cause lung cancer, respiratory disease, and cardiovascular disease.¹⁴ More recently, particulate pollution has been shown to impact the central nervous system and cause cognitive impairment.¹⁵

C. LDEQ will conduct a targeted assessment of acidic and other corrosive pollutants from all industrial sources impacting communities around the Nucor facility in St. James Parish, including but not limited to the permitted emissions from Nucor Steel and the Mosaic Uncle Sam facility.

Nucor (AI# 157847) constructed its facility in 2013 next to Romeville, a predominantly Black community, with no buffer zone.¹⁶ Since Nucor began operating, residents of this fence-line community have begun reporting respiratory problems, skin irritation, and corrosion of their recently-purchased metal property (e.g., roofs, cars, structures, and lawn ornaments). These reports are consistent with adverse impacts from acidic/corrosive pollutants. In 2021,

¹⁰ Greenfield Minor Source Final Permit, available at <https://cdms.deq.louisiana.gov/app/doc/view?doc=12298166> (Document 12298166).

¹¹ Atlantic Alumina (formerly Noranda Alumina; AI# 1388), Rain CII Carbon (AI# 32804), and Louisiana Sugar Refining (AI #165286).

¹² Based on 2021 Emissions Reported to LDEQ for a 2-mile (3,219 m) radius around Greenfield's proposed site (30.043797 -90.663127), accessed using LDEQ's Emissions Reporting and Inventory Center (ERIC) radius search tool, Oct 26, 2022 at <https://business.deq.louisiana.gov/Eric/EricReports/RadiusReportSelector?>. Most of these emissions come from Atlantic Alumina (formerly Noranda), Rain CII Carbon, and Louisiana Sugar Refining.

¹³ EPA RSEI Database. Accessed Oct 27, 2022.

¹⁴ Reviewed in Dockery, et al. Effects of Inhalable Particles on Respiratory Health of Children. *Am Rev Respir Dis.* 139, 587–594 (1989); see also Hamanaka and Mutlu, Particulate Matter Air Pollution: Effects on the Cardiovascular System. *Front. Endocrinol.* 9 (2018), doi:10.3389/fendo.2018.00680.

¹⁵ Reviewed in Yang, et al., Short-term and long-term exposures to fine particulate matter constituents and health: A systematic review and meta-analysis. *Environ. Pollut.* 247, 874–882 (2019).

¹⁶ Nucor is located on the site that was proposed for the Shintech PVC plant.

industrial facilities located within 3 miles of Romeville reported emitting a combined total of 97 tons of sulfuric acid mist (i.e. battery acid).¹⁷ Given the unusual reports of metal corrosion and corresponding health impacts, along with the obvious sources of corrosive pollutants, we request that EPA require LDEQ to conduct targeted impacts analysis for corrosive and/or acidic pollutants affecting Romeville residents.¹⁸ This analysis should include both health and non-health effects, such as corrosion to metal property.

D. LDEQ will postpone any permitting decision, including the pending Nucor draft permit, that could increase emissions of corrosive/acidic pollutants near Romeville until the targeted assessment is completed and publicly available.

In 2020, after five years of emitting unpermitted sulfuric acid, Nucor was allowed to add sulfuric acid to its air permit *without any public notice or comment opportunity*, only to subsequently exceed that permit limit.¹⁹ Now, Nucor is proposing to massively increase that limit from 5 tons per year to nearly 35 tons per year. Rather than addressing the reported adverse impacts and holding Nucor accountable for its consistent track record of non-compliance, LDEQ has proposed to grant Nucor's permit application (public hearing Oct 27, 2022; comment deadline Nov 21, 2022). Nucor is an egregious example of LDEQ "resolving" issues of non-compliance by modifying permits to achieve compliance through raising permit limits, with no consideration of adverse impacts, let alone disparate impacts. Nucor's proposed permit contains major technical inconsistencies with respect to criteria pollutants²⁰ and would increase allowable emissions of 17 pollutants that are known to be toxic to human health.²¹

E. LDEQ will update its Ambient Air Standards (AAS) to ensure that they protect against adverse health outcomes from chronic exposure and do not exceed the corresponding EPA Reference Concentrations (RfC). LDEQ will begin this process with hydrogen sulfide and mercury because these pollutants have AAS that substantially exceed the corresponding RfC, and both pollutants impact historic Black communities in St. James and St. John the Baptist Parishes, and

F. LDEQ will update its AAS whenever EPA updates a corresponding RfC or creates a new RfC.

¹⁷ Including Mosaic Uncle Sam (93 tons, AI #2532), Nucor Steel (4 tons, AI# 157847), and Occidental (< 1 ton, AI# 3544).

¹⁸ This analysis is in addition to, and not a substitute for, any cumulative impacts analysis recommended by EPA in its Letter of Concern, nor is it intended to limit EPA's suggestions of additional cumulative impacts analyses.

¹⁹ Nucor Steel Air Permit 3086-V7, Jan 2020. EDMS #12050197. Available at <https://edms.deq.louisiana.gov/app/doc/view?doc=12050197>

²⁰ Nucor's permit application avoids air dispersion modeling for PM_{2.5} and NO_x (pollutants for which Nucor's previous modeling predicted substantial exceedances of the NAAQS) by comparing baseline emissions to projected actual emissions, rather than the potential to emit. This approach is inconsistent with how other criteria pollutants are treated in the permit application.

²¹ Xylene, lead, sulfuric acid, acetaldehyde, naphthalene, acrolein, hydrogen sulfide, arsenic, dichlorobenzene, cobalt, manganese, beryllium, selenium, toluene, benzene, mercury, and copper.

In its permitting decisions, LDEQ improperly relies on compliance with Ambient Air Standards (AAS) to ensure compliance with Title VI and its public trustee duty under the Louisiana constitution. This approach is not supported by the best available science because many of the Louisiana AAS (which limit toxic air pollutants) far exceed the corresponding EPA Reference Concentration (RfC).²² It is unclear whether LDEQ has *ever* updated the Louisiana AAS since they were established in the early 1990s. In addition, many of the Louisiana AAS are based solely on an 8-hr average, and LDEQ has indicated that these 8-hr AAS are meant to protect against acute exposures only.²³ Thus, for many toxic air pollutants, there are no standards in place to protect against chronic exposure. It is therefore impossible for LDEQ to fully protect against adverse health effects by relying on compliance with AAS.

