BEFORE THE ADMINISTRATOR UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF)	
)	
LDEQ Title V Air Operating Permit)	
No. 3086-V10; PSD-LA-751(M5))	
, ,)	Permit No. 3086-V10
For Nucor Steel Louisiana, LLC)	PSD-LA-751(M5)
)	
Issued by the Louisiana Department of)	
Environmental Quality)	

PETITION TO OBJECT TO THE TITLE V OPERATING PERMIT FOR THE NUCOR LOUISIANA STEEL PLANT IN CONVENT, LOUISIANA

Pursuant to section 505(b)(2) of the Clean Air Act, 42 U.S.C. § 7661d(b)(2), and 40 C.F.R. § 70.8(d), Myrtle Felton, Barbara Washington, Gail Leboeuf, Inclusive Louisiana, and Louisiana Bucket Brigade ("Petitioners")¹ petition the Administrator of the U.S. Environmental Protection Agency ("EPA") to object to the above-referenced proposed Title V permit issued by the Louisiana Department of Environmental Quality ("LDEQ") for the direct-reduced iron facility in Convent, Louisiana owned and operated by Nucor Steel Louisiana, LLC ("Nucor").

Nucor's Louisiana facility (the "facility") is a direct iron ore (DRI) facility. According to Nucor, Nucor Steel LA is the largest "HYL" DRI plant in the world and the only HYL DRI plant to operate in the United States.² This facility has an annual production capacity of 2.5 million tons of direct reduced iron.³ Nucor has had significant permit violations and has endangered the health of Romeville residents and Nucor employees since operations began. This new permit will not reverse or alleviate that trend.

A Title V permit must include compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit; LDEQ's permit does not meet this standard. Further, LDEQ violated applicable procedural requirements by not allowing for public participation after significantly modifying the permit.

EPA must object to the proposed permit's monitoring, testing, and emission calculation methods. EPA must also object for the independent reason that LDEQ failed to provide a

¹ The undersigned attorneys submit this petition on behalf of the Petitioners.

² See Letter from Calvin Hart, Nucor General Manager, to Madison Kirkland, LDEO (July 28, 2021), EDMS Doc. ID 12830204, (available at https://edms.deq.louisiana.gov/app/doc/view?doc=12830204).

³ Nucor, "Our History,"

https://nucor.com/history#:~:text=Nucor%20Steel%20Louisiana%20LLC%20is,volatility%20in%20raw%20materia 1%20prices.

reasoned explanation for why the proposed permit ensures compliance with emissions limits given its failure to remove all "SSM" exceptions from the permit.

Acute environmental justice concerns in the communities surrounding Nucor provide additional reason why EPA must pay special attention and object to the monitoring and emission calculation requirements in this permit. EPA action is needed because LDEQ has clearly and plainly stated that it does not believe there are environmental quality concerns, nor environmental justice concerns, in St. James Parish.

BACKGROUND

I. THE PROPOSED PERMIT ON WHICH THIS PETITION IS BASED

This petition asks EPA to object to the Title V permit for Nucor Steel Louisiana, LLC's DRI facility in Convent, Louisiana (AI No. 157847, Permit No. 3086-10, PSD-LA-751(M5)). The permit action at issue here is a final permit renewal and significant modification, which LDEQ issued on September 27, 2023.

LDEQ released the draft permit for public comment on September 23, 2022, ⁴ with a comment deadline of October 30, 2022. On October 18, 2022, LDEQ extended the public comment period to November 21, 2022. ⁵ Petitioners timely submitted public comments on the permit on November 21. EPA also submitted comments. ⁶ In their Comments, Petitioners raised all the grounds for objection discussed in this petition, except for Petitioners' argument that LDEQ violated applicable procedural requirements after the public comment period ended. ⁷ Petitioners could not have raised this objection for procedural violations in public comments because LDEQ modified this permit after the close of the public comment period. ⁸

On May 5, 2023, LDEQ transmitted a proposed permit to EPA for review. LDEQ included a Public Comments Response Summary with this submission. LDEQ's reponse to public comment did not resolve all of the concerns raised in Petitioners'—and EPA's—comments. Accordingly, EPA objected to the proposed permit on several grounds on June 16, 2023. EPA's objections included:

(1) Objection for Failure to Justify Use of AP-42 Emission Factors to Estimate Emissions

⁴ See Nucor Steel Louisiana, LLC- Direct Reduced Iron Facility, Public Hearing and Request for Public Comment on a Proposed Part 70 Air Operating Permit Renewal/Modification, Prevention of Significant Deterioration (PSD) Permit Modification, & the Associated Environmental Assessment Statement (EAS), AI No. 157847, EDMS Doc. No. 13468402, Sept. 23, 2022, available at https://edms.deg.louisiana.gov/app/doc/view?doc=13468402.

⁵ See Extension of Public Comment Period, AI No. 157847, EDMS Doc No. 13500762, Oct. 18, 2022, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13500762.

⁶ See EPA Questions and Comments on Nucor Permit 3086-V10 and PSD-LA-754(M5), Nov 11, 2022, EDMS Doc. No. 13631450, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13621450.

⁷ See Exhibit A, Petitioners' Comments to LDEQ, November 21, 2022. Note that Petitioners' Comments, including exhibits, are also available on EDMS, at https://edms.deq.louisiana.gov/app/doc/view?doc=13558870. Petitioners have not attached the exhibits to their Comments to LDEQ here but can do so upon request.

⁸ See 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

⁹ Exhibit B, LDEQ's Response to Public Comments.

¹⁰ Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, June 16, 2023.

- (2) Objection for Failure to Justify Use of Emissions Factors Purported to be "Guarantees" from Vendors to Estimate Emission
- (3) Objection for Failure to Justify Basis for Assumption of Control Efficiency above 99% for the Enclosed Conveying Systems for Material Handling
- (4) Failure to Adequately Address EPA's Comments Provided to LDEQ about Authorizing Uncontrolled Emissions During Upsets Associated with Bypassing the SulfurOx Unit
- (5) Failure to Limit Sulfur Content in the Natural Gas Fuel and Iron Ore, and Lack of Monitoring and Recordkeeping Requirements to Demonstrate Compliance with Permit Limits

LDEQ submitted a response to EPA's objection letter and a revised proposed permit to EPA on August 16, 2023.¹¹ At no point did LDEQ post any of these proposed permits or EPA objections on EDMS prior to issuance of the final permit, nor did it notify Petitioners-Commenters of its permit revisions and issuance.

This submittal triggered a 45-day EPA review period ending on October 2, 2023. EPA notified LDEQ of no further objection to the revised proposed permit on September 19, 2023, prior to the conclusion of its 45-day review period. LDEQ issued the final permit on September 20, 2023. This revised proposed permit restarted the clock for Petitioners to petition EPA on Permit No. 3086-V10, as EPA Region 6 has recognized. Petitioners are timely filing this petition by the December 4, 2023, deadline listed on Region 6's website to petition EPA to object to the permit. Appear of the permit of t

II. PETITIONERS

Myrtle Felton is a lifelong resident of Romeville, Louisiana and a founding member of Inclusive Louisiana. She lives along the fenceline of Nucor's property and experiences the effects of its emissions every day.

Barbara Washington is a lifelong resident of Romeville, Louisiana and a founding member of Inclusive Louisiana. She lives along the fenceline of Nucor's property and experiences the effects of its emissions every day.

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¹¹ Title V Regular Permit Renewal/Modification; 3086-V10; DRI, EDMS Doc. No. 13997246, Sept. 20, 2023, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246; and PSD (Prevention of Significant Deterioration); PSD-LA-751(M5); DRI, EDMS Doc. No. 13997244, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997244.

¹² See id.

¹³ See EPA, "Operating Permit Timeline for Louisiana," available at https://www.epa.gov/caa-permitting/operating-permit-timeline-louisiana ("EPA Received a new proposed permit on 5/5/23 and objected to that proposed permit on June 16, 2023. On August 16, 2023, LDEQ provided a revised proposed permit for EPA consideration. Renewal and Significant Modification, also PSD Major mod to permit PSD-LA-751(M-5)") (last accessed Dec. 3, 2023); see also id. (listing Dec. 4, 2023 as the deadline to petition EPA on the permit) (last visited Nov. 28, 2023).

¹⁴ See EPA, "Operating Permit Timeline for Louisiana," available at https://www.epa.gov/caa-permitting/operating-permit-timeline-louisiana (listing Dec. 4, 2023 as the deadline to petition EPA on the permit) (last visited Nov. 28, 2023).

Gail Leboeuf is a lifelong resident of St. James Parish, Louisiana and a founding member of Inclusive Louisiana. She lives near the Nucor facility as well as numerous other polluting industries in St. James Parish.

Inclusive Louisiana is a non-profit, grassroots community advocacy organization based in St. James Parish and dedicated to protecting the residents of St. James Parish and neighboring parishes from environmental harm caused by industrial pollution. Inclusive Louisiana uses grassroots community advocacy to resist systemic injustices related to industrial pollution.

Louisiana Bucket Brigade ("LABB") is a non-profit environmental health and justice organization based in Louisiana. LABB works with communities that neighbor Louisiana's oil refineries and chemical plants and uses grassroots action to create an informed, healthy society with a culture that holds the petrochemical industry and government accountable for the true costs of pollution to create a healthy, prosperous, pollution-free, and just state where people and the environment are valued over profit.

III. GENERAL TITLE V PERMIT REQUIREMENTS

To protect public health and the environment, the Clean Air Act prohibits major stationary sources of air pollution from operating without or in violation of a valid Title V permit, which must include conditions sufficient to "assure compliance" with all applicable Clean Air Act requirements. "Applicable requirements" include all standards, emissions limits, and requirements of the Clean Air Act. Congress intended for Title V to "substantially strengthen enforcement of the Clean Air Act" by "clarify[ing] and mak[ing] more readily enforceable a source's pollution control requirements." As EPA explained when promulgating its Title V regulations, a Title V permit should "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements."

Among other things, a Title V permit must include compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. ¹⁹ The D.C. Circuit has explained that under Title V a "monitoring requirement insufficient 'to assure compliance' with emission limits has no place in a permit unless and until it is supplemented by more rigorous standards." ²⁰

If applicable requirements themselves contain no periodic monitoring, EPA's regulations require permitting authorities to add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance

¹⁵ 42 U.S.C. §§ 7661c(a), (c); 40 C.F.R. §§ 70.6(a)(1), (c)(1).

¹⁶ 40 C.F.R. § 70.2.

¹⁷ S. Rep. No. 101-228 at 347, 348 (1990), *as reprinted in* A Legislative History of the Clean Air Act Amendments of 1990 (1993), at 8687, 8688.

¹⁸ Operating Permit Program, Final Rule, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992).

¹⁹ 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1).

²⁰ See Sierra Club v. EPA, 536 F.3d 673, 677 (D.C. Cir. 2008).

with the permit."²¹ The D.C. Circuit has also acknowledged that the mere existence of periodic monitoring requirements may not be sufficient.²² For example, the court noted that annual testing is unlikely to assure compliance with a daily emission limit.²³ In other words, the frequency of monitoring methods must bear a relationship to the averaging time used to determine compliance. 40 C.F.R. § 70.6(c)(1) of EPA's regulations acts as a "gap filler" and requires that permit writers must supplement a periodic monitoring requirement inadequate to assure compliance.²⁴

In addition to including permit terms sufficient to satisfy EPA's Title V monitoring and reporting requirements, permitting authorities must include a rationale for the monitoring and reporting requirements selected that is clear and documented in the permit record.²⁵

If a state proposes a Title V permit that fails to include and assure compliance with all applicable Clean Air Act requirements, EPA must object to the issuance of the permit before the end of its 45-day review period. ²⁶ If EPA does not object to a Title V permit, "any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period . . . to take such action." The Clean Air Act provides that EPA "shall issue an objection . . . if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements of the [Act]". EPA must grant or deny a petition to object within 60 days of its filing. ²⁹

GROUNDS FOR OBJECTION

For all the reasons discussed below, EPA must object to the Title V permit for Nucor Steel Louisiana because the permit fails to satisfy substantive requirements of the Clean Air Act and EPA's Title V regulations. EPA must also object to the Title V permit because of procedural deficiencies in DEQ's revision of the permit.

²¹ 40 C.F.R. § 70.6(a)(3)(i)(B); see also In re Mettiki Coal, LLC, Order on Petition No. III- 2013-1 (Sept. 26, 2014) ("Mettiki Order") at 7, available at https://www.epa.gov/sites/default/files/2015-08/documents/mettiki_decision2013.pdf (last accessed Dec. 3, 2023).

²² Sierra Club, 536 F.3d at 676–77.

²³ *Id.* at 675

²⁴ *Id.* at 675; see also Mettiki Order at 7.

²⁵ Mettiki Order at 7-8. *See also* 40 C.F.R. § 70.7(a)(5) ("The permitting authority shall provide a statement that sets for the legal and factual basis for the draft permit conditions").

²⁶ 42 U.S.C. § 7661d(b)(1); 40 C.F.R. § 70.8(c).

²⁷ 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

²⁸ 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1); see also N.Y. Pub. Interest Group v. Whitman, 321 F.3d 316, 333 n.12 (2d Cir. 2003) (explaining that under Title V, "EPA's duty to object to non-compliant permits is nondiscretionary").

²⁹ 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

I. ENVIRONMENTAL JUSTICE CONCERNS MANDATE ACTION BY EPA TO ENSURE THAT THIS PERMIT'S PROVISIONS COMPLY WITH TITLE V REOUIREMENTS.

As Petitioners detailed extensively in their comment, and as EPA itself has acknowledged in its Objections, the Nucor facility raises serious environmental justice concerns that are only exacerbated by the renewal of the Title V permit. EPA has a duty to achieve environmental justice by addressing disproportionate burdens of pollution that result from its programs, including its Clean Air Act permitting duties. EPA defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies." As EPA recognizes, historically marginalized communities overburdened with pollution exposure "suffer the most" from pollution exposure because of existing racial and socioeconomic disparities. EPA's current strategies and initiatives for advancing environmental justice include reducing air toxics and heavy metals exposure in overburdened, high-risk communities like Romeville, which, as Figure 1 below illustrates, is surrounded by significant polluters. This duty to further environmental justice is strongly implicated by the Nucor permit.

