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Via Email (DEQ.PUBLICNOTICES@LA.GOV) and U.S. Mail
Louisiana Department of Environmental Quality
Public Participation Group
P.O. Box 4313
Baton Rouge, LA 70821-4313

RE: Comments on the Application for Minor Source Air Permit for St. Charles Clean Fuels, LLC – Blue Ammonia Facility, St. Rose, St. Charles Parish, Louisiana
Agency Interest No. 236110
Permit Number 2520-00187-00
Activity Number PER 202300001

December 20, 2023

Dear Public Participation Group,

On behalf of Refined Community Empowerment Inc ("Commenters"), we respectfully submit these comments on St. Charles Clean Fuels' ("SCCF") minor source permit application, AI Number 236110, Permit No. 2520-00187-00; Activity No. PER 202300001.

Commenters renew their request for a public hearing on this permit. In addition, Commenters reserve the right to submit additional comments if, as expected and required, the Louisiana Department of Environmental Quality ("LDEQ") announces a formal notice and comment period. Commenters also reserve the right to rely on all public comments submitted to LDEQ relating to the permit (both written and oral comments from the public hearing), request a written response to comments, and request written notification when any action is taken on the proposed renewal.

St. Charles Clean Fuels proposes the permitting of a "blue" ammonia facility in St. Rose, Louisiana, that claims to be a "clean," low emissions project.[1] But the materials actually presented to LDEQ fall far short of those promises. For the reasons discussed below,

[1] Saint Charles Clean Fuels Application to LDEQ, AI No. 236110, EDMS Doc. No. 13839639 at 1-1, Executive Summary (May 25, 2023), available at https://edms.deq.louisiana.gov/app/doc/view?doc=13839639 (hereinafter "SCCF Permit Application").

Refined Community Empowerment Comment in Response to Permit Application for St. Charles Parish Clean Fuels, LLC
December 20, 2023

Commenters object to SCCF's minor source permit application and urge LDEQ to reject it as written because:

1. SCCF appears to violate the Clean Air Act by applying for a minor source permit and foregoing the Prevention of Significant Deterioration ("PSD") and Title V requirements when in fact, it presents insufficient evidence that the facility is a true minor source. Because the facility must comply with several New Source Performance Standards ("NSPS") that trigger automatic Part 70 permit requirements, it should be required to apply for a Part 70, Title V operating permit.[2]

2. SCCF's application likely underestimates emissions of criteria pollutants, calling into question whether it is a true minor source. For instance, the application asserts that the facility will be a "synthetic" minor source of CO and NO_x. But it bases these assertions on the use of AP-42 emissions factors and comparisons to undisclosed similar facilities. According to EPA, "these factors are not likely to be accurate predictors of emissions from any one specific source… if facilities use AP-42 emissions factors as permit limits, facilities increase their chances of violating their short-term permit limits."[3] Additionally, the facility asserts it will employ control technologies to minimize emissions for CO and NO_x that will make the facility a synthetic minor source, but without adequately substantiating those controls.[4] Also, the facility has not fully disclosed the extent to which it may be under the common control of the International Matex Tank Terminal ("IMTT"), a major source with which it proposes to share a site and whose emissions may be relevant to SCCF's emissions.[5] And finally, the facility will be a major source of ammonia in the area. Ammonia is a Toxic Air Pollutant ("TAP") with the potential for serious health impacts at the levels emitted by this facility, in addition to being a substantial nuisance because of its odor.[6]

3. If it approves this permit application as a minor source permit without first balancing the costs to the environment and human health, LDEQ will violate its public trust duty.[7] As a major source of ammonia, a toxic air pollutant, and potentially a major source of criteria pollutants, SCCF will have an enormous impact on the already-overburdened St. Rose community. In particular, the facility will be sited directly next to Elkinsville, a Free Town founded by formerly enslaved people from local plantations after the Civil War and continuously occupied. SCCF has not demonstrated how the benefits of the project will outweigh the costs to human health and the environment, including to the cultural

[2] *See* Argument, A *infra*.
[3] *See* Argument, B(1) *infra; see also* Enforcement Alert: EPA Reminder About Inappropriate Use of AP-42 Emission Factors, EPA (November 2020), available at: https://www.epa.gov/sites/default/files/2021-01/documents/ap42-enforcementalert.pdf.
[4] *See* Argument (B)(2) *infra*.
[5] *See* Argument, (B)(3) *infra*.
[6] *See* Argument, (B)(4) *infra*.
[7] See Argument, (C) *infra*.

resources in Elkinsville, and there is no indication in the LDEQ record that the facility adequately considered alternative sites or sufficient mitigation.