We request that LDEQ update its standards to protect against chronic exposure, beginning with hydrogen sulfide and mercury. These pollutants impact communities of Color throughout the Industrial Corridor, including in St. James Parish, where Nucor is proposing to increase emissions of both pollutants. While EPA Reference Concentrations exist for hydrogen sulfide and mercury, the current Louisiana AAS vastly exceed these values. The Louisiana AAS for hydrogen sulfide is 330 $\mu\text{g}/\text{m}^3$, based on an 8-hr average concentration, while the EPA RfC (which accounts for chronic exposure) is only 2 $\mu\text{g}/\text{m}^3$. Similarly, the Louisiana AAS for mercury is 1.19 $\mu\text{g}/\text{m}^3$ and is based on an 8-hr average, while the corresponding RfC is only 0.3 $\mu\text{g}/\text{m}^3$. While LDEQ contends that 8-hr AAS are based on acute exposures cannot be compared with RfCs, LDEQ does not provide an additional AAS to protect against chronic exposures.

G. LDEQ will develop and implement a policy that provides for public notice for all minor sources emitting pollutants that exceed significance thresholds.²⁴

We request that EPA require LDEQ to develop and implement a policy that provides for public notice for all minor sources over a de minimus threshold. Currently, with a few limited exceptions, Louisiana requires public notice only for major sources and conducts this notice through a webpage with a link to sign up to receive notice. However, we request that notice for both major and minor sources be specifically designed as an opt-out mailer, rather than an opt-in online system, to ensure that notice reaches all residents regardless of computer access or technical proficiency.

H. LDEQ will develop and implement a standardized, written Environmental Justice policy to direct all air permitting decisions that ensures residents are not exposed to cumulative cancer risk over one-in one million and a respiratory hazard above 1.0. This policy will be subject to approval by EPA's OEJCER.

²² Louisiana's ambient air standards can be found in Louisiana Administrative Code, Title 33:III, Chapter 51, Subchapter A, §5112. Table 51.2.

²³ LDEQ Response to Public Comment Summary RE Chalmette Refinery Permit 3177-V0. PDF pages 35-36. EDMS Doc # 13054200. Available at <https://edms.deq.louisiana.gov/app/doc/view?doc=13054200>

²⁴ Significance is defined at LAC 33:III.504.K, *available at* <https://deg.louisiana.gov/assets/docs/Air/Asbestos/AsbestosRegulations.pdf> (pgs. 55-56).

EPA's Letter of Concern recommends that LDEQ "develop and implement a process to identify and address potential adverse health and non-health effects (*e.g.*, traffic, odors, noise) of proposed air permitting decisions and the distribution of those effects based on race and/or national origin."²⁵ It is crucial that this recommendation is developed into an actionable framework to be applied for all air permitting actions to protect against future disparate harm resulting from LDEQ's air permitting program. This policy should include – but not be limited to – LDEQ's responsibility to conduct an environmental justice analysis in accordance with its state law duty under the public trust doctrine. We request that this policy have the following components:

- For any major permit action, applicants will conduct (and LDEQ will review) an analysis of the demographics and current pollution burden of the surrounding communities to determine whether the proposed project is located in or will affect an environmental justice community.
- If the project is located in an environmental justice community, then the applicant will conduct a risk assessment for health and non-health impacts, including the cumulative impacts from other nearby plants.
- Strengthened opportunity for public engagement for environmental justice communities.
 - Public hearings should be held at community centers in environmental justice communities and be held during multiple time periods so that working does not preclude the community from attending.
 - The community should receive ample notice of all public hearings and opportunities to comment.
- Buffer zones that require distance between the facility and the property line, creating additional space between the emissions source and the residents nearby.
- Where there is a fence-line community, the permit must require monitoring for all pollutants that EPA has determined are drivers of respiratory hazard and cancer risk.

I. All LDEQ staff who interact with media and/or community advocacy groups shall undergo training as recommended by EPA to improve the degree to which their public statements are accurate and supported by the best available science. These trainings must be designed to help LDEQ avoid making statements that downplay risks, create confusion or misunderstanding, or come across as indifferent or antagonistic towards communities.

In situations of grave concern to Complainants, LDEQ's spokespersons have issued statements that reflect inaccurate or misleading positions about public health and science. For example, in July 2022, Deputy Secretary Denise Bennett made misleading statements to suggest that sulfuric acid mist was not a pollutant of concern for Romeville residents. These

²⁵ Environmental Protection Agency, Letter of Concern regarding EPA Title VI Complaint Nos. 01R-22-R6, 02R-22-R6, and 04R-22-R6 (Oct. 12, 2022), *available at* <https://www.epa.gov/system/files/documents/2022-10/2022%2010%2012%20Final%20Letter%20LDEQ%20LDH%2001R-22-R6%2C%2002R-22-R6%2C%2004R-22-R6.pdf>.

statements came during the sole public information session that LDEQ held in conjunction with a short-term air monitoring project in Romeville Park using its Mobile Air Monitoring Laboratory. Deputy Secretary Bennett indicated that sulfuric acid was unlikely to occur in significant quantities around Romeville, a statement that is directly contradicted by LDEQ's Emissions Inventory, which includes 97 tons of reported sulfuric acid emissions from facilities near Romeville in 2021. Deputy Secretary Bennett also deflected concerns about sulfuric acid emissions from the Nucor facility by saying this would be addressed in the pending permitting proceedings but, as noted, LDEQ's draft permit for Nucor would massively increase the sulfuric acid limit from 5 tons per year to nearly 35 tons per year. After the 5-day Romeville monitoring project, LDEQ staff announced that no exceedances of air standards were detected from the monitoring project, but failed to disclose that it is virtually impossible to detect an exceedance from a 5-day monitoring project. LDEQ staff have made analogous statements in response to other air monitoring projects in Louisiana.