The 4,000-acre Nucor facility is a major pollution source in this area. In total, the Nucor facility released 777.83 tons of toxic air pollution in 2020, consisting of chemicals like sulfur dioxide (SO₂), nitrogen oxides (NO_X), and benzene, among other hazardous air pollutants, carcinogens, and metals.³³ If this permit is approved, Nucor will increase its emissions of every single criteria pollutant as well as lead, hydrogen sulfide, and sulfuric acid mist, some by staggering quantities.³⁴

https://www.epa.gov/environmentaljustice#:~:text=Environmental%20justice%20is%20the%20fair,laws%2C%20regulations%2C%20and%20policies.

³⁰ Executive Order 12898 (see also 13998 and 14008, building on Executive Order 12898).

³¹ See Environmental Justice, U.S. EPA, available at:

³² EPA Strategy to Reduce Lead Exposures and Disparities in U.S. Communities_October 2022, p. 3, available at https://www.epa.gov/system/files/documents/2022-10/Lead Strategy.pdf EPA must also comply with Title VI of the Civil Rights Act of 1964, which provides that "[n]o person in the United States shall, on the ground of race, color, or national origin . . . be subjected to discrimination under any program or activity receiving Federal financial assistance." 42 U.S.C. § 2000d (2018). EPA and agencies receiving federal financial assistance, including LDEQ, must not use "criteria or methods of administering its program or activity which have the effect of subjecting individuals to discrimination because of their race, color, [or] national origin, . . . or have the effect of defeating or substantially impairing accomplishment of the objectives of the program or activity with respect to individuals of a particular race, color, [or] national origin." *Id.* at §7.35(b).

³³ EPA, National Emissions Inventory Report, 2020 Point Source Emissions, available at https://awsedap.epa.gov/public/extensions/nei report 2020/dashboard.html#point-db.

³⁴ The revised proposed permit proposes increases in PM₁₀ by 13.98 tpy, PM_{2.5} by 9.4 tpy, SO₂ by 21.51 tpy, NO_x by 39.3 tpy, CO by 444.50 tpy, VOC by 38.37 tpy, GHG by 1,249,817 tpy, Pb by 0.01 tpy, H₂S by 30.04 tpy, and H₂SO4 Mist by 32.34 tpy. *See* Nucor Title V Regular Permit Renewal/Modification; 3086-V10; DRI, Sept. 20, 2023, at p. 5 (EDMS Doc. 13997246 ("Air Permit Briefing Sheet"), available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246.

ASCENSION PARISH **NEW AND** ST. JAMES PARISH **EXISTING** INDUSTRIAL Shell Convent LEMANNVILLE **FACILITIES** (70) CVM Aspalt. ST. JAMES PARISH'S INDUSTRIAL Millenium **Yara** CORRIDOR Galvanizing (3214)UNION Nucor Mosaic **AmSty** Zen-Noh Faustine ROMEVILLE Wanhua Chemical Occidental Chemical (18) **JAMESTOWN** WELCOME Formosa Raven **Plastics** Energy Mosaic Uncle South Sam Louisiana 44) Ergon Methanol Ergon NuStar Expansion **Energy** (3127)Capline CONVENT SynGas Dept. of Energy KEY: LOCAP **New industry Plains** Marketing **Existing industry** Residential YCI Methanol Agricultural area Advocate graphic Undeveloped MOONSHINE Source: Justin Kray

Figure 1: Map of Industrial Facilities Surrounding Petitioners

In addition to Nucor's emissions, other nearby sources also emit large amounts of air toxics and criteria pollutants. Among these are two Mosaic Fertilizer, LLC, plants with a history

of environment-related offenses, which resulted in an \$8 million EPA settlement in 2015.³⁵ As Petitioners already detailed in their first comment and as LDEQ is well aware, St. James Parish has many facilities that emit large amounts of sulfuric acid in particular.³⁶

As EPA has elsewhere recognized, the "determination whether monitoring is adequate in a particular circumstance generally is a context-specific determination, made on a case-by-case basis." As part of that case-by-case determination, environmental justice factors, including the demographics of the surrounding community and amount of pollution burden borne by the community, are factors that must be considered in assessing whether a particular facility's monitoring and emission calculation methods are adequate to ensure compliance with the relevant applicable requirements. ³⁸ In communities that are disproportionately impacted by large amounts of pollution, it is especially important to ensure that members of the surrounding community can determine whether a facility that is releasing pollution that threatens their health is actually meeting its limits.

As Petitioners raised during the public comments period,³⁹ and reiterated by EPA in its objection letter,⁴⁰ the areas surrounding the Nucor facility are predominantly communities of color that are overburdened by hazardous and other air pollution. The air pollution that LDEQ authorizes under the permit will add to the overwhelming air pollution that already inundates St. James Parish and disproportionately affects Black residents. Within three miles of Nucor, 91 percent of residents are people of color, and 53 percent of residents are low-income. EJ Screen reveals that 91 percent of residents within three miles of the facility identify as Black.⁴¹ The per capita income for this population is \$25,249.⁴² In comparison, the racial composition of St. James Parish is approximately 49 percent Black and 49 percent white, with a per capita income of \$30,011.⁴³ The Romeville area is in the 86th percentile for people of color in the state of

³⁵ Mosaic Fertilizer, LLC Settlement, EPA (October 1, 2015), https://www.epa.gov/enforcement/mosaic-fertilizer-llc-settlement#civil (the total penalty related to five separate Mosaic Fertilizer, LLC plants, two in St. James Parish, Louisiana, and three in Florida). Though Mosaic Fertilizer, LLC's EPA settlement required it to clean up its hazardous waste practices, Mosaic has continued to violate hazardous waste regulations; Mosaic reached a settlement agreement for hazardous waste violations with LDEQ as recently as 2022. In the Matter of Mosaic Fertilizer, LLC, Settlement Tracking No. SA-HE-21-0089 (2022) available at https://deq.louisiana.gov/assets/docs/General/Settlement_Agreements/2022/Mosaic0089_Final.pdf.

³⁶ See Exhibit A, Petitioners' Comments to LDEQ, pp. 13-14.

³⁷ In the Matter of Northeast Maryland Waste Disposal Authority-Montgomery County Resource Recovery Facility, Order on Petition No. III-2019-2 (Dec. 11, 2020) ("MCRRF Order").

³⁸ See In the Matter of United States Steel Corp. – Granite City Works, Order on Petition No. V-2011-2 (Dec. 3, 2012) ("Granite City Works Order") at 4-6 (because of "potential environmental justice concerns" raised by the fact that "immediate area around the [] facility is home to a high density of low-income and minority populations and a concentration of industrial activity," "[f]ocused attention to the adequacy of monitoring and other compliance assurance provisions [was] warranted") (citing in part to Executive Order 12898 (Feb. 11, 1994)).

³⁹ See Exhibit A, Petitioners' Comments to LDEQ, p. 20.

⁴⁰ Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, June 16, 2023.

⁴¹ Exhibit D, EJ Screen Community Report for three mile ring centered Nucor.

⁴² Id.

⁴³ Exhibit E, EJ Screen Community Report for St. James Parish, LA.

Louisiana and 63rd percentile for low income residents for the state of Louisiana.⁴⁴ Thus, Nucor is located in an area with a significantly higher population of Black and low income residents than both St. James Parish and the State of Louisiana.

Moreover, the communities surrounding Nucor are of significant environmental justice concern based on EPA's "EJ Indexes," which demonstrate the relative environmental justice concerns for designated areas. ⁴⁵ According to EPA, if a community is at or above the 80th percentile for any one of EJ Index categories, the community warrants further review for environmental justice concerns. ⁴⁶ The communities in the three miles surrounding Nucor meet or exceed the 80th percentile for ten of thirteen EJ Indexes nationally, nine of which also exceed the 80th percentile for the state of Louisiana:

- (1) Air Toxics Cancer Risk (with a national percentile ranking of 98 and a state percentile ranking of 94),
- (2) Toxic Releases to Air (with a national percentile ranking of 97 and a state percentile ranking of 95)
- (3) Ozone (with a state percentile ranking of 95 and a national percentile ranking of 84)
- (4) RMP Facility Proximity (with a national percentile ranking of 92 and a state percentile ranking of 83)
- (5) Wastewater discharge (with a national percentile ranking of 89 and a state percentile ranking of 87)
- (6) Diesel Particulate Matter (with a national percentile ranking of 86 and a state percentile ranking of 82,
- (7) Particulate Matter (with a national percentile ranking of 86 and a state percentile ranking of 82),
- (8) Lead Paint (with a state percentile ranking of 83 and a national percentile ranking of 82)
- (9) Hazardous Waste Proximity (with a national percentile ranking of 84 and a state percentile ranking of 80)
- (10) Air Toxics Respiratory Hazard Index (with a national percentile ranking of 84 and a state percentile ranking of 54).⁴⁷

EJ Indexes for the three miles surrounding the Nucor facility have *worsened* in recent years. EPA released updated EJ Screen data in June of 2023, showing that the three miles surrounding the Nucor facility exceeded Louisiana's 80th percentile in nine of thirteen EJ

⁴⁴ Louisiana: Race and Ethnicity, 2020 Census, U.S. CENSUS BUREAU, available at https://www.census.gov/library/stories/state-by-state/louisiana-population-change-between-census-decade.html; Exhibit D, EJ Screen Community Report for three mile ring centered Nucor.

⁴⁵ EPA, Video: Identifying Communities with Environmental Justice (EJ) Concerns (EPA 2021), available at https://www.youtube.com/watch?v=rQ5qqbBvfxw (last viewed Dec. 3, 2023).

⁴⁷ Exhibit D, EJ Screen Community Report for three mile ring centered Nucor. *But see* Exhibit F, LDEQ Revised Statement of Basis for Nucor at 22 (differing EJ Index figures attributable to Petitioners' use of more updated EJ Screen data than LDEQ based its analysis on).

Indexes. ⁴⁸ The previous data showed that this area exceeded the state's 80th percentile in seven of twelve EJ Indexes. ⁴⁹ Thus, this area eclipsed the 80th percentile in Louisiana for two new EJ Indexes—Lead Paint and Hazardous Waste Proximity – in this latest update. ⁵⁰ The June 2023 EJ Screen update also introduced a new EJ Index, Toxic Releases to Air, which models toxicity-weighted concentrations in air of TRI listed chemicals based on geographic microdata from 2021. ⁵¹ Yet again, this affirms that Petitioners and others residing in the area surrounding Nucor are exposed to more Toxic Releases to Air than 95 percent of Louisianans and 97 percent of Americans. ⁵²

Romeville, the majority Black community that borders the Nucor fenceline, is the most immediately and significantly impacted by Nucor's environmental impacts.⁵³ Nucor's DRI facility is less than 3/4 miles upriver from Romeville. Inclusive Louisiana members Myrtle Felton and Barbara Washington are residents of Romeville and can see the Nucor facility from their homes. They have already experienced corrosion to their cars, roofs, and other structures, and may well be experiencing health impacts, as a result of the sulfuric acid mist emitted from the Facility.⁵⁴ Local residents, including Petitioners, reported during public comments ailments including chronic coughs, itchy watery eyes, respiratory problems, and more.⁵⁵ Petitioner Myrtle Felton had to stop babysitting her grandchildren at her Romeville home because of the impacts of the poor air quality. Residents of Romeville spoke out against the facility in Public Comments and the public hearing on October 27, 2022 but to no avail—their concerns are not reflected in LDEQ's final permit decision.⁵⁶

LDEQ's decision to grant the permit violates EPA environmental justice regulations because such decision would have "the effect of subjecting [residents of Romeville] to discrimination because of their race [or] color" and "the effect of defeating or substantially impairing accomplishment of the objections of [LDEQ's air] program or activity with respect to individuals of a particular race." ⁵⁷

In these circumstances, as Petitioners' comments to LDEQ explained, there is a compelling need for EPA to devote increased, focused attention to ensure compliance with all Title V requirements—especially ensuring that monitoring is adequate to assure compliance

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⁴⁸EJ Screen Change Log, EPA, available at https://www.epa.gov/ejscreen/ejscreen-change-log#september2023.

⁴⁹Exhibit F, LDEQ Revised Statement of Basis for Nucor at 22 (differing EJ Index figures attributable to Petitioners' use of more updated EJ Screen data than LDEQ based its analysis on). (submitted to EPA Aug. 16, 2023, i.e., after the June 2023 update).

⁵⁰ Exhibit D, EJ Screen Community Report for three mile ring centered Nucor.

⁵¹ EJScreen Updates and Changes, EPA (2023), https://www.epa.gov/ejscreen/ejscreen-updates-and-changes. https://www.epa.gov/ejscreen-updates-and-changes. https://www.epa.gov/ejscreen-updates-and-changes. <a href="https://www.epa.gov/ejscreen-updates-and-chang

⁵³ Romeville, CDP, U.S. CENSUS BUREAU (2020)

https://data.census.gov/profile/Romeville_CDP,_Louisiana?g=160XX00US2265850; GOOGLE MAPS, https://www.google.com/maps/place/Romeville,+LA+70723/@30.0624207,-

^{90.8673614,14}z/data=!3m1!4b1!4m6!3m5!1s0x862136a0683b9d7f:0xf2aadf78e31559e9!8m2!3d30.0624228!4d-90.8467618!16s%2Fg%2F1225dxcc?entry=ttu (last visited Dec. 2, 2023).

⁵⁴ See Exhibit A, Petitioners' Comments to LDEQ, at p. 34.

⁵⁵ See Exhibit B, LDEQ Response to Public Comments Summary at pp. 60-71.

⁵⁶ *Id.* at pp. 29-30; 60-71.