Before issuing any permit to SCCF, LDEQ must:

1. Require additional air dispersion modeling for criteria pollutants, particularly CO and NO_x, as well as ammonia, a toxic air pollutant.[8]
2. Prohibit the complete reliance on AP-42 emission factors in permitting SCCF's Facility and require future source-specific testing and updated emissions factors. Until that time, LDEQ must consider SCCF a major source of CO and NO_x, as opposed to a synthetic minor source.
3. Require SCCF to provide details of the "similar facilities" used for the facility-wide fugitive emission methodology to determine its sufficiency in accurately representing SCCF's fugitive emissions. A sufficient level of detail must be provided to enable an expert to independently reproduce the estimated fugitive emissions.
4. Require SCCF to provide details of the proposed control technologies it plans to use to keep emissions below "major" source status. A sufficient level of detail must be provided to enable an expert to independently review and reproduce the estimated emissions subject to control.
5. Complete a thorough analysis of the health risks from SCCF's ammonia emissions based on current scientific consensus, not on Louisiana's Ambient Air Standard (AAS) for ammonia, which is out of date and no longer supported by science or adequately protective of human health.
6. Require SCCF to provide a complete accounting of shared infrastructure with the IMTT site that serve as potential emission points to determine whether SCCF and IMTT are subject to common control.
7. Perform an adequate, complete environmental justice analysis and include additional monitoring and reporting requirements in the permit, such as fenceline monitoring for ammonia, CO, and NO_x.
8. Perform a comprehensive assessment of the project's potential impacts and require adequate risk mitigation and management measures from SCCF, including automated alarm systems for ammonia releases that will alert neighboring communities and risk mitigation for the proposed carbon capture operations, including adequate infrastructural support for local first responders.

[8] Commenters recognize that SCCF submitted an air dispersion protocol for NO_2 and CO on August 29, 2023. *See* Air Dispersion Modeling Protocol, EDMS Doc. No. 13984918, (Aug. 29, 2023) available at https://edms.deq.louisiana.gov/app/doc/view?doc=13984918. No modeling has yet been completed.

RELEVANT BACKGROUND

On May 25, 2023, St. Charles Clean Fuels, LLC submitted a minor source air permit application to LDEQ for the construction of a "blue" ammonia production facility ("the Facility") in St. Rose, St. Charles Parish, Louisiana.[9] If permitted and eventually built, the Facility would be located within the current International Matex Tank Terminal (IMTT) property, which has operated a crude oil storage and export terminal on the site since 1981.[10]

A. The Proposed SCCF Facility Would Be Built Next To An Historic Environmental Justice Community That is Already Overburdened By Pollution.

The proposed SCCF Facility would be built on the fenceline of Elkinsville-Freetown, a predominantly Black community with a unique and important history.[11] Elkinsville-Freetown was founded in 1880 by Palmer Elkins, a freed slave who formed the "19th Company," a coalition of 19 Black families who founded the community after emancipation, in what was described as a "monumental task."[12] The town was a haven for freed, formerly enslaved people and remains historically emblematic of post-Emancipation resettlement by Black Americans.[13] The community had its own post office, churches, and grocery store and became a thriving, close-knit neighborhood. But this was, in part, because of the discrimination that the community faced outside its bounds. Accounts on St. Charles Parish's own website detail how the community was kept segregated, forced to remain within locked gates from 6pm until 6am, into the 1940s.[14] The persistence of the community, which has been continuously occupied since its founding, is a testament to its people.

This rich cultural heritage could be compromised if residents—descendants of the town's emancipated founders—are forced to move because of an industrial accident or the continued deterioration of environmental conditions. Additional industrial development also threatens the historic structures in Elkinsville-Freetown, which include

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[9] *See* SCCF Permit Application.
[10] *Id*. at 1-1. In fact, the site has been an oil export terminal since 1922 and it was formerly operated by Cities Services Oil Company, which later was renamed Citgo. *See* St. Charles Parish History, St. Rose Town History, available at https://scphistory.org/st-rose-town-history/.
[11] According to the most recent (2021) American Community Survey 5-year estimates from the U.S. Census Bureau, the community closest to SCCF's proposed site (Block Group 1, Census Tract 622, St. Charles Parish), which includes Elkinsville, is 75% Black, available at data.census.gov; *see also* Thibodaux, Anna, A historic move to bring back Elkinsville, *St. Charles Herald Guide* (March 8, 2019), available at https://www.heraldguide.com/lifestyles/a-historic-move-to-bring-back-elkinsville/..
[12] *Id.*
[13] *See, e.g.* A Look Into the History of Elkinsville Subdivision in St. Rose, St. Charles Parish Virtual Museum, available at https://scphistory.org/elkinsville-subdivision-st-rose/.
[14] *Id.*

two churches and a cemetery.[15] The SCCF application fails to acknowledge the history or demographics of the community located just a few hundred feet from its proposed facility.