In response to critical situations, LDEQ spokespersons consistently issue boilerplate statements about compliance with, and purported concern for, the agency's responsibilities that inspire no confidence among the public. Given that LDEQ rarely meets with community members, often the only way LDEQ communicates to residents is through these public statements. LDEQ spokespersons should be trained in effective communication, particularly with members of overburdened communities, and should be required to develop all public statements with guidance from the risk coordinator recommended by EPA in its Letter of Concern.

We appreciate EPA's willingness to engage with LDEQ on these issues that have resulted in decades of environmental injustice for Black communities in Louisiana's Cancer Alley. In addition to correcting the wrongs of current permitting decisions with the proposed Formosa and Greenfield facilities, and the existing Nucor and Denka facilities, it is our hope that updated air standards and an updated environmental justice policy will prevent future adverse harm and disparate impact in these long-suffering communities.

Substantially prepared by:

Liza Cowan, Law Student
Zoe Vogel, Law Student
Kimberly Terrell, Ph.D., Staff Scientist

Respectfully submitted by:



Lisa Jordan, Director
Devin Lowell, Supervising Attorney
Tulane Environmental Law Clinic
6329 Freret Street
New Orleans, LA 70118
Phone: 504-865-5789
Email: lwjordan@tulane.edu
Email: dlowell@tulane.edu
Counsel for Complainants

cc: via email

Dr. Earthea Nance
Regional Administrator, Region 6
U.S. Environmental Protection Agency
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scott.ronald@epa.gov

Message

From: Cowan, Elizabeth L [ecowan2@tulane.edu]
Sent: 10/27/2022 9:01:24 PM
To: Title VI Complaints [Title_VI_Complaints@epa.gov]
CC: O'Lone, Mary [OLone.Mary@epa.gov]; Khan, Zahra [Khan.Zahra@epa.gov]; Isales, Daniel [Isales.Daniel@epa.gov]; Hoang, Anhthu [Hoang.Anhthu@epa.gov]; Nance, Earthea [Nance.Earthea@epa.gov]; Anne Rolfes [anne@labucketbrigade.org]; joy@thedesendantsproject.org; Jo Banner [jo@thedesendantsproject.org]; Terrell, Kimberly A [kterrell1@tulane.edu]; Vogel, Zoe C [zvogel@tulane.edu]; Lowell, Devin A [dlowell@tulane.edu]; Jordan, Lisa W [lwjordan@tulane.edu]
Subject: National Urban League letter relating to EPA Complaint No. 04R-22-06
Attachments: Michael S Regan - EPA RE Greenfield Grain Elevator Terminal - REVISED.pdf

Dear Ms. Dorka and EPA attorneys and officials:

We just became aware that the attached letter regarding the Greenfield Grain Terminal was sent by National Urban League President Marc Morial to Administrator Regan last week. The letter requests that EPA investigate "the actions surrounding those who are promoting the development of the Greenfield Grain Elevator Terminal" for civil rights violations.

As we wrote to you this morning, the Greenfield Terminal is yet another example of LDEQ's discriminatory air permitting practices in Louisiana's Industrial Corridor. Like Formosa, the permit has been granted but the facility has not yet been constructed. LDEQ considers the terminal a Minor Source and therefore granted the permit to its operators *without public notice or comment*. The proposed Greenfield facility is within 2 miles of five other industrial sources of particulate pollution.

We reiterate our request that the Informal Resolution agreement with LDEQ include a provision to reopen the air permit to i) conduct a robust air dispersion modelling (accounting for all industrial sources) to predict ambient concentrations of Coarse and Fine Particulate Matter (PM₁₀ and PM_{2.5}, respectively) from the Greenfield facility and nearby industrial sources, including Noranda Alumina, Rain CII Carbon, and Louisiana Sugar Refining; and ii) to allow for an opportunity for public hearing and conduct.

Thank you,

Liza Cowan (*She, Her, Hers*)

J.D. Candidate 2023 | Tulane University Law School
Student Attorney | Tulane Environmental Law Clinic
ecowan2@tulane.edu | (415) 867-0903

Zoe Vogel (*She, Her, Hers*)

J.D. Candidate 2023 | Tulane University Law School
Student Attorney | Tulane Environmental Law Clinic
zvogel@tulane.edu | (952) 378-7422

From: Jordan, Lisa W <lwjordan@tulane.edu>
Sent: Thursday, October 27, 2022 10:51 AM
To: Title_VI_Complaints@epa.gov <Title_VI_Complaints@epa.gov>
Cc: O'Lone, Mary <OLone.Mary@epa.gov>; Khan, Zahra <Khan.Zahra@epa.gov>; Isales, Daniel <Isales.Daniel@epa.gov>; Hoang, Anhthu <Hoang.Anhthu@epa.gov>; Nance, Earthea <Nance.Earthea@epa.gov>; Anne Rolfes <anne@labucketbrigade.org>; Shreyas Vasudevan <shreyas@labucketbrigade.org>; Inclusive Louisiana

<inclusive.louisiana@gmail.com>; joy@thedescendantsproject.org <joy@thedescendantsproject.org>; Jo Banner
<jo@thedescendantsproject.org>; Sharon Lavigne <[REDACTED]>; [REDACTED]
<[REDACTED]>; [REDACTED] <[REDACTED]>; M Felt
<[REDACTED]>; Gail Leboeuf <[REDACTED]>; Terrell, Kimberly A <kterrell1@tulane.edu>; Cowan,
Elizabeth L <ecowan2@tulane.edu>; Vogel, Zoe C <zvogel@tulane.edu>; Lowell, Devin A <dlowell@tulane.edu>
Subject: 04R-22-R6 Complainants' Requests for Title VI resolution

Dear Ms. Dorka and EPA attorneys and officials:

Please receive the attached requests from the complainants on 04R-22-R6 (the "Industrial Corridor" complaint) for provisions we would like to see EPA include in an agreement or other resolution of our Title VI complaint.

We appreciate the very short timeline EPA is on and the tremendous work you put into the Letter of Concern. Given the critical nature of the issues we've raised and the limited opportunity this short timeline has provided us thus far, we hope you can seriously consider our requests.

Thank you.