⁵⁷ 40 C.F.R. § 7.35(b).

with the limits for Nucor's facility—given the historic over-burdening of this vulnerable population with pollution. EPA has recognized this in responding to a prior Title V permit petition. See, e.g., In the Matter of United States Steel Corp. – Granite City Works, Order on Petition No. V-2011-2 at 4-6 (Dec. 3, 2012) ("Granite City Works Order") (because of "potential environmental justice concerns" raised by the fact that "immediate area around the [] facility is home to a high density of low-income and minority populations and a concentration of industrial activity," "[f]ocused attention to the adequacy of monitoring and other compliance assurance provisions [was] warranted") (citing in part to Executive Order 12898 (Feb. 11, 1994)). 59

A. LDEQ's Response Regarding These Environmental Justice Concerns Fails to Demonstrate that EPA Could or Should Ignore These Important Factors.

Echoing numerous public comments, EPA raised many of the aforementioned environmental justice concerns to LDEQ. Specifically, EPA notified LDEQ that "the Nucor facility is in an area that is heavily populated by industrial facilities that can contribute to health disparities among the residents of the area." Adequately addressing environmental justice concerns includes assessing "equity considerations for overburdened communities during the permitting process." But in response, LDEQ (1) did not sufficiently or accurately recognize the environmental justice impacts to the community around Nucor, (2) did not properly assess the air quality around the facility, and (3) did not account for the impacts of startup, shutdown, and malfunction events. Petitioners renew their objections and assert that the revised proposed permit does not account for environmental justice. Given Louisiana's unfounded denialism and evidence that people living near the facility are already overburdened by industrial pollution, EPA must carefully weigh the concerns voiced by the Petitioners and others during the comment period and object to the Permit because the permit fails to adequately protect public health and safety.

As a threshold matter, environmental justice determinations fall on EPA's shoulders. Only EPA has explicit duties under Executive Orders 13990, 14008, and 12898.⁶² Thus, EPA should give no credence to the state agency's assertions regarding EPA's duties under federal executive orders. While LDEQ obviously has primary responsibility for Title V permitting within Louisiana (with oversight from EPA), and is subject to Title VI of the Civil Rights Act as

⁵⁸ Exhibit A, Petitioners' Comments to LDEQ, , at pp. 7-25.

⁵⁹Granite City Works Order available at https://www.epa.gov/sites/default/files/2015-

^{08/}documents/uss 2nd response2009.pdf; Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Exec. Order 12898 (Feb. 11, 1994); *see also* EPA, EJ 2020, available at https://www.epa.gov/environmentaljustice/ej-2020-action-agenda-epas-environmental-justice-strategy; EPA, Plan EJ 2014, Considering Environmental Justice in Permitting (2014), available at https://nepis.epa.gov/Exe/ZyPDF.cgi/P100ETRR.PDF?Dockey=P100ETRR.PDF.

⁶⁰ Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, pp. 1-2; Exhibit B, LDEQ Response to Public Comments Summary at pp. 14-58.

⁶¹Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, at p. 2.

⁶² See Executive Order 12898 at § 1-101 ("To the greatest extent practicable and permitted by law, . . . each Federal agency shall make achieving environmental justice part of its mission") (emphasis added); see also Executive Order 14008 at § 219 ("Agencies shall make achieving environmental justice part of their mission").

well as its own public trust duties under the state constitution, the state agency's interpretation of EPA's responsibilities under Executive Orders 13990, 14008, and 12898 carries no weight here.

Executive Orders 13990, 14008, and 12898 inform whether an agency has adequately met the requirements of Title V. As EPA has recognized, Executive Order 12898 directly informs EPA's review of the adequacy of those very requirements—including Title V monitoring requirements for facilities in low-income communities or communities of color that are overburdened by pollution, like the community surrounding Nucor's DRI facility. And Executive Order 12898 requires EPA to not only identify, but "address []" disproportionately high and adverse human health or environmental effects of its programs and activities. Each of the grounds Petitioners raise for objection will create progress toward reduction of the disproportionate negative impacts of the Nucor facility on the environmental justice community of Romeville and others nearby, whether that be in the realm of public participation, permitted emissions, or permit violations.

EPA legitimized environmental justice concerns in Louisiana's Industrial Corridor in its *Exxon–Baton Rouge* Order. ⁶⁴ In that order, EPA granted a Title V petition, acknowledging that the "high proportion of low-income residents and people of color and a concentration of industrial activity . . . raise[s] potential environmental justice concerns." EPA reaffirmed its "commit[ment] to advancing environmental justice and incorporating equity considerations into all aspects of EPA's work" and granted the *Exxon—Baton Rouge* petition in full. ⁶⁵

1. LDEQ did not accurately or sufficiently account for the impacts to the surrounding community.

EPA's objection letter to LDEQ detailed the environmental justice concerns raised by the permit. To address these concerns, EPA emphasized that "input received from the community, an evaluation of existing environmental data, use of known demographic information, and other relevant information as much as possible." EPA also underscored the importance of public outreach about the objections to the permit, noting that "When LDEQ responds to this EPA objection, please consider utilizing some form of enhanced public outreach to notify the public of the [EPA's] response to comments and opportunity to petition the EPA to object to the proposed permit." ⁶⁷

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⁶³ See, e.g., Granite City Works Order, at 4-6 (because of "potential environmental justice concerns" raised by the fact that "immediate area around the [] facility is home to a high density of low-income and minority populations and a concentration of industrial activity," "[f]ocused attention to the adequacy of monitoring and other compliance assurance provisions [was] warranted") (citing in part to Executive Order 12898 (Feb. 11, 1994)) (available at https://www.epa.gov/sites/default/files/2015-08/documents/uss_2nd_response2009.pdf).

⁶⁴ See In the Matter of ExxonMobil Fuels & Lubricant Company Baton Rouge Refinery, Order on Petition Nos. VI-2020-4, VI-2020-6, VI-2021-1, VI-2021-2 at 12 (March 18, 2022) ("Exxon–Baton Rouge Order"), available at https://www.epa.gov/system/files/documents/2022-04/exxonmobil-baton-rouge-order_3-18-22.pdf.
⁶⁵ Id. at 11, 12.

⁶⁶ Exhibit C, EPA Objection Letter to LDEQ regarding Nucor.

⁶⁷ *Id*.

LDEO did not dispute that Nucor is surrounded by communities of color with a significant low-income population, and that the communities near the facility are also surrounded by multiple other sources that emit large amounts of criteria pollutants and air toxics. Instead LDEQ "disagree[d] that the [Nucor permit] would disproportionately impact any group of people." 68 LDEQ took issue with the fact that the area surrounding the Nucor facility is at or above the 80th percentile for numerous environmental justice indexes, asserting that it is "not necessarily the case" that communities with a high environmental justice index are disproportionately impacted.⁶⁹ LDEQ reached this conclusion without any renewed public outreach, in flagrant disregard for the clear direction from EPA.

LDEQ relied on outdated data to determine that the Nucor facility did not pose any environmental justice concerns. EPA made the newest EJ Screen data public in June of 2023.⁷⁰ Yet, when LDEO submitted a revised statement of basis to EPA on August 16, 2023, it did not use those updated figures. 71 For example, LDEQ relied on the 2017 Air Toxics Cancer Risk, Diesel Particulate Matter, and Air Toxics Respiratory Hazard Indexes in its response to environmental justice concerns. At that time, EPA had already made the 2019 figures available, but LDEQ did not use them. In fact, LDEQ referenced EPA's 2019 AirToxScreen data in its response to public comments, but months later opted to analyze the more favorable 2017 Air Toxics Cancer Risk and AirToxScreen data in its revised Statement of Basis. 72 Disregarding the new EJ Index—Toxic Releases to Air—saved LDEQ from addressing the alarming trend it revealed: the area around Nucor has more toxicity-weighted concentrations of TRI-listed chemicals in the air than 95 percent of Louisianans and 97 percent of Americans.

LDEQ's Revised Statement of Basis only addressed seven EJ Indexes where the three miles surrounding the facility meet the 80th percentile threshold, while the most updated EJ Screen data that area shows that in fact nine of those indexes meet or exceed the 80th percentile. 73 This discrepancy is not explained but aligns with LDEQ's cavalier treatment of environmental justice concerns generally, which LDEO further demonstrated by attempting to discredit EJ Screen in its response to public comments and revised Statement of Basis instead of confronting the potential harms to the affected communities that EJ Indexes are designed to highlight. 74

⁶⁸ See Exhibit B LDEQ Response to Public Comments Summary at pp. 19-20.

⁶⁹ Exhibit F, LDEQ Revised Statement of Basis for Nucor at 21 at 21.

⁷⁰ EJ Screen Change Log, EPA, https://www.epa.gov/ejscreen/ejscreen-change-log#september2023.

⁷¹ Petitioners were unable to raise this concern in their comment below because neither the data nor LDEQ's revised statement of basis were available at that time. See 40 C.F.R. § 70.12 (a)(1)(iv); see also 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

⁷² Compare Exhibit B LDEO Response to Public Comments Summary at 22 with ExhibitF, LDEO Revised Statement of Basis for Nucor at 22-25. The 3-mile radius surrounding Nucor had a national percentile ranking of 93 and a state percentile ranking of 92 for the 2017 Air Toxics Cancer Risk. Exhibit F, LDEQ Revised Statement of Basis for Nucor at 22. The numbers have only gotten worse, with a national percentile ranking of 98 and a state percentile ranking of 94 in 2019.

⁷³ Exhibit D, EJ Screen Report for Nucor.

⁷⁴ LDEQ's responses tended to challenge the veracity of EJ Screen data, rather than addressing the data head-on. As EPA's website explains, the EJ Screen tool may help users identify areas with minority and/or low-income populations, potential environmental quality issues, and a combination of environmental and demographic indicators that is greater than usual. See Purposes and Uses of EJSCreen, EPA, available at

Many of the Black residents in the Industrial Corridor Parishes—including Petitioners Myrtle Felton, Gail Leboeuf, and Barbara Washington, as well as other members of Inclusive Louisiana and the Louisiana Bucket Brigade—have lived in the area since childhood and have faced cumulative exposure to air toxics over their lifetimes. EPA has acknowledged as much, noting that "Black residents of the Industrial Corridor Parishes, [including St. James Parish,] continue to bear disproportionate elevated risks of developing cancer from exposure to current levels of toxic air pollution." Of this long-term exposure, EPA explained to LDEQ, "[t]he vulnerabilities [residents] carry because of past exposures do not go away because concentrations of air pollution have decreased." Yet, in its response to public comment referencing EPA's language about Black residents of the Industrial Corridor Parishes, LDEQ ignored EPA's guidance and direction and merely contended that actual emissions in the area had declined since 2000. LDEQ's response ignores Petitioners' lifetime, chronic exposures and ignores the changes in toxicity and pollutant mix in the Petitioners' air.

2. LDEQ's assertion that compliance with state and federal air quality standards alone is sufficient to achieve environmental justice is incorrect and not substantiated by air monitoring or modeling for the Facility or surrounding area.

EPA's primary mechanism for ensuring that Title V promotes environmental justice is "through the requirements for monitoring, compliance certification, reporting and other measures intended to ensure compliance with applicable requirements." More specifically, in the *Granite City Works* Order, EPA recognized that Executive Order 12898 "focuses federal attention on the environmental and human health conditions of minority populations and low-income populations with the goal of achieving environmental protection for all communities." EPA further emphasized that "[f]ocused attention to the adequacy of monitoring and other compliance assurance provisions is warranted" when the "immediate area around the [relevant] facility is home to a high density of low-income and minority populations and a concentration of industrial activity."

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https://www.epa.gov/ejscreen/purposes-and-uses-ejscreen. EPA also explains that the indices' use of a national percentile "tells you what percent of the US population has an equal or lower value, meaning less potential for exposure/ risk/ proximity to certain facilities, or a lower percent minority." How to Interpret EJScreen Data, EPA (emphasis added), available at https://www.epa.gov/ejscreen/how-interpret-ejscreen-data. For nine of the thirteen indexes listed, at least 80 percent of the national population has an equal or lower potential for exposure, risk, and proximity than the population surrounding the Nucor facility. See Exhibit C, EJ Screen Report for Nucor.

75 Letter of Concern from EPA to LDEQ at 54, available at https://www.epa.gov/system/files/documents/2022-

⁷⁵ Letter of Concern from EPA to LDEQ at 54, 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; Exhibit A Petitioners' Comments to LDEQ, at 21-22 (quoting Letter of Concern from EPA to LDEQ).

⁷⁶ Letter of Concern from EPA to LDEQ at 54, available at https://www.epa.gov/system/files/documents/2022-

⁷⁶ Letter of Concern from EPA to LDEQ at 54, 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

⁷⁷ Exhibit B, LDEQ's Response to Public Comments. pp. 20-21.

⁷⁸ See Granite City Works Order 12898 at 5-6.

⁷⁹ *Id.* at 5-6. EPA has also recognized that Executive Orders 13990 and 14008 "affirm the federal government's commitment to environmental justice." *In the Matter of ExxonMobil Fuels & Lubricant Company Baton Rouge Refinery*, Order on Petition Nos. VI-2020-4, VI-2020-6, VI-2021-1, VI-2021-2 at n. 17 (March 18, 2022) ("*Exxon*—

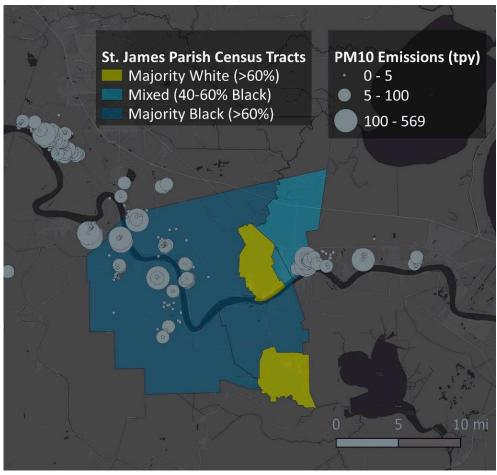


Figure 2: Permitted Industrial PM₁₀ emissions (tons per year) within 10 miles of St. James Parish, relative to the racial composition of census tracts. Emissions are plotted as individual point sources, as represented in current Major Source air permits.