Residents of St. Rose, and particularly those in Elkinsville, are already overburdened with industrial pollution. According to the most recent EPA data available, the census block group closest to the proposed SCCF site, which includes Elkinsville, has a higher risk of respiratory disease from pollution exposure than 96% of Louisiana residents.[16] The LDEQ regularly receives complaints of noxious odors and associated respiratory symptoms from St. Rose residents.[17] Indeed, residents have been so overwhelmed by noxious petrochemical fumes in the middle of the night that they have had to evacuate and temporarily leave St. Rose.[18]

B. The Proposed Facility Will Have Substantial Air Emissions, Despite its use of Carbon Capture Technologies.

If permitted in accordance with the application, the Facility would produce 8,000 metric tons per day of liquid ammonia.[19] In the course of its annual production, SCCF plans to emit 65.47 tons per year of nitrogen oxide (NO_x), 75.91 tons per year of carbon monoxide (CO), 31.92 tons per year of volatile organic compounds (VOCs), 11.98 tons per year of particulate matter (PM_{10}), 11.98 tons per year of fine particulate matter ($PM_{2.5}$), 0.62 tons per year of sulfur dioxide (SO_2), 1.24 tons per year of hazardous air pollutants, and 59.35 tons per year of ammonia.[20] When fully operational, raw ammonia product will be transported via pipelines and placed within storage tanks before transport offsite via ships at the dock.[21]

Throughout its application, SCCF suggests that the Facility will be "blue," with few air emissions and therefore little environmental impact because of its use of carbon capture and storage ("CCS") technology to reduce greenhouse gas emissions.[22] But as stated in the preceding paragraph, the Facility will in fact generate a lot of criteria and toxic air pollutants in addition to CO2. Also, this claim belies the unproven technologies

[15] Mount Zion Baptist Church, Fifth African Baptist Church, and St. Rose's historic Freetown Cemetery are all in Elkinsville.
[16] *See* EJScreen Report for Block Group 1, Census Tract 622, St. Charles Parish, Downloaded Dec. 1, 2023, attached as Exhibit A.
[17] Complaints to LDEQ regarding odors and problems with the facility's proximity to IMTT are available on EDMS for AI No. 4885 and include EDMS Document Nos. 14066359, 14066357, and 14066355.
[18] *Id.*
[19] SCCF Permit Application at 1-1.
[20] *Id.* at 11, Table 1-1. Emission levels as described here rely on the accuracy of measurements provided in SCCF's permit application, which Commenters contest. As argued below, Commenters believe actual emissions will be higher. *See* Argument, (B) *infra*.
[21] *Id.* at 10.
[22] *See* SCCF Air Permit Application at 1-1.

and the significant health and safety risks that the facility would bring to St. Rose. "Blue" ammonia is a new and relatively unexplored method of producing ammonia, with the first instance of production and shipment in the world occurring just three years ago in 2020.[23] The method retains the use of a fossil fuel (i.e., gas) feedstock in ammonia synthesis,[24] with the use of the term "blue" denoting the implementation of carbon capture technology as an additional step in production.[25]

SCCF plans to implement CCS processes by capturing carbon dioxide at the points of emission and liquifying it for pipeline transport to a designated storage site.[26] Transported carbon dioxide will then be injected into underground wells, called Class VI wells, to prevent atmospheric reentry.[27] Class VI well permits, a component of the EPA's Underground Injection Control ("UIC") program, regulate constructed wells intended to receive injections of carbon dioxide for geologic sequestration in the CCS process.[28]

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[23] *See* World's First Blue Ammonia Shipment Opens New Route to a Sustainable Future, Latest news, Saudi Aramco (Sept. 27, 2020), available at https://www.aramco.com/en/news-media/news/2020/first-blue-ammonia-shipment. Blue ammonia stands in contrast to green ammonia, which is made from renewable energy sources. Blue ammonia retains natural gas in the synthesis process, which is why carbon capture technology is required to reduce the Facility's carbon footprint. *See, e.g.*, Hoe Wai Cheong, The Green and Blue Ammonia Value Chain, Ammonia Energy Ass'n (Aug. 27, 2021), available at https://www.ammoniaenergy.org/paper/the-green-and-blue-ammonia-value-chain/ ("[G]reen ammonia [sic] [is] generated from water electrolysis and blue ammonia [sic] [is] generated from a conventional pathway, using natural gas, but with the addition of carbon capture.").

[24] *E.g.*, EPA, AP-42 CH. 8.1: Synthetic Ammonia 1, available at https://www.epa.gov/sites/default/files/2020-09/documents/b08s01_1.pdf).

[25] *See, e.g.*, Eric Koons, Blue Ammonia Fuel: Uses, Projects, and Future, Energy Tracker Asia (Aug. 17, 2023), available at https://energytracker.asia/blue-ammonia-fuel/.

[26] SCCF Permit Application at 10 ("[The use of] carbon capture technology[] will result in production of ammonia with very low carbon intensity . . . [this] process is able to capture over 99% of the CO_2 generated in the facility for sequestration . . . ."); *see also* Ammonia Looks to Create a Green – and Blue – Future, Insights & Articles, TGS, available at https://www.tgs.com/articles/ammonia-looks-to-create-a-green-and-blue-future#:~:text=Blue%20ammonia%20is%20a%20low,utilization%20and%20storage%20 (last visited Nov. 22, 2023) (detailing the use of CCUS technology in blue ammonia production); What is Carbon Capture and Storage?, Nat'l Grid, available at https://www.nationalgrid.com/stories/energy-explained/what-is-ccs-how-does-it-work (last visited Nov. 22, 2023); Carbon Capture, Utilization, and Storage, U.S. Dep't of Energy, available at https://perma.cc/2Z78-V7UY (last visited Nov. 22, 2023).