Lisa Jordan
Director, Tulane Environmental Law Clinic
Clinical Professor of Law
6329 Freret Street
New Orleans, LA 70118
Direct: (504) 314-2481
Office: (504) 865-5789
Fax: (504) 862-8721
Email: lwjordan@tulane.edu

Message

From: Terrell, Kimberly A [kterrell1@tulane.edu]
Sent: 11/14/2022 11:52:22 PM
To: Nance, Earthea [Nance.Earthea@epa.gov]
CC: Shaikh, Taim [Shaikh.Taimur@epa.gov]; Dwyer, Stacey [Dwyer.Stacey@epa.gov]; Peter DeCarlo [pdecarl1@jhu.edu]; Inclusive Louisiana [inclusive.louisiana@epa.gov] Ex: 6 Personal Privacy (PP) Shreyas Vasudevan [shreyas@labucketbrigade.org]; Anne [anne@labucketbrigade.org]
Subject: Air Monitoring in St. James Parish
Attachments: 2022-11-14_Air Quality issues Romeville.pdf

Dear Dr. Nance,

Attached please find a letter from Dr. DeCarlo and me, which details our concerns about air quality in St. James Parish. These concerns are especially timely, given EPA's recent announcement of funding to LDEQ for air monitoring in the Parish. We hope that your office will help ensure that LDEQ measures pollutants of concerns in predicted hotspots using methods that enable comparisons to legal standards.

We understand that the community and their advocates will be reaching out to you separately, and we wholly support their efforts to engage your office on this important issue.

Sincerely,

Kimberly Terrell

Kimberly Terrell, Ph.D.
Director of Community Engagement
Staff Scientist
Tulane Environmental Law Clinic
6329 Freret St, Suite 130
New Orleans, LA 70118
504-865-5787
she/hers

Message

From: Shreyas Vasudevan [shreyas@labucketbrigade.org]
Sent: 12/15/2022 10:06:52 PM
To: Jason Meyers [Jason.Meyers@LA.GOV]
CC: Chuck Brown [Chuck.Brown@la.gov]; Denise.Bennett@la.gov; roger.gingles [roger.gingles@la.gov]; Gregory Langley [Gregory.Langley@la.gov]; Bijan Sharafkhani [Bijan.Sharafkhani@la.gov]; Garcia, David [Garcia.David@epa.gov]; Gonzalez, Iris [Gonzalez.Iris@epa.gov]; Seager, Cheryl [Seager.Cheryl@epa.gov]; Nance, Earthea [Nance.Earthea@epa.gov]; Tejada, Matthew [Tejada.Matthew@epa.gov]; t.watkins@inclusivelouisiana.org; Terrell, Kimberly A [kterrell1@tulane.edu]; Gail Leboeuf [gleboeuf Ex. 6 Personal Privacy (PP)]; Myrtle Felton [ladiefelton Ex. 6 Personal Privacy (PP)]; Barbara Washington [bobbybee Ex. 6 Personal Privacy (PP)]; anne@labucketbrigade.org
Subject: Re: Request to meet with LDEQ regarding St. James Ambient Air Monitoring Project

Hi Jason,

Thank you for your response.

Does DEQ have a list of potential sites for the TLC ambient air monitoring program that can be made available to us? Are there any plans for community engagement with DEQ prior to finalizing the site location(s)? We want to ensure that residential areas facing the highest levels of pollution are being represented, and for that reason we would like the opportunity to provide input before a location is selected. Similarly, we believe it is important for there to be community engagement opportunities prior to finalizing the list of target air pollutants. Meaningful public involvement in these two aspects of the program will be vital in ensuring that the disproportional impacts of air pollution in St. James are not overlooked. Please let us know if this is possible.

Sincerely,
Shreyas Vasudevan

On Wed, Dec 14, 2022 at 9:36 AM Jason Meyers <Jason.Meyers@la.gov> wrote:

Good morning Shreyas, Tiffany, and all,

As you are aware, LDEQ's grant request to operate a Temporary Located Community (TLC) ambient air monitoring site in St. James Parish has been selected by EPA for funding. LDEQ also recognizes that the grant application eluded that the TLC site will be located on the West Bank of the river. However, LDEQ has not yet identified the potential location for the site and does not believe the referenced statement prohibits the placement of the site on the East Bank.

LDEQ staff is currently evaluating potential locations and will select one that will give the best representation of ambient air for the entire area, while considering factors such as utilities, obstructions, security, etc.

Thanks,
Jason Meyers, P.E.
Administrator
Air Planning & Assessment Division

On Dec 14, 2022, at 8:30 AM, Shreyas Vasudevan <shreyas@labucketbrigade.org> wrote:

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

Dear Dr. Brown and LDEQ staff,

I am reaching out to you on behalf of Inclusive Louisiana. We are requesting a meeting with your office, Peter Cazeaux, and other relevant staff assigned to the Ambient Air Monitoring Project in St. James Parish. We are especially concerned seeing that the air monitoring program is planned only for the west bank in St. James, excluding communities in Convent and Romeville on the east bank living near particularly concerning sources of industrial pollution, such as Nucor Steel.

We believe it is extremely important that community input is received for this project from the planning process. We would like to obtain more details on how this project will be carried out, have any concerns addressed, and develop ways to further work with LDEQ to provide St. James residents engagement opportunities throughout the project's course.

Please let us know of your availability to meet, we look forward to hearing from you.