LDEQ's revised proposed permit for the Nucor Facility does not give the requisite attention to monitoring requirements, compliance certification, or reporting measures that would promote environmental justice. Indeed, LDEQ does not even recognize that the air quality surrounding the facility is impaired. RDEQ asserts that compliance with NAAQS and state air quality standards is coterminous with environmental justice, and that no health or environmental justice concerns can exist where an area is not in technical violation of the NAAQs or state-level ambient air standards. As Petitioners and EPA have repeatedly asserted, this conclusion is not supported by science or EPA guidance.

Baton Rouge Order"), available at https://www.epa.gov/system/files/documents/2022-04/exxonmobil-baton-rouge-order_3-18-22.pdf.

⁸⁰ Exhibit F LDEQ Revised Statement of Basis for Nucor at p. 16

⁸¹ *Id.* at p. 20.

First, LDEQ admitted in its response to public comments that NAAQS attainment does not create a rebuttable presumption of adverse health effects and claimed not to rely solely on that reasoning in its Title VI and environmental justice determinations. 82 LDEQ, however, still dedicated several pages of its environmental justice analysis in the revised Statement of Basis to reiterating the antiquated notion that NAAQS compliance is presumptively fully protective. 83 Then, LDEQ further asserted that EPA's current "approach to adversity" is "still intrinsically linked to" NAAQS attainment. 84 LDEQ fails to explain how its conclusion is supported by EPA's current approach, which states in part:

EPA will examine whether site-specific information demonstrates the presence of adverse health effects from the NAAQS pollutants, even though the area is designated attainment for all such pollutants and the facility recently obtained a construction and operating permit that ostensibly meets applicable requirements. For instance, EPA's assessment would seek to establish whether a localized adverse health impact, as indicated by the NAAQS, exists in the area at issue and has been (or will be) caused by the emissions from the [facility] even though the impact of the facility had previously been modeled to demonstrate that the source met the criteria for obtaining a construction permit. (Note that some NAAQS, especially those that are source-oriented in nature, are more likely to be associated with localized air quality impacts than those that are more regional.)⁸⁵

LDEQ quoted the same portion of EPA's approach in its revised Statement of Basis and then concluded that the Nucor permit would not result in adverse impacts to the surrounding area. Despite its admission that NAAQS attainment does not itself dispel any claim of adverse impact, LDEQ supported its findings by merely re-asserting that Nucor's emissions would not results in NAAQS or AAS violations. 86 There were no site-specific analyses or localized assessments of adverse health impacts, as EPA urges.

LDEQ misconstrues EPA's approach to air quality critique, stating that complainants should "provide precise allegation and quantified information about the location and nature of the adverse impact from higher-than expected concentration of the NAAQs pollutant."87 In context, that quote explains that precise allegation and quantified information are not required. but would help EPA "conduct a timely and responsive investigation," which qualified "two critical points" from EPA's guidance:

⁸²Exhibit B, LDEQ's Response to Public Comments .Comment 16 at p. 23-24.

⁸³ Exhibit F, LDEO Revised Statement of Basis for Nucor at pp. 16-19.

⁸⁵ EPA's External Civil Rights Compliance Office Compliance Toolkit at 12 (Jan. 18, 2017) (emphasis added), available at https://www.epa.gov/sites/default/files/2017-01/documents/toolkit-chapter1-transmittal letter-faqs.pdf. ⁸⁶ See Exhibit F, LDEO Revised Statement of Basis for Nucor at p. 20 (noting summarily that "maximum ground level

concentrations of CO will not cause or contribute to violations of the primary or secondary NAAQS. Further, modeling of benzene, H₂S, and H₂SO₄ emissions demonstrates that the impacts of such emissions will be below the Louisiana ambient air standards (AAS) for these pollutants... Accordingly, the proposed process optimization project and other permit modifications will not result in "adverse" impacts in the surrounding area.").

⁸⁷ Exhibit F, LDEQ Revised Statement of Basis for Nucor at p. 20.

- 1. The fact that the area is designated as in attainment with the NAAQS and that the recent permitting record shows that emissions from the facility would not cause a violation of the NAAQS would be <u>insufficient by themselves</u> to find that no adverse impacts are occurring for purposes of Title VI and other federal civil rights laws. EPA's investigation would seek to ascertain the existence of such adverse impacts (e.g., violations of the NAAQS) in an area regardless of the area's designation and the prior permitting record. <u>As stated previously, compliance with environmental laws does not necessarily constitute compliance with federal civil rights laws.</u>
- 2. Complainants do not bear the burden of proving adversity ⁸⁸

LDEQ's reasoning contradicts EPA's policy because EPA does not consider NAAQS attainment or NAAQS compliance presumptively protective.

Second, even in areas that meet the NAAQS (or Louisiana's air toxics ambient air standards, which are significantly outdated and excessively high), emissions in excess of pollution limits at a particular source can severely impact the health of surrounding fenceline communities. For example, ozone and particulate matter have no known safe levels.⁸⁹

Third, EPA has also recognized that ambient air monitors will not detect every NAAQS violation, particularly given the limited monitoring networks in many states. ⁹⁰ In St. James Parish, there is no NAAQS monitoring except for ozone. ⁹¹ Thererfore, the Louisiana air monitoring network is itself unable to provide data for the actual air quality in Romeville, the majority Black community neighboring the Nucor Facility and home to Petitioners Felton and Washington. As described in detail by Drs. Kimberly Terrell and Peter DeCarlo in a letter to EPA Region 6 Administrator Dr. Earthea Nance:

Despite longstanding environmental justice concerns in this region, LDEQ has permitted over a dozen industrial facilities in and around St. James Parish in a discriminatory spatial pattern that protects majority-White neighborhoods at the expense of majority-Black neighborhoods. By all metrics, residents of these industrialized neighborhoods face exceptionally high risk of cancer and respiratory disease from air pollution. Yet, there is no state or federal air

⁸⁸ EPA's External Civil Rights Compliance Office Compliance Toolkit at 12-13 (Jan. 18, 2017) (emphasis added), available at https://www.epa.gov/sites/default/files/2017-01/documents/toolkit-chapter1-transmittal_letter-faqs.pdf.

⁸⁹ See Clean Wisc. v. EPA, 964 F.3d 1145, 1158 (D.C. Cir. 2020) ("[N]o 'threshold concentration below which' ground-level ozone is 'known to be harmless.") (citation omitted); Proposed Particulate Matter NAAQS, 85 Fed. Reg. 24,094, 24,108, 24,109 (Apr. 30, 2020).

⁹⁰ See 80 Fed. Reg. 33,939 (June 12, 2015), available at https://www.govinfo.gov/content/pkg/FR-2015-06-12/pdf/2015-12905.pdf.

^{91 2021} Louisiana Annual Monitoring Network Plan, LDEQ, available at https://www.deq.louisiana.gov/assets/Air Data Sets/LDEQ 2021 Annual Monitoring Network Plan with Cover Letter.pdf; Map of LDEQ Ambient Air Monitoring Stations available at https://deq.louisiana.gov/assets/docs/Air/202300026 State-wide Active Ambient Air Monitors 400dpi.pdf.

monitoring station for any pollutant except ozone in St. James Parish, or within 10 miles of the parish boundary.

In the absence of air monitoring, regulators must necessarily rely on air dispersion *modeling* to ensure NAAQS compliance. This modeling is particularly relevant to environmental justice because LDEQ equates NAAQS compliance with environmental justice. (Notably, EPA's Office of Environmental Justice and External Civil Rights disagrees with this interpretation of environmental justice because it does not address disparate impacts.)⁹²

Fourth, because of the lack of actual ambient air monitoring, LDEQ instead relies on NAAQS modeling when making its environmental equity determinations, yet it does not even require NAAQS modeling for all major sources of criteria pollutants. ⁹³ Nor does LDEQ require NAAQS modeling to assess compliance when new, more protective NAAQS are enacted. ⁹⁴ Evidence indicates that air quality in Romeville does not meet NAAQS for PM₁₀, PM_{2.5}, and NO_X. ⁹⁵

Nucor's own air modeling predicts exceedances of $PM_{2.5}$ and NO_X . ⁹⁶ Independent air monitoring performed in Romeville also detected PM_{10} exceedances in early 2022. ⁹⁷ Despite Nucor predicting exceedances, LDEQ granted Nucor's air permit, asserting summarily that Nucor would not cause or contribute to the exceedance. In another recent permit challenge from September 2022, this kind of justification was found "arbitrary and capricious" by a Louisiana District Court, in a case related to a proposed major pollution source in St. James Parish. ⁹⁸

Even though there are no NAAQS monitors in St. James Parish other than for ozone⁹⁹; even though the area is nationally known for its pollution;¹⁰⁰ even though the Louisiana

⁹⁴ *Id*.

⁹² Exhibit G, Letter from Drs. Peter DeCarlo and Kimberly Terrell to Dr. Earthea Nance, EPA Region 6 Administrator, (Nov. 14, 2022) at 1.(citations omitted).

⁹³ *Id*.

⁹⁵ Id.

⁹⁶ *Id*.

⁹⁷ Id.

⁹⁸ Rise St. James et al. v. Louisiana Dep't of Env't Quality, Docket No. 694029, Written Reasons for Judgment at 14 (19th Jud. Dist. Ct. La., Sept. 14, 2022) ("LDEQ's lack of support in rejecting modeling data it approved, data that contradicts the agency's conclusions, is arbitrary and capricious decisionmaking."), available at https://law.tulane.edu/sites/default/files/u2404/FormosaRuling.091422.pdf (note this matter is being appealled)

⁹⁹ 2021 Louisiana Annual Monitoring Network Plan, LDEQ, available at

https://www.deq.louisiana.gov/assets/Air_Data_Sets/LDEQ_2021_Annual_Monitoring_Network_Plan_with_Cover_Letter.pdf

Maite Amorebieta, Cynthia McFadden, Katie Reimchen and Richard Schapiro, Toxic school: How the government failed Black residents in Louisiana's "Cancer Alley," NBC News (Mar. 16, 2023), available at https://www.nbcnews.com/news/us-news/toxic-school-government-failed-black-residents-louisianas-cancer-alley-rcna72504; McFadden, Reimchen, and Schapiro, EPA chief travels to "Cancer Alley" to announce proposal to curb toxic emissions, NBC News (April 16, 2023), available at https://www.nbcnews.com/news/nightly-films/epa-chief-regan-cancer-alley-louisiana-proposal-toxic-air-emissions-rcna78381; Antonia Juhasz, US Ends Critical Investigation in Louisiana's Cancer Alley, Human Rights Watch (June 29, 2023), available at https://www.hrw.org/news/2023/06/29/us-ends-critical-investigation-louisianas-cancer-alley.

standards are incredibly out of date, ¹⁰¹ and even though Nucor's own modeling predicts certain NAAQS exceedances--in spite of all of this, LDEQ claims there are no problems here. This is in contravention of the requirements that a Title V permit include adequate protections through its monitoring, reporting, recordkeeping, or emission calculation requirements.

3. LDEQ's treatment of startup, shutdown, and malfunction events does not comply with Title V requirements or promote environmental justice

In addition to permitted emissions, Nucor could generate even greater emissions from startup, shutdown, and malfunction ("SSM") events. EPA objected to LDEQ's treatment of SSM events in the proposed permit to no avail. EPA has emphasized that air pollution during startup, shutdown, and maintenance ("SSM") events at industrial facilities has "real-world consequences that adversely affect public health." Excluding emissions during SSM and "upset" events from the BACT limit in a Title V permit violates the CAA. PPA objected to the Nucor permit on these grounds, stating:

Authorizing uncontrolled emissions during upsets associated with bypassing the SulfurOx Unit and exemptions to comply with the BACT limit in the proposed title V permit violates the CAA requirement for emissions standards and limitations to apply continuously, including during startup, shutdown, and maintenance (SSM) events. A mere 'general duty' to minimize emissions during SSM events violates the Act. ¹⁰⁵

LDEQ's response to public comments misrepresented that the proposed permits were revised to remove the allowable emissions associated with upsets and malfunctions. ¹⁰⁶ EPA subsequently objected to the unauthorized emissions that had not in fact been removed from the permit. ¹⁰⁷ LDEQ characterized the remaining allowances for unauthorized emissions associated with bypassing the SulfurOx Unit as "inadvertent." ¹⁰⁸

¹⁰¹ See Steve Hardy, Don't hold your breath: Louisiana waiting on air quality news that could affect business, gas prices, The Advocate (Dec. 9, 2017) https://www.theadvocate.com/baton_rouge/news/business/dont-hold-your-breath-louisiana-waiting-on-air-quality-news-that-could-affect-business-gas/article_7d24eec2-dc3c-11e7-b9ad-a37b7b271e25.html

¹⁰² Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, pp. 5-7.

¹⁰³ 80 Fed. Reg. 33,840, 33,850 (June 12, 2015), available at https://www.govinfo.gov/content/pkg/FR-2015-06-12/pdf/2015-12905.pdf.

¹⁰⁴ ⁴⁰ C.F.R. § 7661c; see Exhibit C EPA Objection Letter to LDEQ regarding Nucor, Objection No. 4.

¹⁰⁵Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, Objection No. 4.; *see Sierra Club v. EPA*, 551 F.3D 1019, 1028 (D.C. Cir. 2008) ("Because the general duty is the only standard that applies during SSM events—and accordingly no section 112 standard governs these events—the SSM exemption violates the CAA's requirement that some section 112 standard apply continuously."); *see also* EPA, State Implementation Plans: Finding of Substantial Inadequacy and SIP Calls to Amend Provisions Applying to Excess Emissions During Period of Startup, Shutdown, and Malfunction, 88 Fed. Reg. 11842, 11845 (Feb. 24, 2023) ("In order to be permissible in a SIP, an emission limitation must be applicable to the source continuously, i.e., cannot include periods during which emissions from the source are legally or functionally exempt from regulation.").