[27] *See* Nat'l Grid, *supra* note 26; *Carbon Sequestration Council v. E.P.A.*, 787 F.3d 1129, 1132 (D.C. Cir. 2015).

[28] 40 C.F.R. §§ 146.81-146.95 (2020); *see* Geologic Sequestration of Carbon: Underground Injection Control (UIC) Program Class VI Well Site Characterization Guidance ii (2013), EPA, available at https://www.epa.gov/sites/default/files/2015-07/documents/epa816r13004.pdf ("The Class VI Rule establishes a new class of injection well (Class VI) and sets minimum federal technical criteria for Class VI injection wells . . . .").

However, there are no currently-permitted Class VI wells in Louisiana available for the long-term storage of CCS in the state,[29] and Louisiana does not yet have primacy over the permitting process of Class VI wells.[30] The EPA, which currently controls CCS permitting for well sites,[31] has at least a 24-month process between application and final permit issuance.[32] There is no discussion in the SCCF application about how the Facility would be functionally "blue" in this regulatory and infrastructure environment. What's more, whether or not the facility successfully reduces its CO2 emissions, it will still emit significant amounts of other criteria and toxic air pollutants that will be harmful to the surrounding community.

C. The Proposed Facility Would Require the Construction of Substantial New Infrastructure and Would Repurpose Some Existing Infrastructure.

In addition to substantial air emissions, the Facility will require the construction of a considerable amount of new infrastructure.[33] The SCCF application to LDEQ that is available to the public on EDMS is scant on specifics about construction and how the

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[29] *See* Table of EPA's Draft and Final Class VI well Permits, EPA (last visited Dec. 6, 2023), available at https://www.epa.gov/uic/table-epas-draft-and-final-class-vi-well-permits; *see also*, Philip K. Lau et al., Carbon Capture, Utilization, and Storage: Class VI Wells and U.S. State Primacy, Perspectives & Events, Mayer Brown (June 9, 2023), available at https://www.mayerbrown.com/en/perspectives-events/publications/2022/06/carbon-capture-utilization-and-storage-class-vi-wells-and-us-state-primacy ("Of the more than 700,000 well permits issued under the UIC [Underground Injection Protocol] program to date, only six are for Class VI wells . . . [Currently, there are] two [active] Class VI wells [sic] [sic]. Both are located at the Archer Daniel Midland's ethanol plant in Macon County, Illinois.").

[30] *See* Primary Enforcement Authority for the Underground Injection Control Program-Louisiana, EPA (last visited Dec. 6, 2023), available at https://www.epa.gov/uic/primary-enforcement-authority-underground-injection-control-program-0#Louisiana.

[31] 40 C.F.R. parts 144, 146, 147. The EPA also certifies state programs for UIC purposes. 40 C.F.R. Part 145; *see* 48 Fed. Reg. 14146 (Apr. 1, 1983); 48 Fed. Reg. 39611 (Sept. 1, 1983).

[32] Current Class VI Projects Under Review at EPA, EPA, available at https://www.epa.gov/uic/current-class-vi-projects-under-reviewepa#:~:text=EPA%20aims%20to%20review%20complete,completeness%20of%20the%20submitted%20application (last updated Nov. 13, 2023).

[33] *See generally* SCCF Application for Coastal Use Permit to Louisiana Department of Natural Resources, JPA Attachment ("CUP Application: JPA Attachment"), at 6-7, 13-16 (detailing a general description of construction needs, such as initial activities, path of construction, alternative site configurations, and structures needed for installation), attached as Exhibit B; *see also*, SCCF Application for Coastal Use Permit to Louisiana Department of Natural Resources, Attachment A: Project Description St Charles Clean Fuels Project ("CUP Application: Attachment A"), at 1, attached as Exhibit C. Commenters reference documents submitted to other agencies because of the relatively sparse application packet that SCCF submitted to LDEQ. This illustrates a consistent problem with minor source permitting: without documents from other outside sources, much of the information about the facility would be unknown. If a minor source facility does not need a CUP or other type of permit, there is no other source for necessary information about facility capacity and output required for public understanding of their neighboring polluters.

new Facility would interact with existing IMTT infrastructure. In fact, *there is no site plan* provided in the air permit application, making it impossible for community members or independent experts (or presumably LDEQ) to adequately evaluate the potential impacts of the proposed Facility, including the locations of potential blast zones. Commenters have ascertained the following facts from SCCF's other communications with and applications to local and state agencies.[34]

The Facility would require the construction of two "blue ammonia production trains" for the capture, compression, and transportation of carbon off-site, with each train being a source of emissions because of fossil fuel combustion from its auxiliary boilers and heaters.[35] The two cooling towers and flares also represent distinct emission sources.[36] The blue ammonia production trains, four above-ground ammonia containment storage tanks, and a ship-loading facility would all be connected to a pipeline routing system for ammonia.[37] Two air separation units would provide the blue ammonia trains with oxygen and nitrogen for the ammonia production process.[38]