Sincerely,

--

Shreyas Vasudevan
Campaign Researcher
Louisiana Bucket Brigade
Cell: Ex. 6 Personal Privacy (PP)
Work: (504) 484-3433

--

Shreyas Vasudevan
Campaign Researcher
Louisiana Bucket Brigade
Cell: Ex. 6 Personal Privacy (PP)
Work: (504) 484-3433

Message

From: Shreyas Vasudevan [shreyas@labucketbrigade.org]
Sent: 9/1/2022 7:55:54 PM
To: Nance, Earthea [Nance.Earthea@epa.gov]; Dwyer, Stacey [Dwyer.Stacey@epa.gov]; Shaikh, Taimur [Shaikh.Taimur@epa.gov]
CC: Anne Rolfes [anne@labucketbrigade.org]; Terrell, Kimberly A. [kterrell1@tulane.edu]; Gail Leboeuf [gleboeuf@epa.gov] Ex. 6 Personal Privacy (PP); Barbara Washington [bobbybee51@epa.gov] Ex. 6 Personal Privacy (PP); Myrtle Felton [ladiefelton@epa.gov] Ex. 6 Personal Privacy (PP); Inclusive Louisiana [inclusive.louisiana@gmail.com]
Subject: Follow up to Tuesday's meeting, regarding air monitoring in St James
Attachments: Thank You Dr. Nance (EPA Region 6 Office).pdf; Air Monitoring in St. James_EPA follow up letter.pdf; CERD_8.30.22.pdf

Dear Dr. Nance and Region 6 team,

Inclusive Louisiana (inclusive.louisiana@gmail.com) and our whole team would like to thank you all for taking the time to meet with us on Tuesday. You can find our thank you letter and follow up documents attached to this email.

The attachment, titled "Thank You Dr. Nance...", is Inclusive Louisiana's statement to your team following Tuesday's meeting. The second attachment, titled "Air Monitoring in St. James...", contains a summary of the action items determined in our meeting. This letter contains relevant technical details and excerpts of permits provided by Dr. Terrell (kterrell1@tulane.edu) and Tulane Environmental Law Clinic, as well as communication between Inclusive LA and LDEQ about LDEQ's air monitoring, for your reference.

Finally, the attachment titled "CERD_8.30.22" contains the UN Committee on the Elimination of Racial Discrimination's latest report on various issues of racial discrimination in the United States. This report includes findings based on testimony by Inclusive Louisiana and other 'Cancer Alley' community leaders from August 2022. This can be found on **page 10 Section 45 and page 11 Section 46** of this report.

Please reach out to me when ready to arrange a follow up meeting, and for any questions that may arise in the meantime. We look forward to hearing from your team.

From: Eppler, Alexandria
To: Eppler, Alexandria
Subject: FW: Venture Global follow up / briefing
Date: Monday, March 18, 2024 1:35:36 PM

From: Anne Rolfes <anne@labucketbrigade.org>
Sent: Thursday, March 14, 2024 10:00 PM
To: Nance, Earthea <Nance.Earthea@epa.gov>
Cc: Thompson, Steve <thompson.steve@epa.gov>; John Allaire (b) (6) <[\(b\)\(6\)@yahoo.com](mailto:(b)(6)@yahoo.com)>;
Gonzalez, Iris (she/her/hers) <Gonzalez.Iris@epa.gov>
Subject: Fwd: Venture Global follow up / briefing

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Hello,

Is it possible to get a reply to this? See email that I sent about a month ago. Thank you!

Anne

Anne Rolfes, Director, Louisiana Bucket Brigade, (504) 452-4909

----- Forwarded message -----

From: Anne Rolfes <anne@labucketbrigade.org>
Date: Wed, Mar 6, 2024 at 7:36 AM
Subject: Fwd: Venture Global follow up / briefing
To: <nance.earthea@epa.gov>, Thompson, Steve <thompson.steve@epa.gov>
Cc: John Allaire <(b) (6)@yahoo.com>

Hello,

Re sending this. Hope you are all well.

Anne Rolfes, Director, Louisiana Bucket Brigade, (504) 452-4909

----- Forwarded message -----

From: **Anne Rolfes** <anne@labucketbrigade.org>

Date: Thu, Feb 29, 2024 at 4:28 PM

Subject: Venture Global follow up / briefing

To: <nance.earthea@epa.gov>

Cc: John Allaire (b) (6) <[REDACTED]@yahoo.com>, Thompson, Steve <thompson.steve@epa.gov>

Dear Dr. Nance,

Hello. We are including Steve Thompson on this email as he has, in the past, communicated regarding enforcement and Venture Global.

We are wondering if we can both provide and receive an update on Venture Global. The operational problems have been a serious problem and need attention.

Thank you, and let us know.

Anne Rolfes

Anne Rolfes, Director, Louisiana Bucket Brigade, (504) 452-4909



TULANE LAW SCHOOL

TULANE ENVIRONMENTAL LAW CLINIC

Via Email to:

Louisiana Department of Environmental Quality
Public Participation Group
dcq.publicnotices@la.gov

Dr. Earthea Nance, Administrator
EPA Region 6
Nance.Earthea@epa.gov

**Re: Comments on 2024 Louisiana Annual Monitoring Network Plan, AI #168755,
PER99999999**

Dear LDEQ Public Participation Group and Dr. Nance,

On behalf of Patricia Charles, Raphael Sias, Ronald Carrier, Larry Allison, Karl Prater, McKeever Edwards, Carolyn Peters, Stafford Frank, and Peggy Anthony ("Mossville community members"), as well as Inclusive Louisiana, RISE St. James, Refined Community Empowerment, Healthy Gulf, and the Sierra Club, we respectfully submit these comments on Louisiana Department of Environmental Quality's ("LDEQ's") proposed 2024 Annual Air Monitor Network Plan ("2024 Plan") for the State of Louisiana. We are aware that LDEQ is responsible for proposing the Plan and EPA must approve it. Therefore, we submit these comments to both agencies.

EPA's regulations governing the design of state monitoring networks provide that

The ambient air monitoring networks must be designed to meet three basic monitoring objectives. ... (a) Provide air pollution data to the general public in a timely manner. ... (b) Support compliance with ambient air quality standards and emissions strategy development. ... (c) support for air pollution research studies.¹

Regardless of whether LDEQ's 2024 Plan meets the bare regulatory minimums for number and placement of monitors, it fails to meet these above objectives. We offer specific comments on this failure below.

I. LDEQ Ignored the Recommendations Provided by EPA in its Approval of the 2023 Annual Monitoring Network Plan

In approving LDEQ's 2023 Annual Monitoring Network Plan, EPA offered several recommendations aimed at improving the ability of LDEQ's monitoring network to determine

¹ 40 CFR Part 58, Appendix D § 1.1.