¹⁰⁶Exhibit B, LDEQ's Response to Public Comments. at p. 60, response to comment 49.

¹⁰⁷ Exhibit V, EPA Objection Letter to LDEQ regarding Nucor3, Objection No.. 4.

¹⁰⁸ Exhibit B, LDEO's Response to Public Comments at p. 12.

Even still, in direct violation of the CAA and in contravention of EPA's objections regarding SSM exceptions, LDEQ issued a permit to Nucor that exempts SSM emissions of H₂S from BACT limits for the DRI Unit No. 1 Process Heater.¹⁰⁹ In fact, in the only requirement where LDEQ removed the exception for unauthorized emissions related to SulfurOx bypass events, per EPA's objection, LDEQ also eliminated the hourly emissions standards for H₂S. EPA's Objection language stated clearly that any unauthorized emissions events, including those during SSM events, violate the CAA.

LDEQ's response to public comments and to EPA's objection is wholly inadequate. In sum, LDEQ's response to comments does nothing to change EPA's responsibility to protect the overburdened, low-income communities of color surrounding Nucor from disproportionate adverse impact of air pollution from Nucor by ensuring that the Title V permit at issue here fully complies with the Clean Air Act.

II. EPA MUST OBJECT TO A PERMIT WHEN THE PERMITTING AUTHORITY HAS VIOLATED THE PROCEDURAL REQUIREMENTS OF TITLE V.

LDEQ violated applicable procedural requirements under state regulations and Title V when responding to the EPA's objection to Nucor's proposed air permits by failing to provide opportunity for public notice and comments related to its significant modifications of the Nucor proposed permit. In EPA's objection to the proposed permit for Nucor, EPA itself requested that the LDEQ use enhanced public outreach methods to invite public participation when responding to its objection. But LDEQ did not heed this request. There was no public comment period on the significant modifications, and Petitioners had no opportunity to exercise their procedural rights related to the significant modifications LDEQ made to the Nucor permit. EPA must object to this violation of Title V and state regulatory procedures.

A. Federal and State Law Require Public Notice and Comment for Any Significant Modification to a Major Source Permit.

Federal Part 70 regulation provides for permit issuance "only if" all of the following criteria are met: (1) the permitting authority has received a complete application; (2) the permitting authority has complied with the requirements for public participation, except for modifications qualifying for minor permit modification procedures; (3) the permitting authority has properly notified and responded to affected states; (4) the conditions of the permit provide for compliance with all applicable requirements and all requirements of 40 C.F.R. Part 70; and (5) the EPA has received a copy of the proposed permit and any required public notice, and has not objected to issuance of the permit within the 45-day time period. 111 The Nucor permit does

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¹⁰⁹ See discussion of BACT deficiencies and the inclusion of SSM exemptions, below.

¹¹⁰ Petitioners noted these procedural violations in a letter to EPA during its review period of the revised proposed permit. *See* Exhibit H, Letter from Tulane Environmental Law Clinic on behalf of Myrtle Felton, Gail LeBoeuf, Barbara Washington, Inclusive Louisiana, and Louisiana Bucket Brigade to EPA (Oct. 2, 2023). ¹¹¹ 40 C.F.R. § 70.7(a)(1).

not meet these criteria for several reasons—starting with violations of the requirements for public participation, which apply to any significant permit modification.

Under federal regulations, significant modification procedure requires a permitting authority to provide public notice, an opportunity for public comment, and a hearing on any significant permit modifications. State permitting programs must also provide criteria for identifying significant modifications. Louisiana regulations classify any permit modification as significant unless it qualifies for treatment as an administrative amendment or a minor modification. At a minimum, Louisiana regulations treat as significant any modification under Title I of the Clean Air Act, any "significant change in existing monitoring terms and conditions," and any relaxation of reporting or recordkeeping permit terms and conditions.

Louisiana environmental regulations define "Permit Modification" and "Permit Revision" broadly as any modifications or revisions to a permit, not merely to those made to final permits or between draft and proposed versions of a permit. When a source applies for a permit renewal, modifications in the draft and proposed permits may also be significant modifications subject to public participation.

B. LDEQ Significantly Modified the Nucor Permit and Therefore Should Have Conducted Notice and Comment, But Did Not.

The revised proposed permit contained multiple significant permit modifications, which are subject to mandatory public participation requirements. ¹¹⁸ For instance, in processing

"any physical change or change in the method of operation of a stationary source which increases the amount of any regulated air pollutant emitted or which results in the emission of any regulated air pollutant not previously emitted and which meets one or more of the following descriptions.

- a. The change will result in the applicability of a standard of performance for new stationary sources promulgated pursuant to section 111 of the Clean Air Act.
- b. The change will result in a significant net emissions increase under the *prevention of significant deterioration (PSD) program*, as defined in LAC 33:III.509.B.
- c. The change will result in a significant net emissions increase under the program for Nonattainment New Source Review, as defined in LAC 33:III.504.
- d. The change will result in the applicability of a maximum achievable control technology (MACT) determination pursuant to regulations promulgated under section 112(g) (Modifications, Hazardous Air Pollutants) of the Clean Air Act.

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Id. at § 502.

116 Id.

117 Id.
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¹¹² 40 C.F.R. § 70.4(d)(3)(iv).

¹¹³ 40 C.F.R. § 70.7(e)(4).

¹¹⁴ LA. ADMIN. CODE tit. 33, pt. III, § 527 (2022) ("§527. Significant Modifications A. Significant Modification Criteria 1. Significant modification procedures shall be used for any permit revision needed to incorporate a change which does not qualify as an administrative amendment and does not qualify as a minor modification. 2. At a minimum, any change which meets the following criteria shall require significant modification procedures: a. the change constitutes a Title I modification, as defined in LAC 33:III.502; b. the change constitutes a significant change in existing monitoring terms and conditions; or c. the change is a relaxation of reporting or recordkeeping permit terms and conditions.").

¹¹⁵ Louisiana defines Title I Modification as:

¹¹⁸ 40 C.F.R. § 70.7(h).

Nucor's permit renewal application, LDEQ proposed a separate permit under the prevention of significant deterioration (PSD) program, which contained extensive Title I modifications compared to the air permit that Nucor sought to renew. Nothing in the Louisiana Environmental Regulations exempts a significant modification that was subject to public participation in a draft permit from undergoing the full significant modification procedure in subsequent permit revisions. When a permit modifies one emission limit, its interaction with other permitted emissions could change, so continuous application of significant modification procedure is especially prudent.

The EPA's objection instructed the LDEQ to make certain modifications to the original proposed permit that—if properly implemented—constitute significant modifications. For example, the EPA objected to a lack of monitoring and recordkeeping requirements related to sulfur content in natural gas fuel and iron ore. ¹²⁰ The EPA instructed that LDEQ "must... ensure that the Permit contains sufficient and practically enforceable monitoring and recordkeeping requirements to assure compliance with" federal requirements. ¹²¹ Louisiana's regulations expressly designate any significant change to existing monitoring requirements as significant modifications. ¹²² It follows that imposing monitoring requirements at the EPA's behest should be no exception. Therefore, for LDEQ to respond properly to the EPA objection, it must follow public participation procedure by providing public notice and an opportunity for public commenting in response to such modifications. ¹²³

Although LDEQ did not expressly impose monitoring standards in its revised proposed permit, as the EPA had ordered, it did impose new recordkeeping requirements via revised standards for raw material usage in response to EPA's objection related to sulfur levels in iron ore and natural gas. ¹²⁴ The original proposed permit did not include any requirements regarding the natural gas source. ¹²⁵ In response to EPA's objection, LDEQ modified the permit to require the use of pipeline quality natural gas, which may not exceed 0.5 grains of total sulfur per 100 standard cubic feet. ¹²⁶ Iron ore was limited to 0.05% sulfur content by weight. ¹²⁷ It also imposed recordkeeping requirements for each material. ¹²⁸ Thus, even though the LDEQ did not comply with the EPA's order to impose monitoring requirements, the "significant changes to existing . . .

¹¹⁹ *Id*.

¹²⁰ Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, pp. 6-7.

¹²¹ Exhibit C, EPA Objection Letter to LDEO regarding Nucor, p. 7.

¹²² La. Admin. Code tit. 33, pt. III, § 527.

¹²³ See 40 CFR § 70.4(d)(3)(iv).

¹²⁴ Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, pp. 6-7.

¹²⁵ See Exhibit I, Comparing Original Proposed Permit Specific Requirements at 14 (May 5, 2023) (excerpt) with Revised Proposed Permit Specific Requirements at 13 (Sept. 20, 2023) (excerpt) (adding Specific Requirement 140 to mandate combusting "only pipeline natural gas.".

¹²⁶ Exhibit J, LDEQ Response to EPA's Objection to Proposed Permit No. 3086-V10, p. 13.

¹²⁷ *Id*.

¹²⁸ *Id*.

recordkeeping requirements in the permit" automatically constitute significant permit modifications. 129

LDEQ also significantly modified the permit by eliminating hourly emissions standards for H₂S.¹³⁰ EPA had originally objected to the proposed permit's violation of continuous compliance requirements associated with H₂S emissions.¹³¹ EPA called for permit modifications to "eliminate" the upset events that caused spikes in H₂S emissions, which it attributed to bypasses of the SulfurOx Unit.¹³² The objection also instructed LDEQ to remove any exception for startup, shutdown, and maintenance ("SSM") events because exceptions for SSM events violate the Clean Air Act.¹³³

In response to the EPA objection, LDEQ instead eliminated hourly emissions standards for H₂S entirely, and removed one of the exceptions for SSM events (while retaining another improper exception). ¹³⁴ LDEQ stated that it had "inadvertently failed to revise the emissions limits for H₂S in Specific Requirement 102" after maximum hourly emissions of H₂S were reduced by 216.90 pounds per hour in the previous proposed permit. ¹³⁵ LDEQ, however, failed to justify its deletion of the hourly emissions standard from the specific requirements for the SulfurOx unit's BACT. In its revised Statement of Basis, LDEQ conceded that re-engineering the SulfurOx Unit would not eliminate all bypass events. Thus, spikes from H₂S resulting from SulfurOx bypass events could continue – now unhindered by an hourly emission limitat. And worse still, the specific requirement for H₂S including in Specific Requirement 102 references a 30-day rolling average for emissions – which is nonsensical in a state where ambient air standards are set in 8 hour increments – and allows for bypassing of the SulfurOx unit at any emissions level. ¹³⁶

Eliminating an emission standard, especially after the EPA mandated *more* demonstration of compliance with emission standards, constitutes a significant modification to the permit's terms and conditions. ¹³⁷ The modification's significance is further evidenced by the fact that the LDEQ touted the reduction in hourly emissions for H₂S in its original Basis for Decision, but

¹²⁹ See 40 CFR § 70.7(e)(2) (providing the criteria for minor permit modification procedure). The change does not qualify for administrative amendment procedure, either, because imposing recordkeeping requirements falls outside the definition of "administrative permit amendment." 40 CFR § 70.7(d); see also LA. ADMIN. CODE tit. 33, pt. III, §§ 521, 525 (providing criteria for administrative permit amendments and minor permit amendments, respectively).

¹³⁰ExhibitJ, LDEQ Response to EPA's Objection to Proposed Permit No. 3086-V10, p. 12.

¹³¹ Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, pp. 5-6.

¹³² *Id*. at 5.

¹³³ *Id*.

¹³⁴ See Exhibit J, LDEQ Response to EPA's Objection to Proposed Permit No. 3086-V10, p. 12, see also EQT 0071 Specific Requirements, 90, p. 9 (EDMS Doc No. 13997246, "Title V Regular Permit Renewal/Modification; 3086-V10; DRI," Sept. 20, 2023, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246). (exempting SSM events at the DRI Unit 1 Process Heater from any emissions limits, in disregard of EPA's objection).

¹³⁵ Exhibit J, LDEQ Response to EPA's Objection to Proposed Permit No. 3086-V10 p. 12.

¹³⁶ EQT 0071 Specific Requirements, 102, p. 10 (EDMS Doc No. 13997246, "Title V Regular Permit Renewal/Modification; 3086-V10; DRI," Sept. 20, 2023, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246)

¹³⁷ See LA. ADMIN. CODE tit. 33, pt. III, § 527 (2022).

then removed the Basis for Decision document from its final permit documents. ¹³⁸ Eliminating any type of emissions standard for H₂S is a cause for public concern and should be subject to public notice requirements, which the EPA has alluded to by noting that H₂S can remain in the air for one to forty-two days after being emitted, and H₂S can affect human nervous and respiratory systems. ¹³⁹ Moreover, the BACT for the SulfurOx unit has been stripped down to maintenance of good operational practices and recordkeeping, notwithstanding the lengthy history of H₂S exceedances from this specific unit, its related engineering problems, and the need to limit and control same. Thus, LDEQ significantly modified the Nucor proposed permit and should have followed significant permit modification procedures.

LDEQ, however, did not provide public notice of the significant modifications contained in the revised proposed permit submitted to the EPA. Further, LDEQ waited to make documents related to the EPA objection public on its Electronic Data Management System ("EDMS") for forty-three days, during which LDEQ responded to the EPA objection, EPA reviewed the revised proposed permit and notified LDEQ it had no further objections, and LDEQ issued the final Nucor permit. Indeed, LDEQ submitted its revised proposed permit to EPA for review on August 16, 2023. LDEQ issued the final Nucor permit on September 20, but did not publish the revised proposed permit on its Electronic Document Management System ("EDMS") until September 27—an entire week after it issued the Nucor permit. In fact, LDEQ did not make public any documents related to the EPA's objections until after it had issued the final permit. LDEQ's response to EPA objections, plus a September 19 EPA email indicating there were no objections to the revised proposed permit, became public on EDMS on September 25. At that point, it was too late for the public to participate or even know that a revised permit existed; EPA had already waived further objections. The public did not even have notice of the significant modifications LDEQ made to the permit, let alone any opportunity for public participation before Nucor's permit became operational.