The Facility would also make use of other infrastructure already present at the IMTT site, though the extent of that infrastructure sharing is unclear from the application to DEQ.[39] This information should have been clearly ascertainable from the public data associated with SCCF's application to LDEQ to permit public review and comment.[40] For instance, it is unclear from these applications whether the aforementioned four containment storage tanks would be newly constructed for the facility, or would make use of IMTT's existing storage tank capacity.[41]

Some IMTT infrastructure would clearly be used by SCCF. For instance, based on information that SCCF provided to the Louisiana Department of Natural Resources ("LDNR"), the Facility would make use of existing IMTT docks for ship loading, which would be modified to accommodate ammonia shipment and carriage.[42] Existing pipe racks for ammonia loading and vapor return piping would be modified to accommodate

[34] *See, e.g.,* Exhibit B, CUP Application: JPA Attachment at 5-6.
[35] *Id.* at 5; SCCF Permit Application at 15. Additionally, a gas pipeline and metering station would supply fuel to the blue ammonia production trains. Exhibit B, CUP Application: JPA Attachment at 5. The blue ammonia production trains would also require a water intake system, two cooling towers, one process gas flare for potential gas releases, and a second ammonia flare for potential ammonia releases. *Id.*
[36] Exhibit B, CUP Application: JPA Attachment at 5.
[37] *Id.* at 6.
[38] *Id.*
[39] *Id.* at 11-15.
[40] *See, e.g.* Air Permit Applications- Minor Source Permit Application Instructions, available at https://www.deq.louisiana.gov/page/air-permit-applications (noting that a map of the site must be included with the application for it to be considered complete).
[41] *See* Exhibit B, CUP Application: JPA Attachment at 5.
[42] *Id.* at 5, 11.

new ammonia piping.[43] SCFF would tie the Facility's utility and gas lines into IMTT's existing infrastructure.[44] The Facility would also tie into IMTT's existing fire water system.[45]

ARGUMENT

A. SCCF Must Comply with Title V/Part 70 Permit Requirements, Including Providing for Public Notice and Comment, Because Several New Source Performance Standards Apply to the Facility.

As a threshold matter, the SCCF application is incomplete and violative of the Clean Air Act because it does not comply with the relevant Part 70 (Title V) permit requirements. By SCCF's own admission, several New Source Performance Standards (NSPS) apply to its proposed facility.[46] SCCF's application admits that it must comply with NSPS for Industrial Commercial Institutional Steam Generating Units, 40 CFR Subpart Db, and for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Subpart III.[47] Yet SCCF's application suggests summarily because the facility "will not exceed the major source threshold for any criteria pollutant" and "will not have HAP emissions of any single HAP greater than 10tpy, and/or and HAP emissions of more than 25 tpy for all HAPs," it is a minor source under Title V and does not have to apply for a Title V permit.[48]

This is not so. The Facility must apply for a Part 70 (Title V) permit because of the NSPS requirements it must meet. All major *and minor* sources are mandated by both the Clean Air Act and Louisiana's air permitting regulations to obtain a Part 70 (Title V) operating permit whenever certain New Source Performance Standards ("NSPS") apply to that facility.[49] Louisiana's own regulations define a Part 70 source to include "any

[43] *Id.* at 11.
[44] *Id.* at 15.
[45] *Id.*
[46] SCCF Permit Application at 18-19.
[47] *Id.*
[48] *Id.* at 18.
[49] NSPS are "standards which apply to specific categories of stationary sources." *See* Demonstrating Compliance with New Source Performance Standards and State Implementation Plans, EPA, available at https://www.epa.gov/compliance/demonstrating-compliance-new-source-performance-standards-and-state-implementation-plans. They are used by the EPA, pursuant to section 111(b) of the Clean Air Act, to define source categories, determine which pollutants should be subject to emission level limits, and identify facilities within each source category covered and which will be subject to those limits. New Source Performance Standards (NSPS) Review, 76 Fed. Reg. 65,653, 65,655 (Oct. 24, 2011) (to be codified at 40 C.F.R. pt. 60); *see also* 42 U.S.C. § 7661(a) ("After the effective date of any permit program approved or promulgated under this subchapter, it shall be unlawful for any person . . . to operate an affected

nonmajor source required to obtain an operating permit pursuant to regulations promulgated under section 111 of the federal Clean Air Act."[50] This mirrors the federal requirement that the Title V regulations apply to "[a]ny source, including an area source, subject to a standard, limitation, or other requirement under section 111 of the [Clean Air] Act."[51] Section 111 of the Clean Air Act grants EPA the authority to issue NSPS for new stationary sources that cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.[52]

The requirement to obtain a Part 70 permit is not an insignificant one. Part 70 permits have more significant enforceable requirements, "including emissions limits, monitoring, recordkeeping, and reporting provisions,"[53] as well as additional procedural requirements including the opportunity for public notice and comment. A Part 70 permit governs all of the specifics of how the source is allowed to operate once it is built and operating. The purpose of the Title V permit is to facilitate compliance and enforcement by "enabl[ing] the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements."[54] In preparing a Title V permit, LDEQ must put into place conditions such as testing, monitoring, reporting, and recordkeeping that are sufficient to "assure compliance" with all applicable Clean Air Act requirements, including emission limits set in PSD permits.[55] SCCF has not complied with any of these requirements. To meet its legal duties, the Facility must submit a substantially revised and more robust set of application materials to LDEQ. Additionally, once those materials are submitted, if LDEQ decides to approve the permit, it must include ongoing conditions like testing, monitoring, reporting, and recordkeeping.