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whether or not violations of the National Ambient Air Quality Standards (“NAAQS”) were occurring across the state. These included 1) adding additional monitoring in the areas of modeled violations of the primary annual PM_{2.5} standard in the Mississippi River corridor and Calcasieu Parish; 2) establishing a permanent, NAAQS-comparable, monitor for PM_{2.5} and SO₂ at the Irish Channel site, and 3) monitoring PM₁₀ in the area of Romeville in St. James Parish.² EPA based these recommendations on evidence that violations of the NAAQS for the relevant pollutants were occurring in each of these areas.³

In reviewing the 2024 Plan, it appears that LDEQ steadfastly ignored each of these recommendations. In doing so, LDEQ essentially refused to even consider investigating credible potential violations of the NAAQS and their resulting impacts on nearby communities. This “see-no-evil” approach fails to meet the goal of the air monitoring network in supporting compliance with the NAAQS. LDEQ and EPA should work together to follow through on these recommendations, or if LDEQ is unwilling to do so, EPA should disapprove the 2024 Plan.

II. LDEQ Continues to Arbitrarily Exclude PM_{2.5} Data from NAAQS Comparisons

In the 2024 Plan, LDEQ outlines a plan to collocate Teledyne T640s with Federal Reference Method monitors at seven sites “for comparison purposes for at least a year.”⁴ The plan goes on to indicate that T640s may replace current PM monitors at 10 additional sites, “pending analysis of comparability between FRM and Federal Equivalent Method (FEM) data.”⁵ This collocation is unnecessary and represents a waste of limited funding and staff time for LDEQ’s air monitoring program. LDEQ fails to recognize that monitors designated as FEM have already undergone extensive testing and collocation to attain this gold-standard designation from EPA. LDEQ should not spend its limited resources on unnecessary and redundant air monitoring, given the many environmental justice communities in this state with no air monitoring whatsoever. Despite repeated requests,⁶ LDEQ has refused to establish permanent air monitoring sites in environmental justice communities (e.g., Romeville and St. Rose), citing a lack of funding and a purported lack of legal mandate to do so.⁷ Yet, LDEQ provides no justification for its plan to perform unnecessary, unmandated, and costly collocation of the seven T640 monitors.

² Letter from David Garcia, Director, Air and Radiation Division, Region 6, US EPA, to Jason Meyers, Administrator, Air Planning and Assessment Division, LDEQ 2 (Jan. 24, 2024), <https://edms.deq.louisiana.gov/app/doc/view?doc=14230094>.

³ *Id.*

⁴ LDEQ, 2024 Louisiana Annual Monitoring Network Plan 3 (Feb. 20, 2024), *available at* <https://edms.deq.louisiana.gov/app/doc/view?doc=14714151> (hereinafter cited to as “2024 AMNP”). The sites are Capitol, Chalmette, Kenner, Port Allen, Westlake, I-610 New Orleans, and Marrero.

⁵ *Id.*

⁶ *See, e.g.*, Tulane Env’t Law Clinic, Comments on 2023 Louisiana Annual Monitoring Network Plan 4 (April 13, 2023), *available at* <https://edms.deq.louisiana.gov/app/doc/view?doc=13760626>.

⁷ *See generally* LDEQ, 2023 Annual Monitoring Network Plan – Response to Comments (attached as Exhibit 1). LDEQ’s responses to comments on the 2023 Plan largely consist of reiterating that the Plan met the minimum legal requirements or stating that comments were “outside of the scope” of the Plan, without substantively engaging with the credible evidence that the monitoring network as designed was likely missing violations of the NAAQS. Commenters also note that LDEQ never posted this document to its EDMS public records system.

Instead of conducting redundant air monitoring at these seven sites, LDEQ should use any extra resources to establish or expand air monitoring in environmental justice communities.

In addition to being unnecessary and wasteful, LDEQ's proposed collocation of the T640s is a **red herring**, since LDEQ previously used the same strategy to argue that continuous data from the BAM 1020 monitors could not be compared against the National Ambient Air Standards (NAAQS). Specifically, in July 2013, LDEQ requested EPA's approval to "remove PM_{2.5} BAM data from comparison to NAAQS standards," claiming that collocation of the BAMs with FRM monitors indicated that "the BAMs have proven to be inconsistent and unreliable" ⁸ This claim was based on the observation that the PM_{2.5} readings taken by the continuous BAMs were commonly higher than the readings measured by the FRMs. Yet, this claim ignored the well-established phenomenon of **evaporation loss of collected semi-volatile species during PM_{2.5} sampling**. ⁹ Because the FRM monitors used by LDEQ collect each sample over a 24-hr period, there is significant evaporation of semi-volatile species, resulting in artificially low PM_{2.5} concentrations. By contrast, continuous PM_{2.5} monitors, including the BAM 1020 and the Teledyne T640, collect samples hourly, resulting in minimal evaporative loss and more accurate PM_{2.5} concentrations.

A 2005 peer-reviewed study found "consistent bias" in the 24-hr average mass measurements obtained with the PM_{2.5} FRM, resulting in 32% lower PM_{2.5} concentrations, on average, compared to a continuous PM_{2.5} sampler with FEM technology. ¹⁰ By simultaneously measuring PM_{2.5} and semi-volatile species, the authors definitively attributed this bias to the partial loss of the semi-volatile species in the FRM method. Subsequent peer-reviewed studies have confirmed that 24-hr average mass measurements obtained by FRM monitors significantly underestimate PM_{2.5} concentrations compared to continuous samplers. For example, Liu et al. (2014) found that, on average, 46% of ammonia, 67% of nitrate, and 74% of chloride present in the PM_{2.5} sample evaporated during 24-hr sampling using an FRM monitor in field conditions. ¹¹ If LDEQ intends to collocate FRM and FEM monitors for the purpose of evaluating data **reliability, the agency must use denuder samplers to quantify semi-volatile loss during PM_{2.5} sampling**, as described in detail by Liu et al. (2015). ¹² Such sampling would be especially important at the Westlake site, given the large amount of semi-volatile compounds emitted in the

⁸ Letter from Paul D. Miller, Administrator, LDEQ to Thomas Diggs, Associate Director for Air, Region 6, EPA (July 1, 2023), available at https://cdms.deq.louisiana.gov/app/doc/view/doc_17196+10.