EPA must hold LDEQ accountable for its procedural violations. Petitioners had procedural rights under Part 70 to publicly engage with LDEQ about the revised Nucor proposed permit. EPA's objection created new circumstances that warranted public participation; EPA itself recognized that Nucor has a history of unauthorized emissions, that LDEQ imposed inadequate monitoring, recordkeeping, and compliance requirements, that Romeville and other areas surrounding Nucor are overwhelmingly populated by environmental justice communities, and it *implored LDEQ to use "enhanced public outreach" in responding to the objections*. ¹⁴⁰ EPA must object to the Nucor permit as issued and compel LDEQ to follow proper procedure requirements, and to amend the permit and permit record to demonstrate compliance with all federal and state air permitting regulations.

III. NUCOR'S POOR COMPLIANCE HISTORY SHOULD REQUIRE STRICTER PERMIT REQUIREMENTS UNTIL NUCOR CAN PROVE ITSELF A GOOD NIEGHBOR AND EMPLOYER.

¹³⁸ Exhibit K, Original Basis for Decision for Nucor at 7 (May 5, 2023). The Basis for Decision was obtained via a public records request; it does not appear on the EDMS public database.

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¹³⁹ App'x. E: Agency for Toxic Substances and Disease Registry (ATSDR) Hydrogen Sulfide Fact Sheet, EPA, available at https://www.epa.gov/sites/default/files/2017-12/documents/appendix_e-atsdr_h2s_factsheet.pdf ¹⁴⁰ Exhibit C, EPA Objection Letter to LDEQ regarding Nucor, p. 2.

As Petitioners have previously asserted, LDEQ should require stricter emission regulations due to Nucor's dismal compliance history, as well as strict monitoring and reporting requirements for all limited pollutants. Instead, however, it has issued a permit that eliminated hourly emissions limits, retained SSM exceptions to other emissions limitations, and allowed for upset and bypass events at previously-problematic emissions sources without any mandated reporting. EPA should object to all aspects of the permit that allow for emissions increases, SSM exceptions, and any stack testing, bypasses, or upsets that occur without mandatory public reporting of same, based on this continuous history of excessive emissions. A Title V permit must include compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit; given Nucor's previous compliance history and LDEQ's failure to adequate enforce permit conditions and limits, EPA's decision whether to object or approve this permit must consider whether LDEQ's permit accounts for this history.¹⁴¹

Petitioners have previously provided lengthy details about Nucor's ongoing permit violations in their Comments. ¹⁴² In short, Nucor's use of the SulfurOx unit to prevent sulfur-related emissions has been a failed experiment from the start, and Nucor's other ongoing issues demonstrate the need for strict monitoring and compliance by relevant authorities.

Documents on LDEQ's Electronic Document Management System (EDMS) further demonstrate Nucor's history of noncompliance, which includes everything from relatively minor recordkeeping violations to multiple concurrent emergency dumps of unregulated air emissions for weeks at a time. Some of these enumerated violations include: Nucor's operation of three emergency dumps in 2015 without informing nearby residents, even when such dumps were occurring concurrently for weeks at a time, shad unpermitted releases from Nucor's DRI Reactor on multiple occasions throughout 2015 and 2016 in violation of Louisiana law. Nucor subsequently submitted a permit application to LDEQ on March 23, 2018, that did not address these unlawful emissions, but included a proposed new emissions allowance for Nucor's illegal and unpermitted sulfuric acid emissions. Nucor also reported that its "air quality monitoring station was inadvertently shut down and remained down throughout the year due to confusion over whether it was required or still voluntary on 1/1/2017 through 6/21/2018." Despite this

¹⁴¹ 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1).

¹⁴² Exhibit A, Petitioners' Comments to LDEQ.

¹⁴³ See, e.g. Enforcement; Correspondence to AG; SA-MM-20-0019; Enf.# MM-CN-14-00430, MM-CN-14-00430A; RE: Nucor Steel Louisiana LLC, June 7, 2021 EDMS Doc. No. 12748630, available at https://edms.deq.louisiana.gov/app/doc/view?doc=12748630

¹⁴⁴ *Id.* at 19-20.

¹⁴⁵ *Id.* at 20.

¹⁴⁶ See generally, "Material associated with proposed permits for Public Review; 3086-V6 and PSD-LA-751(M3)," EDMS Doc. No. 11614390, April 26, 2019 (available at https://edms.deg.louisiana.gov/app/doc/view?doc=11614390).

¹⁴⁷ LDEQ, Enforcement; Correspondence to AG; SA-MM-20-0019; Enf. # MM-CN-14-00430, MM-CN-14-00430A; RE: Nucor Steel Louisiana LLC, June 7, 2021 EDMS Doc. No. 12748630, p. 21, available at https://edms.deg.louisiana.gov/app/doc/view?doc=12748630.

admission, Nucor has not been required to perform ambient air quality monitoring or fenceline monitoring since 2018. This new permit continues this trend.

Nucor's June 2021 settlement with LDEQ required twenty-one pages to list out Nucor's self-reported violations over a seven-year period. Also Nucor also self-reported that its facility had emitted 139.53 tons of hydrogen sulfide and 21.26 tons of sulfuric acid mist between 2014 through 2018, which is especially egregious given that its facility had *zero* permitted emissions for either of these pollutants during that time. These violations are the subject of a Consolidated Compliance Order and Notice of Potential Penalty from 2020, which is still pending before LDEQ without resolution. LDEQ has taken a decade to resolve emissions issues from 2014. This makes LDEQ's compliance and enforcement actions unhelpful and irrelevant to the Petitioners.

Likewise aware of Nucor's ongoing issues, EPA inspected the facility in early 2022 and recently issued a Notice of Violation and Opportunity to Confer with twelve separate counts involving, among other things, excessive emissions of NO_x from 2018 through 2022, excessive emissions of sulfur dioxide in 2019 and 2020, excessive emissions of particulate matter, VOCs, carbon monoxide, sulfur dioxide, sulfuric acid, arsenic, barium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, and selenium in 2020 and 2021, failing to operate the continuous emissions monitors (CEMS) for nitrogen oxides, failing to apply BACT for sulfur dioxide, hydrogen sulfide, and sulfuric acid mist, and failing to submit a permit modification application after receipt of the failed stack test results. ¹⁵¹

During Nucor's most recent performance tests, the facility surpassed its limits for multiple pollutants by dramatic margins. Nucor performed stack testing in November 2020 and January 2021. During both tests, Nucor emitted over 100% of its permitted hourly and annual limit for particulate matter, carbon monoxide, sulfur dioxide, sulfuric acid, and a number of heavy metals. Despite Nucor's inability to meet its emissions limits during performance tests, the proposed permit does not require continuous monitoring for any of these pollutants. Rather, the permit raises Nucor's permitted emissions limits for sulfur dioxide, carbon monoxide, sulfuric acid, and many other toxic pollutants. Again, Nucor failed its last two stack tests and is now is being permitted to emit greater amounts of the pollutants it cannot control by LDEQ. EPA should object to this.

Additionally, LDEQ should subject Nucor to more stringent monitoring and reporting requirements given its history of recordkeeping violations, but it has not built in serious

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¹⁴⁸ *Id*. at p. 18.

¹⁴⁹ LDEQ, Consolidated Compliance Order and Notice of Potential Penalty Enforcement, EDMS Doc. No. 12080867 (Feb. 14, 2020), available at https://edms.deq.louisiana.gov/app/doc/view?doc=12080867.

 ¹⁵¹ See Exhibit L, EPA Clean Air Act Notice of Violation and Opportunity to Confer, Nov 3, 2022.
 152 Test for DRI Unit 1 Process Heater (EQT 0069) at pp. 8-11 (November 17 & 18, 2020),, EDMS Doc. ID

^{12746337,} available at https://edms.deq.louisiana.gov/app/doc/view?doc=12746337; Test for DRI Unit 1 Process Heater Stack (EQT 0069), pp. at 8-11 (January 14, 2021), EDMS Doc. ID 12746694, available at https://edms.deq.louisiana.gov/app/doc/view?doc=12746694.

¹⁵³ Title V Regular Permit Renewal/Modification; 3086-V10; DRI, at pp. 3-4 (Sept. 20, 2023) EDMS Doc. No. 13997246, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246

monitoring and reporting requirements into the permit beyond annual stack testing. While annual stack testing is an important new addition to the permit, Petitioners note that Nucor has failed multiple stack tests without consequence. In the face of these repeated failures, EPA should object to this continued reliance on unsupported assurances and mandate actual monitoring and rigorous reporting. These requirements are long overdue and the fenceline communities near Nucor are entitled to know the level of emissions to which they are being exposed.

IV. LDEQ'S PERMIT FOR NUCOR IS IMPROPER AND FAILS TO BE PROTECTIVE OF THE ENVIRONMENT.

Finally, Petitioners urge the EPA to object to the renewal of Nucor's Title V/PSD permit because it fails to be adequately protective of the environment as required by 42 U.S.C. § 7661c and 40 C.F.R. § 70.6 in several specific ways: it relies on inappropriate average emissions factors instead of actual data on emissions to set limits; its specific requirements setting BACT controls for several pieces of emitting equipment are not reasonable; it improperly permits unlimited emissions during SSM conditions as BACT; it ignores EPA's recent guidance on lead emissions when setting new lead emissions limits; it fails to include reasonable and necessary provisions for air monitoring; its unreasonable use of emissions factors has led to emissions increases within decimal points of PSD significance limits; and it ignores modelled NO_x NAAQS violations. As EPA pointed out in its Objections to LDEQ, a fundamental requirement of a Title V permit is that it include all "testing, monitoring, reporting and record-keeping requirements sufficient to assure compliance with the terms and conditions of the permit." ¹⁵⁴ In addition, "the permitting authority shall provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions." LDEO's permit, and its response to Petitioners' Comments and the EPA's Objections, fails to meet both requirements.

AP-42 Emissions Factors: First, with regard to the use of improper emissions factors, Petitioners urge the EPA to object to the renewal of Nucor's Title V permit because it fails to use current emissions from the plant to create limitations and standards. Petitioners submitted lengthy comments regarding LDEQ's reliance on these disfavored estimates; LDEQ responded that the use of these industry-average factors is acceptable. Nucor's first permit was granted in 2011, when the facility was still only a concept. At that point, the use of vendor guarantees, AP-42 emissions factors, and other estimates may have been reasonable. Since its opening in 2013, however, Nucor's air emission standards have continued to be based on estimates and guarantees (not incorporated into the permit) for the plant during its operation. Nucor and LDEQ should now have a decade's worth of data about operational conditions, upsets, problems and emissions. Limitations and standards must be based on actual data from the plant and the threat it poses to the local community. Petitioners objected to the use of AP-42 and other estimates and

¹⁵⁴ 40 C.F.R. § 70.6(c)(1).

¹⁵⁵ 40 C.F.R. § 70.7(a)(5).

¹⁵⁶ This approach has been adopted by Texas Commission on Environmental Quality (TCEQ), which oversees the same industries as LDEQ, in Texas. TECQ's Emissions Inventory Guidelines states that "[i]f valid site-specific data is available, it should be used to determine emissions instead of default values provided by AP-42, software program, process simulators or other emissions determination methods. If default values are used provide

guarantees as insufficient and inappropriate to set emissions limits, and urge the EPA to object to LDEQ's continued reliance on such factors.

Many of Nucor's emissions estimates rely on the EPA's AP-42 Emissions Factors. The EPA has issued an "Enforcement Alert" to express its concerns with the use of AP-42 emissions factors in permitting. Petitioners submitted an expert report from CHANGE Environmental with their original comment to LDEQ on the proposed permit which reviewed Nucor's previous permit application (from July 2020) and details Petitioners' concerns with reliance on AP-42 when creating estimates of emissions rates without consideration of the relative reliability of emission factor ratings, which vary significantly in quality. ¹⁵⁷

LDEQ nonetheless attempts to justify the usage of AP-42 standards for emissions from Nucor's plant but fails to adequately do so when alternatives including actual data from the 2020 and 2021 stack testing, among other data sets reflecting actual emissions for most emissions sources at the site, are available (excluding fugitives).

The EPA has stated that AP-42 emission standards should be used as a tool of "last resort." ¹⁵⁸ In November of 2020, the EPA released an enforcement alert about the misuse of AP-42 standards. The EPA stated that it was "concerned that some permitting agencies, consultants, and regulated entities may incorrectly be using AP-42 emission factors in place of more representative source-specific emission values for Clean Air Act permitting and compliance demonstration purposes." ¹⁵⁹ Emission factors "were simple averages of the rate at which pollutants were emitted from the burning or processing of a given quantity of material. In some cases, emission factors were based on only one or two data points." ¹⁶⁰ The EPA's concerns about the adequacy of AP-42 for setting individual emissions limits are especially relevant here, where Nucor is unique among steel facilities; as EPA itself acknowledged in objections to an air permit for this facility issued in 2011, Nucor's use of the "HYL" process unit was "experimental" technology. ¹⁶¹ Nucor has recently defended itself to LDEQ in light of its ongoing emissions control issues by stating, "[t]he Nucor facility is unique in the fact that it is the only HYL Direct Reduced Iron facility in the United States and is also the largest in the world." ¹⁶² Its unique processes may explain the difficulty Nucor had for years in understanding its own emissions

161 EPA Letter to Tegan Treadaway, LDEQ (Jan. 7, 2011), commenting on the Nucor Title V/PSD air permit, Objection C-2 (p. 6), available at https://www.epa.gov/sites/default/files/2015-07/documents/nucor.pdf

documentation that the default data is representative of the site." TCEQ, 2022 Emissions Inventory Guidelines, p.40; (Jan. 2023), available at https://www.tceq.texas.gov/downloads/air-quality/point-source/guidance/rg-360-22.pdf.

157 See CHANGE Environmental Report, dated May 19, 2021 (attached as Exhibit D to Petitioners' Comment to LDEQ, November 21, 2022, EDMS 13558870, p. 61). The CHANGE Environmental Report reviewed and responded to the July 2020 Permit application materials, but the concerns it raised about the use of AP-42 emissions factors without weighing relative quality and reliability of those factors remains as relevant as it was originally.