Where, as here, Part 70, Title V requirements apply, LDEQ must provide for public notice and comment under both state and federal regulations. State regulations require that notice shall be published by the permitting authority prior to the issuance of any Part 70 permit which is "the initial permit issued in accordance with a federally approved operating permit program pursuant to LAC 33:III.507."[56] Likewise, federal

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source . . . except in compliance with a permit issued by a permitting authority under this subchapter."); *see also* Who Has to Obtain a Title V Permit?, EPA, available at https://www.epa.gov/title-v-operating-permits/who-has-obtain-title-v-permit (last updated May 24, 2023).

[50] La. Admin. Code 33:III.507.A.1.c.

[51] 40 C.F.R. § 70.3(a)(2).

[52] *See* 42 U.S.C. § 7411(b).

[53] *See* Part 70 (Title V) Permits, LDEQ, available at: https://deq.louisiana.gov/page/part-70-title-v-permits#:~:text=Part%2070%2C%20or%20Title%20V,be%20renewed%20every%205%20years (last visited Nov. 23, 2023).

[54] EPA Operating Permit Program, Final Rule, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992).

[55] 42 U.S.C. § 7661c(a), (c); 40 C.F.R. §§ 70.6(a)(1), (c)(1); LAC 33:III.507.H; *see also* 40 C.F.R. § 70.2 (defining "applicable requirements").

[56] LAC 33:III.531.A.2.a.

regulations require "all permit proceedings, . . . shall provide adequate procedures for public notice including offering an opportunity for public comment and a hearing on the draft permit." 40 C.F.R. § 70.7(h)(1).[57] The permitting authority must respond in writing to all significant comments raised during the public participation process, including any such written comments submitted during the public comment period and any such comments raised during any public hearing on the permit. 40 C.F.R. § 70.7(h)(6). Further, LDEQ must provide the EPA with a copy of the permit application to ensure all necessary information has been provided for LDEQ to process the permit,[58] with that necessary information including comments received during the public participation process and written responses to comments, as well as "an explanation of how those public comments and the permitting authority's responses are available to the public."[59]

B. SCCF Has Not Provided Sufficient Justification for the Treatment of its Facility as a Synthetic Minor Source of Criteria Pollutants, and the Facility's Projected Ammonia Emissions Would Negatively Impact the Surrounding Community's Health and Environment.

SCCF has applied for a synthetic minor source permit. But the Facility's application provides little justification in the record for its emissions estimates.[60] Instead, SCCF relies entirely on AP-42 emission factors and vague methodologies derived from unidentified "similar facilities" or vendor-provided figures. It is impossible to determine whether the estimates provided in the application are accurate, and SCCF has not provided sufficient detail to enable an independent expert (or a regulatory authority) to arrive at the same emissions estimates. Commenters respectfully raise the following concerns, based on the information that was provided in the application.

1. SCCF's facility emission projections are based on problematic, faulty emission factors and ranges that cannot be relied on to grant the permit.

[57] Louisiana regulations explain that the public shall be provided 30 days to offer public comment and shall be given at least 30 days of notice of any public hearings. LAC 33:III.531.A.3.c. Similarly, federal regulations mandate that, "[t]he permitting authority shall provide at least 30 days for public comment and shall give notice of any public hearing at least 30 days in advance of the hearing." 40 C.F.R. § 70.7(h)(4).
[58] 40 C.F.R. § 70.8(a).
[59] *Id.* § 70.8(a)(1).
[60] Commenters note that another "blue" ammonia facility with an application pending before LDEQ proposes to produce half of SCCF's daily ammonia (only 4,300 tons per day, compared with 8,000), and yet has projected significantly higher emissions, especially of CO and NOx. Indeed, the CO estimates are 260.88 tpy, compared with SCCF's 75.91 tpy, and NOx estimates are 224.45 tpy, compared with SCCF's 65.47 tpy. *See* CF Industries Application, AI No. 149544, EDMS Doc. No. 13983987, at 1-1, 5-2. Though there are substantial differences between the facilities, there is enough overlap to raise questions about SCCF's projections.

Because SCCF is proposing the construction of a new facility, it relies on emissions factors to estimate its potential emissions. First, SCCF asserts that the facility will qualify for minor source permitting of all criteria pollutants on the basis of AP-42 emission factors,[61] a measuring scheme reliant on average emission rates. Reliance on average numbers is not a reliable way to establish enforceable emissions limits, and synthetic minor source limits are only valid if they are enforceable.[62]

The EPA has issued an Enforcement Alert on the use of AP-42 emission factors, emphasizing that because these factors are based on data averages from multiple, similar sources, they are unlikely to be useful predictors of specific source emissions.[63] While finding that AP-42 emission factors are "helpful in making emission *estimates* for area-wide inventories for specific source types," the EPA discourages the use of AP-42 emission factors in source-specific permit limits.[64] This is because emission factors represent an average of a range of emission rates, meaning that half of subject sources will have emission rates greater than the emission factor while the other half will have emission rates below the factor.[65] "As such, a permit limit using an AP-42 emission factor would result in half of sources being in noncompliance[,]" according to the EPA.[66] SCCF's reliance on these emission factors casts doubt on the accuracy of its entire proposed modelling scheme, both for emissions of pollutants that would qualify for minor source permitting and for those pollutants, CO and NO_x, that would hypothetically be over the major source threshold but, because of control technologies, will qualify for synthetic minor source permitting.