⁹ See, e.g., Brett D. Grover et al., Measurement of total PM_{2.5} mass (nonvolatile plus semivolatile) with the Filter Dynamic Measurement System tapered element oscillating microbalance monitor. 110 *J. of Geophysical Resch Atmospheres* D07S03 (2005), <https://doi.org/10.1029/2004JD004995> (attached as Exhibit 2); Chun-Nan Liu, et al., Sampling and conditioning artifacts of PM_{2.5} in filter-based samplers, 85 *Atmospheric Env't* 48 (2014), <https://doi.org/10.1016/j.atmosenv.2013.11.075> (hereinafter "Liu 2014") (attached as Exhibit 3); Chun-Nan Liu, et al., Theoretical model for the evaporation loss of PM_{2.5} during filter sampling, 109 *Atmospheric Environment* 79 (2015), <https://doi.org/10.1016/j.atmosenv.2015.03.012> (hereinafter "Liu 2015") (attached as Exhibit 4).

¹⁰ Grover, *supra* note 7, at 7.

¹¹ Liu 2014, *supra* note 7, at 53.

¹² See Liu 2015, *supra* note 7, at 80

vicinity.¹³ For example, 230 tons of ammonia were emitted within one mile of the Westlake monitoring site in 2022, based on self-reported industry data.¹⁴

Importantly, the LDEQ's attempts to disregard continuous PM_{2.5} readings extends to other monitoring technologies. Specifically, the Plan indicates that "TEOMs are operated as non-FEM/non-FRM and are therefore not NAAQS comparable," with no explanation.¹⁵ These TEOMs are Federal Equivalent Method monitors,¹⁶ and LDEQ operates them at five sites across Louisiana.¹⁷ There is no indication that LDEQ has ever requested EPA approval for excluding the data from its TEOM monitors from NAAQS comparisons. In previous air monitoring plans, LDEQ indicated that the TEOM data are excluded from NAAQS comparisons "due to exclusion of the comparison of the data from PM_{2.5} continuous BAM monitors..."¹⁸ This justification ignores the fact that the BAM uses an entirely different technology from the TEOM monitor, and that the EPA exclusion applied to only a *subset* of BAM monitors.¹⁹ Tellingly, the LDEQ subsequently revised this justification, to now simply state that the TEOMs are operated as non-FEM, with no further explanation.²⁰ Given the high cost of FEM monitors, it is a wasteful use of limited resources for LDEQ to purchase FEM monitors and operate them as non-FEM. The LDEQ must provide a legitimate justification for any proposed data exclusions, and EPA must require LDEQ to operate FEM monitors as FEM monitors.

III. LDEQ's Plan Fails to Deliver the Promised St. James Air Monitoring Site

It is alarming that the Plan does not include the new St. James air monitoring site that was announced by EPA in June 2023.²¹ More than 10 months ago, the EPA awarded LDEQ nearly half a million dollars to establish this site.²² According to St. James residents, the monitoring equipment has been purchased and delivered to the site, but the LDEQ has delayed the onset of data collection without explanation. Currently, there is no timeline for data collection to begin. The LDEQ must modify its proposed 2024 Air Monitoring Plan to include the new St. James air monitoring site. Further, LDEQ should immediately provide the community with an explanation

¹³ LDEQ Annual Certified Emissions Data 2015-Present (Feb. 14, 2024), *available at* <https://www.deq.louisiana.gov/page/erc-public-reports>.

¹⁴ Available via LDEQ's Actual Emissions by Radius Report, using GPS coordinates for the Westlake site (30.2637080, -93.2826018). See <https://business.deq.louisiana.gov/Erc/brickReports/RadiusReportSelector?>

¹⁵ 2024 AMNP at 12.

¹⁶ See Office of Research and Development; Ambient Air Monitoring Reference and Equivalent Methods: Designation of Four New Equivalent Methods, 74 Fed. Reg. Vol. 74 28,696, 28,696 (June 17, 2009), <https://www.federalregister.gov/documents/2009/06/17/E9-14731/office-of-research-and-development-ambient-air-monitoring-reference-and-equivalent-methods>.

¹⁷ French Settlement, Madisonville, New Orleans City Park, Shreveport airport, and Thibodaux.

¹⁸ See LDEQ, 2020 Annual Monitoring Network Plan, 11-16 (April 5, 2020) (This statement is in the footnote included on each page of Table B). *available at* <https://edms.deq.louisiana.gov/app/doc/view/doc=12170894>.

¹⁹ Letter from Thomas H. Diggs, Associate Director for Air, EPA, Region 6 to Paul D. Miller, Administrator, Office of Env't Compliance Assessment Division, LDEQ 2 (Mar. 27, 2014) ("We disapprove the request to exclude the FEM BAM at the Capitol site.") (attached as Exhibit 5).

²⁰ 2024 AMNP at 12.

²¹ EPA, Region 6, "EPA, Rep. Troy Carter Announce Grant for La. DEQ Air Monitoring Project in St. James Parish." (June 5, 2023), <https://www.epa.gov/newsroom/epa-rep-troy-carter-announce-grant-la-deq-air-monitoring-project-st-james-parish>.

²² *Id.*

for the delay in the onset of monitoring and should work to begin operating this site as soon as possible. This site **must** include NAAQS comparable, continuous PM_{2.5} monitoring.

IV. LDEQ's Plan Ignores Requests from Industry and Residents to Restore Monitoring in St. Rose

Leaders from industry, local government, and the St. Rose community have asked LDEQ to restore the air monitoring site located in St. Rose, a heavily industrialized community in St. Charles Parish.²³ This includes International-Matex Tank Terminals (IMTT), who operates a large petrochemical terminal immediately adjacent to a residential community in St. Rose. Importantly, IMTT partially funded the air monitoring site that LDEQ previously operated in St. Rose; yet neither IMTT nor the community was informed when LDEQ dismantled the air monitoring site without notice in 2023.²⁴ This failure to communicate is especially egregious, considering that LDEQ portrayed the St. Rose air monitoring site as evidence of its commitment to environmental justice in its 2022 Louisiana Annual Monitoring Network Plan.²⁵ In the 2022 plan, LDEQ describes the St. Rose air monitor as a “locally-led, community-driven” solution to “improve environmental protection.” Yet LDEQ never presented a final air monitoring report to the community, nor made any apparent effort to improve environmental protection based on the data collected.