158 EPA Reminder About Inappropriate Use of AP-42 Emission Factors, EPA 325-N-20-001 (Nov, 2020)

("Enforcement Alert", p. 3 (noting that "[e]ven then, the facility assumes all risk associated with their use"), available at https://www.epa.gov/sites/default/files/2021-01/documents/ap42-enforcementalert.pdf.

159 Id. at p. 1.

¹⁶⁰ *Id*. at p. 4.

Objection C-2 (p. 6), available at https://www.epa.gov/sites/default/files/2015-0//documents/nucor.pdf
Letter from Calvin Hart, Nucor General Manager, to Madison Kirkland, LDEQ (July 28, 2021), EDMS Doc. ID 12830204, available at https://edms.deq.louisiana.gov/app/doc/view?doc=12830204.

profile, but it does not explain why a population-level emissions factor is appropriate where the population of these facilities in the U.S. Numbers one single facility: Nucor itself.

CEMS, ¹⁶³ stack-testing, ¹⁶⁴ and fence-line monitoring are viable options for setting accurate emissions from Nucor's various point sources and fugitive sources. In comments and hearings, Petitioners and community members have long advocated for fenceline monitoring. LDEQ, however, refuses to mandate them so the EPA must. ¹⁶⁵

Petitioners further object to the use of AP-42 standards for particulate matter measurements. In the EPA's latest forward-looking enforcement initiative, the agency emphasized the importance of creating better air quality in already overburdened communities. The EPA states that enforcement initiatives at the state and federal level will be "based on fenceline monitoring and other sophisticated tools that allow detection of the worst forms of toxic air pollutants." This is currently something that does not exist for Nucor. The facility relies on AP-42 standards, which even in EPA's own terms is not a "sophisticated tool." Fenceline monitoring would be a method of emission control technology that the petitioners would like to see, especially in relation to PM numbers.

BACT Choices for Multiple Emissions Sources Are Improper: Petitioners urged stronger BACT choices or at least explanations of assumptions and claims regarding emissions in their original Comment and Supplemental Comment. Petitioners re-urge those here, noting the following specific issues:

Process Heater/Acid Gas Absorption Vent: In its justification for its BACT selection for
the process heater/acid gas absorption vent common stack, LDEQ states in its Response
to Comments that because Nucor has undertaken reasonable efforts to reduce emissions
from this source (which is not reflected in the letters to LDEQ from Nucor¹⁶⁷), further
monitoring of additional emissions streams via CEMS is not necessary. As Petitioners
raised in their Comments, CEMS and regular stack testing (with built in consequences for
stack test failures) for all emissions streams from the vent would generate accurate,

¹⁶³ See TCEQ, 2022 Emissions Inventory Guidance at 41 ("CEMS generate real-time emissions data 24 hours per day...If CEMS are properly calibrated and operated, they offer the best means of determine a source's emissions in most situations.") (available at https://www.tceq.texas.gov/downloads/air-quality/point-source/guidance/rg-360-22.pdf)

¹⁶⁴ *Id.*, at 43 ("Stack-test data from an identical source at the same site are typically the preferred data for determining emissions over vendor data, material balance, or industry factors when CEMS data, PEMS data, or source-specific stack test data are not available."). (PEMS data is predictive emissions monitoring systems data). ¹⁶⁵ 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1).

¹⁶⁶ Memorandum from David Uhlmann," FY 2024 – 2027 National Enforcement and Compliance Initiatives," EPA (Aug. 17, 2023), pp. 4-5 (stating that "[r]educing air toxics will result in corollary benefits of reducing concentrations of criteria air pollutants such as ozone and particulate matter because HAPs can be comprised of criteria pollutant precursor emissions."), available at https://www.epa.gov/system/files/documents/2023-08/fy2024-27necis.pdf.

¹⁶⁷ See Letter from Calvin Hart, Nucor General Manager, to Madison Kirkland, LDEQ (July 28, 2021), EDMS Doc. ID 12830204, (available at https://edms.deq.louisiana.gov/app/doc/view?doc=12830204).

¹⁶⁸ Exhibit B, LDEO Response to Public Comments, p. 44; 60-61.

operational data to create reasonable permit limits and ensure compliance with those limits.

Hot flare BACT: Petitioners have previously voiced their concerns regarding the BACT decisions reflected thorough out the permit and now ask EPA to object to the specific requirements for BACT for the hot flare (EQT 0071) which EPA previously raised in its objections. LDEO responded to EPA's objection that CEMS and stack-testing are not available using EPA-approved methods, and optical remote sensing is possible but not recommended because, "[c]ontinuous monitoring of the gas stream prior to combustion in the flare is generally the most accurate means of assessing flare emissions." ¹⁶⁹ Nucor has notified LDEQ of non-compliance with the flare in the past; in 2021, Nucor emitted more sulfur oxide than allowed through the hot flare. 170 Nucor had those exceedances when operating under a previous permit that also called for continuous monitoring of the flare – and that was insufficient to ensure compliance. 171 Where Nucor has demonstrated a lack of compliance while already "continuously monitoriong," LDEQ's reliance on this undefined "continuous monitoring" falls short. Moreover, the specific requirements call for temperature to be monitored and recorded, but does not set parameters for that temperature, and calls for the development of a corrective action plan but does not incorporate that plan into the enforceable permit itself. 172

The hot flare specific requirements section also incorporates the understanding that this source will be venting during "start ups, product quenches, shutdowns, and product cooling water deaeration." EPA's concerns about SSM conditions (addressed in further detail below) should be reflected here; unless LDEQ has otherwise limited the emissions during SSM conditions, the venting during such conditions will be subject to no emissions limits and will also be unmonitored. Moreover, emissions are to be calculated using estimates, not measured. EPA should object to this specific requirement.

SSM as BACT: Petitioners have objected to the BACT selections in their Comment, and to the specific requirements with regard to the SulfurOx unit in their Supplemental Comment.

¹⁶⁹ Exhibit J, LDEQ Response to EPA's Objection to Proposed Permit No. 3086-V10, p. 7.

¹⁷⁰ Nucor, 2022 Title V 2nd Semi-Annual Monitoring Report; Title V Air Permit No. 3086-V9; With Deviations, EDMS Doc. 14009093 (submitted 3/28/23), available at https://edms.deq.louisiana.gov/app/doc/view?doc=14009093

¹⁷¹ Title V Regular Permit Modification; 3086-V9, (Hot Flares, specific requirement, p. 51-52), 6/23/2020, EDMS Doc. No. 12252342 (available at https://edms.deq.louisiana.gov/app/doc/view?doc=12252342).

¹⁷² EQT 0071 Specific Requirements, 94, p. 9 (EDMS Doc No. 13997246, "Title V Regular Permit Renewal/Modification; 3086-V10; DRI," Sept. 20, 2023, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246).

¹⁷³ EQT 0071 Specific Requirements, 97, p. 9 (EDMS Doc No. 13997246, "Title V Regular Permit Renewal/Modification; 3086-V10; DRI," Sept. 20, 2023, available at https://edms.deg.louisiana.gov/app/doc/view?doc=13997246).

The selection and enforcement of the BACT is extremely important to ensure compliance with the permitted emissions limits. EPA has already taken issue with Nucor's failure to apply BACT for sulfur dioxide, hydrogen sulfide and sulfuric acid mist emissions in its November 3, 2022, Notice of Violation and Opportunity to Confer. In Count 10 of the Notice of Violation, EPA alleged that Nucor violated LAC 33:III.501.C.4, LAC 33:III.509.J.3, the facility's thenapplicable PSD permits, and the facility's then-applicable Title V permits for failure to apply BACT for each regulated NSR pollutant for which it would result in a significant emissions increase at the source from 2017 through 2022. 174 Specifically, the facility failed to apply BACT for sulfur dioxide, hydrogen sulfide, and sulfuric acid mist emissions by allowing tail gas into the process heater fuel gas system without pre-treatment from July 2014 to the present. Nucor stopped treating tail gas with the "Acid Gas Recovery Unit" in July of 2014, but reasonable precautions were not taken to ensure that the process gas heater fuel gas for EQT0069 was completely pre-treated; thus, the tail gas in the process gas heater fuel gas system was released directly to the atmosphere through the common stack without pre-treatment. ¹⁷⁵ These issues with the failure to monitor emissions streams and to frequently put the SulfurOx unit into a bypass state mean that the BACT selections in the Nucor air permit must be exacting and, wherever possible, either automated or constantly applied.

Excluding emissions during SSM and "upset" events from the BACT requirements in a Title V permit violates the CAA. ¹⁷⁶ EPA objected to the Nucor permit on these grounds, stating:

Authorizing uncontrolled emissions during upsets associated with bypassing the SulfurOx Unit and exemptions to comply with the BACT limit in the proposed title V permit violates the CAA requirement for emissions standards and limitations to apply continuously, including during startup, shutdown, and maintenance (SSM) events. A mere 'general duty' to minimize emissions during SSM events violates the Act. ¹⁷⁷

¹⁷⁴ Exhibit L, EPA Clean Air Act Notice of Violation and Opportunity to Confer, p. 11-12.

¹⁷⁵ Nucor itself has told the LDEQ that it presented a "lean gas" design, aimed at reducing greenhouse gas and other combustion emissions, to LDEQ as part of its original PSD and Title V permit application, but since construction, "Nucor has struggled to achieve the full emissions reductions that it believed the innovate control technologies it proposed would achieve." Further, the facility acknowledged "Nucor's recognition that the innovative controls will not work as originally envisioned." In fact, Nucor has told LDEQ that it will need to develop "improved performance testing practices for the complex stack environment," which do not appear to have been incorporated into the proposed permit. Letter from Calvin Hart, Nucor General Manager, to Madison Kirkland, LDEQ (July 28, 2021), emphasis added, EDMS Doc. ID 12830204, (available at https://edms.deg.louisiana.gov/app/doc/view?doc=12830204)

¹⁷⁶Exhibit C EPA Objection No. 4. see also 80 Fed. Reg. 33842 (June 12, 2015).

¹⁷⁷ Exhibit C, EPA Objection No. 4; *see also* Sierra Club v. EPA, 551 F.3D 1019, 1028 (D.C. Cir. 2008) ("Because the general duty is the only standard that applies during SSM events and accordingly no section 112 standard governs these events the SSM exemption violates the CAA's requirement that some section 112 standard apply continuously."); *see also* EPA, State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy applicable to SIPs; Findings of Substantial Inadequacy; Shutdown and Malfunction, 80 Fed. Reg. 33840, 33976 ("In order to be permissible in a SIP, an emission limitation must be applicable to the source continuously, i.e., cannot include periods during which emissions from the source are legally or functionally exempt from regulation.").

LDEO's response to public comments misrepresented that the proposed permits were revised to remove the allowable emissions associated with upsets and malfunctions. ¹⁷⁸ EPA subsequently objected to the unauthorized emissions that had not in fact been removed from the permit. 179 LDEQ characterized the remaining allowances for unauthorized emissions associated with bypassing the SulfurOx Unit as "inadvertent." ¹⁸⁰

Although LDEQ removed one of the remaining references to SSM in the permit in its response to EPA's objections, it failed to remove them all. In direct violation of the CAA and in disregard of EPA's objection, LDEQ issued a permit to Nucor that exempts SSM emissions of H₂S from BACT limits for the DRI Unit No. 1 Process Heater. ¹⁸¹

NOX: BACT is LNB + SCR to limit NOX emissions to <= 0.007 lb/MM Btu (30-day rolling average, excluding SSM) and to limit such emissions to <= 0.1 lb/MM Btu during periods of SSM when the SCR is not operational. CO and VOC: BACT is operating the process heater using good combustion practices, which shall include monitoring of the flue gas oxygen content, combustion air flow, fuel flow, and flue gas temperature. These parameters must be maintained within the manufacturer's recommended operating guidelines or as established during the most recent performance test. H2S: BACT is the use of the SulfurOx Unit to limit H2S from the combined DRI Unit No. 1 Process Heater/Acid Gas Absorption Vent stream to < 50 ppmvd @ 0% O2 (30-day rolling average, excluding SSM).

The specific requirement above demonstrates that for NO_x, there is a separate emissions limit for SSM periods, yet in the same specific requirement, there is no emissions limit for H₂S during SSM periods and, in fact, emissions of H₂S during SSM periods are excluded from the general emissions calculation. In addition, the hot flare is permitted to vent during start ups and shutdown conditions. 182

EPA's Objection language stated clearly that any unauthorized emissions events, including those during SSM events, violate the CAA. 183 LDEO's response to EPA's objection is wholly inadequate.

LDEQ also revised its specific requirement for H₂S BACT in the SulfurOx unit (Specific Requirement 102) between presenting the proposed permit to EPA and issuing the revised proposed permit (in which time Petitioners were excluded from the process and could not comment or evaluate the alterations in the permit), to remove the requirement that Nucor "minimize bypass of the SulfurOx unit." Nucor premised much of its previous emissions promises on the operations of the SulfurOx unit, yet in the intervening years has increasingly

¹⁷⁸ Exhibit B, LDEQ Public Comments Response to Comment 49 (p. 61).

¹⁷⁹ Exhibit C, EPA Objection No. 4.

¹⁸⁰ Exhibit J, LDEO Response to EPA's Objection to Proposed Permit No. 3086-V10, p. 12.

¹⁸¹ EOT 0071 Specific Requirements, 90, p. 9, EDMS Doc No. 13997246, "Title V Regular Permit Renewal/Modification; 3086-V10; DRI," Sept. 20, 2023, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246.

¹⁸² EQT 0071 Specific Requirements, 97, p. 9, EDMS Doc No. 13997246, "Title V Regular Permit Renewal/Modification; 3086-V10; DRI," Sept. 20, 2023, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246.

¹⁸³ Exhibit C, EPA Objection No. 4.