In SCCF's permit application, estimates for $PM_{2.5}/PM_{10}$, SO_2, CO, and VOC for natural gas and process streams for the fired heaters all rely on AP-42 emission factors.[67] For the Facility's auxiliary boilers, AP-42 factors are also used for $PM_{2.5}/PM_{10}$, SO2, and CO emissions.[68] For its flare system, which includes continuous flare pilots and purges,

[61] SCCF Permit Application at 15-17, 83-84, 86, 89, 91, 94, 96-97, 103, 106, 108-09.
[62] Synthetic minor source limits may only be considered valid and as part of the PTE calculation if they are "enforceable as a practical matter" *In the Matter of Kentucky Syngas, LLC*, Order on Petition No. IV-2010-9, at 30 (E.P.A. June 22, 2013), available at https://www.epa.gov/sites/production/files/2015-08/documents/kentuckysyngas_response2010.pdf.
[63] EPA Reminder About Inappropriate Use of AP-42 Emission Factors 1, EPA (2020), available at https://www.epa.gov/sites/default/files/2021-01/documents/ap42-enforcementalert.pdf.
[64] *Id.*
[65] *Id.* (citing EPA, Compilation of Air Pollutant Emissions Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition 2 (1995)).
[66] *Id.* at 2.
[67] SCCF Permit Application at 15, 83 ("The PM2.5/PM10, SOz, CO, and VOC emission factors for natural gas and process gas streams have been obtained from U.S. EPA, AP-42, Section 1.4 Natural Gas Combustion, July 1998.").
[68] *Id.* at 16.

SCCF relies on AP-42 emission factors for $PM_{2.5}$, SO_2, CO, NO_x, and VOC.[69] Emergency engine emissions for SO_2 are also based on AP-42 emission factors.[70]

Particularly concerning is SCCF's reliance on AP-42 emissions factors for its CO and NO_X emissions, which it suggests will be 75.91 tons per year and 65.47 tons per year, respectively, because of the use of certain control technologies, discussed in greater detail below.[71] This places these emissions below the 100 tpy threshold for major source permitting, qualifying the Facility for consideration as a synthetic minor source.[72] Where a source is classified as major for the emissions of some criteria pollutants, but voluntarily submits to controls that reduce its Potential to Emit ("PTE") below that major source threshold, it may qualify for a synthetic minor permit.[73] PTE limitations need to be enforceable as a practical matter to be considered valid, and consequently must be representative of worst-case emissions, rather than an average of measured emission rates.[74] There must be "terms and conditions" that require a source to effectively constrain its operations so as to not exceed the relevant emissions threshold.[75] These terms and conditions must also be sufficient to enable regulators *and citizens* to determine whether the limit has been exceeded and, if so, to take appropriate enforcement

[69] *Id.* at 16, 89, 91, 93, 97-98.
[70] *Id.* at 17.
[71] *Id.* at 11. Commenters recognize that SCCF has submitted an air dispersion modeling protocol for CO and NO2. *See* fn 8 *supra.* But no dispersion modeling has yet been completed for its application.
[72] *See id.*
[73] 40 C.F.R. § 49.152 ("Synthetic minor source means a source that otherwise has the potential to emit regulated NSR pollutants in amounts that are at or above those for major sources in § 49.167, § 52.21 or § 71.2 of this chapter, as applicable, but that has taken a restriction so that its potential to emit is less than such amounts for major sources. Such restrictions must be enforceable as a practical matter."); *see also* EPA Should Conduct More Oversight of Synthetic-Minor-Source Permitting to Assure Permits Adhere to EPA Guidance 1, EPA Office of Inspector Gen., (2021), available at https://www.epa.gov/system/files/documents/2021-07/_epaoig_20210708-21-p-0175.pdf ("Synthetic-minor sources, which are facilities that have the potential to emit regulated pollutants at or above major-source thresholds but that agree to enforceable restrictions to limit their emissions below these thresholds to avoid being subject to more stringent major-source requirements. Such enforceable restrictions, also called limitations, are included in a facility's air permit.").
[74] *Id.* at 8 ("Practical enforceability is key to permitting because it helps assure that a permit's provisions are written in such a way that regulators and citizens can assess a facility's compliance with its permit limitations."); EPA, Accounting for Emergency Generators in the Estimate of Potential to Emit 2 (2006) ("[T]o determine PTE, a source must estimate its emissions based on the worst-case scenario taking into account startups, shutdowns and malfunctions.").
[75] *In the Matter of Orange Recycling & Ethanol Prod. Facility, Pencor-Masada Oxynol*, Order on Petition No. II-2001-05, at 7 (E.P.A. Apr. 8, 2002), available at https://www.epa.gov/sites/production/files/2015-08/documents/masada-2_decision2001.pdf; *In re Piedmont Green Power, LLC,* Order on Petition No. IV-2015-2 at 14 (E.P.A. Dec. 13, 2016), available at https://www.epa.gov/sites/default/files/2016-12/documents/piedmont_response2015.pdf.