IMTT has expressed willingness to help LDEQ secure funding to reestablish the air monitoring site in St. Rose.²⁶ Yet, there is no indication that LDEQ is pursuing this opportunity. LDEQ must reestablish the St. Rose air monitoring site and must include continuous PM_{2.5} monitoring, given the large number of sources of PM_{2.5} and, in particular, PM_{2.5} precursors (e.g., VOCs) in the vicinity.²⁷ For example, there were **885 tons** of VOCs emitted within 3 miles of the former St. Rose air monitoring site in 2022, based on self-reported industry data.²⁸ LDEQ must also summarize and present the air monitoring data previously collected in St. Rose.²⁹ It is especially important that LDEQ provide summary statistics and reference values for the VOC data collected, given the massive amount of VOC emissions in this community and the regular reports of noxious odors from residents.

²³ See April 3, 2024 letter from Michelle O'Daniels, Councilperson District V, St. Charles Parish, to LDEQ. Available at <https://edms.deq.louisiana.gov/app/doc/view?doc=14231359>. See also March 28, 2024 comment from Traci Johnson, Vice President ESS at IMTT. Available at <https://edms.deq.louisiana.gov/app/doc/view?doc=14226700>.

²⁴ See also March 28, 2024 comment from Traci Johnson, Vice President ESS at IMTT. Available at <https://edms.deq.louisiana.gov/app/doc/view?doc=14226700>.

²⁵ LDEQ, 2022 Annual Monitoring Network Plan 7 (Apr. 14, 2022), *available at* <https://edms.deq.louisiana.gov/app/doc/view?doc=13228415>.

²⁶ *Id.*

²⁷ LDEQ Annual Certified Emissions Data 2015-Present. (Feb. 14, 2024), *available at* <https://www.deq.louisiana.gov/page/arc-public-report>.

²⁸ Available via LDEQ's Actual Emissions by Radius Report, using GPS coordinates for the site where the St. Rose monitor was previously located at 302 Adams St. (29.9548291, -90.3255732). See <https://business.deq.louisiana.gov/Enr/EricReport/RadiusReportSelector?>.

²⁹ “The ambient air monitoring networks must be designed to ... [p]rovide air pollution data to the general public in a timely manner. ...” 40 CFR Part 58, Appendix D § 1.1.

V. LDEQ's Monitoring is Meaningless if the Agency Ignores PM_{2.5} Exceedances

In March 2024, EPA lowered the primary annual PM_{2.5} NAAQS to 9.0 µg/m³, based on evidence that concentrations below the previous standard negatively impact human health.³⁰ Yet there is no evidence that either LDEQ or EPA is taking action to address the evidence that Louisiana communities are exposed to PM_{2.5} concentrations above the new standard. For example, the continuous PM_{2.5} monitor in Westlake, Louisiana indicates an overall average PM_{2.5} concentration of 10.4 µg/m³ since it began operating on April 1, 2022.³¹ This value is within 5% of the annual averages obtained for the previous three years (2019-2021) using the BAM 1020 (Table 1)—all also above the 9.0 µg/m³ threshold. The consistency between the two methods of data collection, which use entirely different measurement technologies, further supports the reliability of the BAM 1020 data and the evidence of an ongoing violation of the new primary annual NAAQS for PM_{2.5}.

Table 1. Annual Mean PM_{2.5} Concentrations at LDEQ's Westlake Monitoring Site in the Lake Charles MSA

Year	PM _{2.5} Annual Average (µg/m ³)
2012	9.2
2013	9.9
2014	8.9
2015	10.6
2016	10.9
2017	11.1
2018	11.3
2019	10.8
2020*	10.6
2021	10.9
2022**	10.1
2023	11.0

*The actual PM_{2.5} concentration is likely higher because data are missing for 76 days after Hurricane Laura, when there were large sources of PM_{2.5} nearby (fires, flaring). LDEQ never explained why the Westlake monitor was non-operational for more than two months after Hurricane Laura, long after power had been restored and the monitoring site began collecting weather data.

**LDEQ replaced the BAM 1020 with a Teledyne T640 continuous PM_{2.5} monitor on April 1, 2022. Method-specific average PM_{2.5} concentrations were 10.6 µg/m³ (Jan 1 – Mar 31, 2022) and 10.0 µg/m³ (Apr 1 – Dec 31, 2022).

³⁰ Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 Fed. Reg. 16,202, 16,202 (Mar. 6, 2024).

³¹ PM_{2.5} data available at <https://internet.deq.louisiana.gov/portal/DIVISIONS/AIR-MONITORING/AIR-MONITORING-DATA-WITH-INTERVAL-3-OR-10-MINUTES>. Westlake data from April 1, 2022 through April 14, 2024 is attached as Exhibit 6.

EPA recognized the need for expanded air monitoring in this heavily industrialized area, and, in early 2022, gave LDEQ funding to upgrade the Westlake PM_{2.5} monitor.³² Yet, this recognition and funding have not translated to air quality improvements, because LDEQ is—as far as the public is aware—disregarding the evidence of a PM_{2.5} NAAQS violation in the Westlake area. The LDEQ must recognize these measured NAAQS exceedances and immediately take steps to declare Calcasieu Parish as non-attainment for the primary annual PM_{2.5} standard.

For the foregoing reasons, Commenters believe that LDEQ must substantially revise the 2024 Annual Monitoring Network Plan to address these concerns, else EPA should disapprove of the plan in its current form.

Respectfully submitted by:

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³² Prior to the installation of the EPA-funded Teledyne T640 monitor, LDEQ was operating a BAM 1020 monitor at the site. Although the BAM 1020 is designated FEM, the LDEQ was operating it as a non-FEM monitor, with no explanation. This discrepancy is consistent with LDEQ's alarming pattern of disregarding data from continuous PM_{2.5} monitors.

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