¹⁸⁴ See Exhibit J, LDEQ Response to EPA's Objection to Proposed Permit No. 3086-V10, p. 12 (showing deletion of this language from specific requirement 102).

operated by bypassing the unit and releasing sulfuric compounds into the atmosphere. Petitioners respectfully request that EPA object to the removal of this specific requirement.

Lead: Petitioners request that EPA object to the permitted lead emission levels due to an increase of over 1000% from the past permits. ¹⁸⁶ As seen in the below table, which Petitioners submitted in their original Comments opposing these emissions increases, lead numbers increased 1233% between the past permit and the current permit. ¹⁸⁷

Pollutant	Before	After	Change	Percent Change
Xylene	0.004	0.080	0.076	1900%
Lead compounds	0.003	0.040	0.037	1233%
Sulfuric Acid	4.700	34.680	29.980	638%
Acetaldehyde	0.013	0.080	0.067	515%
Napthalene	0.005	0.030	0.025	500%
Acrolein	0.002	0.008	0.006	300%
Hydrogen Sulfide	9.770	34.990	25.220	258%
Arsenic (and compounds)	0.001	0.003	0.002	200%
Dichlorobenzene	0.010	0.030	0.020	200%
Cobalt (and compounds)	0.015	0.040	0.025	167%
Manganese (and compound	0.016	0.040	0.024	150%
Beryllium (and compounds)	0.001	0.002	0.001	100%
Selenium (and compounds)	0.001	0.002	0.001	100%
CO2e	1,037,390.000	1,836,750.000	799,360.000	77%
Toluene	0.169	0.260	0.091	54%
Benzene	0.165	0.250	0.085	52%
Mercury (and compounds)	0.002	0.003	0.001	50%
VOC	38.960	57.960	19.000	49%
Copper (and compounds)	0.007	0.009	0.002	29%
SO2	27.070	34.280	7.210	27%
CO	1,051.410	1,099.630	48.220	5%

Figure 3: Percentage Increases in Emissions in Permit 3086-V10¹⁸⁸

The EPA website for its clean air enforcement initiative ¹⁸⁹ is focused on lead, as well as other Hazardous Air Pollutants (HAPs) for ensuring clean air nationally. While the permitted emissions limit for lead is still below the PSD significance limit, this increase in lead emissions is worrisome and begs the question, if the plant has not changed its process, why is there such a dramatic increase in its emissions of lead? A 1200% increase in emissions is statistically large

¹⁸⁹ EPA, "National Enforcement and Compliance Initiative: Creating Cleaner Air for Communities by Reducing Excess Emissions of Harmful Pollutants," available at https://www.epa.gov/enforcement/national-enforcement-and-compliance-initiative-creating-cleaner-air-communities

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¹⁸⁵ See Letter from Calvin Hart, Nucor General Manager, to Madison Kirkland, LDEQ (July 28, 2021), emphasis added, EDMS Doc. ID 12830204, (available at https://edms.deq.louisiana.gov/app/doc/view?doc=12830204) ¹⁸⁶ Exhibit B, LDEQ Public Comments Response to Comment 5 (p. 8), incorporating chart.

¹⁸⁸ Included in Petitioners' Comments to LDEQ, Exhibit A.

and should be of concern in the wider context of total emissions, as well as in the context of understanding why Nucor has increased so many of its HAPs and TAPs emission. Because this type of exposure falls squarely within EPA's lead strategy objective to "reduce exposure to lead associated with emissions to ambient air," Petitioners urge the EPA to consider the impacts of the increasing level of lead exposure to the community of Romeville and to object to LDEQ's dismissal of Petitioners' concerns without explanation or response.

Air Monitoring: Petitioners premised much of their original Comment on the need for air community either in the adjacent community or fenceline. Now, as part of the permit, an air monitor is to be placed in St. James Parish with funding in part from Nucor through its new permit requirements. ¹⁹¹ The location of this monitor still has not been published publicly. However, in a recent parish meeting attended by Petitioners' representatives, a DEQ representative stated that the monitor would be placed across the Mississippi River from the Nucor plant. This monitor will collect emission data from sites across the river and south of Nucor, whereas fenceline monitoring along the Romeville neighborhood would not only give site-specific information concerning Nucor, but provide a clearer image to both LDEQ and the EPA about the emissions that the community experiences on a daily basis. ¹⁹²

Fenceline monitors are also needed due to LDEQ's lack of accurate monitoring in Romeville. In July 2022, LDEQ sent its air mobile monitoring lab (MAML) to Romeville Park to test the National Ambient Air Quality Standards (NAAQS) and Louisiana air standard levels. As the public comments noted, the MAML monitored the air quality in Romeville Park for only five days. ¹⁹³ The comments raised the concerns that this length of time was not adequate to properly test for the emission levels. It also noted the LDEQ failed to test for PM₁₀, NO₂, and ammonia even though it had stated publicly that these compounds would be evaluated. LDEQ's response to this comment is severely lacking. Importantly, the agency agrees that "monitoring for an extended period would be preferable to more completely characterize local air quality." ¹⁹⁴ Fenceline monitoring is needed for constant testing of these levels and would provide a more accurate picture of the plant rather than these five days of testing. This would also provide a better picture of lead emissions as outlined in EPA's lead strategy, discussed above, which

¹⁹⁰ EPA Strategy to Reduce Lead Exposures and Disparities in U.S. Communities, Oct. 2022, p. 35, available at https://www.epa.gov/system/files/documents/2022-10/Lead%20Strategy.pdf

¹⁹¹ UNF 0002 Specific Requirements, 139, p. 13, EDMS Doc No. 13997246, "Title V Regular Permit Renewal/Modification; 3086-V10; DRI," Sept. 20, 2023, available at https://edms.deq.louisiana.gov/app/doc/view?doc=13997246.

at Baton Rouge airport, which they state is thirty-six miles from Nucor. Exhibit B, LDEQ Public Comments Response to Comment 32 (p. 48). However, St. James Parish is not included in the Baton Rouge non-attainment zone for ozone. (*See* EPA, "Louisiana: Baton Rouge Nonattainment Area Intended Area Designations for the 2015 Ozone National Ambient Air Quality Standards Technical Support Document (TSD)", Dec. 2017, available at https://www.epa.gov/sites/default/files/2017-12/documents/la_120d_tsd_final.pdf). This begs the question: If St. James Parish is far enough that ozone numbers in the two areas are unrelated, how is air dispersion modeling different?

¹⁹³ Exhibit B, LDEQ Public Comments Response to Comment 3 (p. 5-6).

¹⁹⁴ *Id*. at p. 6.

emphasizes the need to "coordinate state, local, and tribal surveillance networks to ensure ambient air monitoring near pollution sources." ¹⁹⁵

As Petitioners have previously urged in their Comments, the permit must include a requirement that Nucor conduct fenceline monitoring for sulfuric acid and that the results must be reported in a manner that is publicly available. Sulfuric acid is a dangerous, corrosive toxin, and there is unrebutted evidence that sulfuric acid mist is corroding cars, roofs, and other structures of the communities that border Nucor and may well be impacting their health. Secause people live so near to Nucor and Nucor has repeatedly violated past permit limits, simply placing a limit on sulfuric acid is insufficient. To ensure compliance with that limit, and for LDEQ to satisfy its public trust duty to address mitigating measures that would offer more protection to the environment than the proposed project, LDEQ must add a monitoring requirement for sulfuric acid — on Nucor's fenceline, rather than in a community miles away and across the Mississippi River. Because LDEQ continues to disregard the risk posed to Petitioners from the increased sulfuric acid emissions from this facility, Petitioners respectfully request EPA object to the inadequate monitoring throughout this permit.

As noted in Petitioners' original Comment, there are multiple emissions where the chemicals/compounds are either over the significance level or within decimals of it. ¹⁹⁸ For example, n the Nucor permit, the increase of VOC emissions is 38.37 tons per year while the PSD level is 40 years per ton; i.e., VOC increases are within decimals of passing the significance threshold and this is a company that has gone well over its emission limits in the past years. ¹⁹⁹ Others that are within decimals of the PSD limit are PM_{2.5} and NO_x. ²⁰⁰ As stated above, particulate matter should be measured using fenceline monitoring due to Nucor's storage and health effects on the local community.

NO_x: Petitioners raised problems with the increased NO_x emissions in the permit in their Comments and because they were not addressed by the LDEQ, re-raise them here. NO_x projected actual emissions, based on the methodology that Nucor used, show a projected actual increase of 39.3 tons per year, as can be seen from the chart below. LDEQ's permit documents fail to justify this increase.²⁰¹

¹⁹⁵ EPA Strategy to Reduce Lead Exposures and Disparities in U.S. Communities, p. 36 (October 2022), available at https://www.epa.gov/system/files/documents/2022-10/Lead Strategy.pdf.

¹⁹⁶ Exhibit B, LDEQ Public Comments Response to Comment 11, pp. 14-15.

¹⁹⁷ *Id.*, Comment 11 (pp. 67-71).

¹⁹⁸ Exhibit A, Petitioners' Comments at pp. 10-11.

¹⁹⁹ Exhibit B, LDEQ Public Comments Response to Comment 1 (p.2).

²⁰⁰ See id.

²⁰¹ See 40 C.F.R. § 70.7(a)(5) ("The permitting authority shall provide a statement that sets for the legal and factual basis for the draft permit conditions").

Pollutant	Project Emission ^[1] (TPY)	PSD Significance Levels (TPY)	PSD Review Required	
PM ₁₀	+ 13.98	15	No	
PM _{2.5}	+ 9.40	10	No	
SO ₂	+ 21.51	40	No	
NO _X	+ 39.30	40	No	
СО	+ 444.50	100	Yes	
VOC	+ 38.37	40	40 No	
GHG	+ 1,249,817	75,000	00 Yes	
Pb	+ 0.01	0.6 No		
H ₂ S	+ 30.04	10 Yes		
H ₂ SO ₄ Mist	+ 32.32	7	7 Yes	

^[1] PM_{2.5} and NOx emission increases are based on Baseline Actual Emissions (BAE) to Projected Actual Emissions (PAE) methodology. Emission increases for remaining pollutants utilized BAE to Potential to Emit (PTE) methodology.

Figure 4, Increases In Proposed Permit. 202

Despite this increase in NO_x emissions as proposed, LDEQ determined that NO_x did not need to be modeled in this permit. The briefing sheet instead states that Nucor previously "demonstrated compliance" with the NAAQS for NO_x as described in Permit No. 3086-V6. ²⁰³ But that statement overstates the conclusions reached by LDEQ in the V6 permit; the V6 permit actually showed a violation of the NAAQS for NO_x but Nucor was allowed to continue emitting because it was considered not a significant contributor to that amount of already existing pollution. That is not the same as "demonstrating compliance" with the air quality standards, given that the NAAQS was exceeded. Yet that NAAQS exceedance were reincorporated in every subsequent permit. The 1-hour NO_x standard is 189 micrograms per cubic meter; the modeled NO_x in 2018 was 1,263 micrograms per cubic meter. Yet, in this version of the permit, actual emissions are projected to increase by almost 40 tons per year.

EPA issued a Notice of Violation and Opportunity to Confer to Nucor which found that Nucor exceeded its NO_x emissions limits for 29 days in 2018, 55 days in 2019, 22 days in 2020, 47 days in 2021 and 4 days in 2022. 204 Nucor failed to meet its permit limits, underestimated or erred in its calculations for NOx emissions and failed to model its NO_x emissions; yet the result is a proposed permit with an increase of nearly 40 additional tons emitted per year of NO_x . Petitioners request that EPA object to LDEQ's failure to require dispersion air modeling for NO_x emissions, particularly where the estimated increase is within decimal points of the PSD

²⁰² Included in Petitioner's Comments to LDEQ, Exhibit A.

²⁰³ Nucor Steel Louisiana, LLC, Title V Regular Permit Modification; 3086-V6, Jun. 13, 2019, p.8, EDMS Doc. No. 11715097 (available at https://edms.deq.louisiana.gov/app/doc/view?doc=11715097).

²⁰⁴Exhibit L, EPA Clean Air Act Notice of Violation and Opportunity to Confer, Nov 3, 2022.

significance levels, and reconsider LDEQ's granting of nearly 40 additional tons of NO_x emissions annually, without adequate explanation of support for this increase in the permit documents.

V. CONCLUSION

For the foregoing reasons, EPA must immediately object to the Title V permit for Nucor Steel Louisiana, LLC's DRI Facility in Convent, Louisiana. EPA has a duty to consider environmental justice concerns, and LDEQ completely failed to properly address the environmental justice issues endemic to the area. Further, LDEQ violated applicable procedural requirements by not allowing for public participation after significantly modifying the permit. LDEQ also disregarded Nucor's poor compliance history in its permit-making process and justified emission and BACT limits using irrelevant and inaccurate emissions factors.

Respectfully submitted,

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List of Exhibits

- A) Petitioners' Comments to LDEQ, November 21, 2022
- B) LDEQ's Response to Public Comments Summary
- C) EPA Objection Letter to LDEQ Regarding Nucor, June 16, 2023
- D) EJ Screen Community Report for three-mile ring centered around Romeville
- E) EJ Screen Community Report for St. James Parish
- F) LDEQ Revised Statement of Basis for Nucor
- G) Letter from Drs. Peter DeCarlo and Kimberly Terrell to Dr. Earthea Nance, EPA Region 6 Administrator, November 14, 2022
- H) Letter from Tulane Environmental Law Clinic on behalf of Myrtle Felton, Gail LeBoeuf, Barbara Washington, Inclusive Louisiana, and Louisiana Bucket Brigade to EPA, October 2, 2023.
- I) Comparison of Original Proposed Permit Specific Requirements, May 5, 2023, with Revised Proposed Permit Specific Requirements, September 20, 2023
- J) LDEQ Response to EPA's Objection to Proposed Permit No. 3086-V10
- K) Original Basis for Decision for Nucor
- L) EPA Clean Air Act Notice of Violation and Opportunity to Confer, Nov. 3, 2022