action.[76] Usually, this requirement must go beyond limiting emissions to constrain *actual operations*, including accompanying monitoring, recordkeeping, and reporting requirements.[77] Because these factors are based on average emissions, AP-42 emissions factors do not accurately reflect worst-case scenario emissions.

SCCF also likely underestimates its potential flare emissions by relying on AP-42 emissions factors to assume that its flare system will operate at a destruction and removal efficiency of 98% in decreasing pollutant emissions via combustion.[78] Continuous streams from the Facility's flare system include natural gas, while intermittent streams include "natural gas, hydrogen, partially reformed gas, flare gas, carbon dioxide and hydrogen, and flare gas (hydrogen)."[79] SCCF also specifies emissions of $PM_{2.5}$/PM_{10}, SO_2, CO, NO_x, VOC, CH_4, and N2O released from the Facility's flare system.[80] Exaggerated destruction efficiency rates for flares is common; one study presented evidence that destruction efficiencies for flares measuring methane emissions from gas processing plants and other natural gas operations averaged around 91%, despite processing plant operators assuming an average destruction efficiency rate of 98%.[81] Further, even small percentage errors in destruction efficiency estimates can produce emission discrepancies with profound impacts.[82] These destruction efficiency estimates for flaring activity are of dubious quality, like those used in AP-42.

SCCF's reliance on Texas Commission on Environmental Quality (TCEQ) guidance and use of emission factors derived from an unknown "similar facility" also inspire skepticism. For instance, SCCF relies upon TCEQ guidance in its permit application to estimate that 0.5% of inlet ammonia is converted to NO_x.[83] This is a misreading of the TCEQ guidance, which actually states that the percentage weight of NO_x in ammonia is subject to case by case review, and uses the 0.5 wt percent figure as an assumption for its sample calculations in the guidance demonstrating how to calculate NO_x emissions: "NO_x is 0.5 wt percent of inlet NH_3 in the sample calculations. The actual conversion of ammonia and other fuels to Fuel NO_x are subject to case-by-case

[76] *Id.* (emphasis added)
[77] 40 C.F.R. 49.158 (a)(1)(ii)(B); *see also Orange Recycling* at 7 (emphasis added).
[78] Permit Application at 89, 91, 93, 96-97, 101, 103.
[79] *Id.* at 16.
[80] *Id.* at 16-17.
[81] Genevieve Plant et al., Inefficient and Unlit Natural Gas Flares Both Emit Large Quantities of Methane, 377 SCI. 1566, 1566 (2022), available at https://www.science.org/doi/10.1126/science.abq0385, attached as Exhibit E.
[82] Patrick Anderson et al., Advocates' Guide to Effective Participation in Environmental Permit Proceedings For New Petrochemical Facilities 77 (2023) ("[I]f a flare with an assumed destruction efficiency of 99% emits 10 tons of VOCs per year, that same flare with an actual destruction efficiency of 95% will instead emit 50 tons of VOCs!"), available at https://labucketbrigade.org/wp-content/uploads/2023/09/FINAL-Petrochemical-Guide-8_30_2023.pdf.
[83] SCCF Permit Application at 92, 99.

review. . . . NH_3 to fuel NO_x conversion is subject to case-by-case review." [84] At no point does TCEQ suggest that this estimate of percentage weight is reliable or reasonable; it is merely a placeholder in sample calculations. Depending on the actual quantity by weight of NO_x in ammonia, the NO_x emissions could be pushed over the major source threshold.

SCCF's application also heavily relies on unnamed "similar facilities" as sources for emissions estimates without substantiating those claims. For facility-wide fugitive emissions, SCCF first states that its permit application "proposes the use of engineering judgment to estimate the preliminary component counts and fluid service types of equipment components at the SCCF ammonia facility," informed by SCCF's methodology for estimating emissions which are based "similar ammonia facilities in Louisiana."[85] SCCF provides no further details of its facility-wide fugitive emission calculation methodology other than claiming that review of the aforementioned "similar ammonia facilities in Louisiana" is further considered by "adjusting the emissions based on production."[86] SCCF later applies this unspecified methodology in providing annual emission rates for VOC, CO, and NH_3, again asserting that "[e]missions are based on similar facilities['] fugitive emissions and ammonia production."[87] SCCF does not name which ammonia production facilities inform this methodology, nor how these facilities are determined to be sufficiently similar to its own project as to justify comparison and inclusion in said methodology.[88] Further, SCCF provides no details as to how emissions from these similar facilities were "adjusted" so as to be pertinent in estimating the emission rates of its own Facility.[89] Again, this lack of detail makes it impossible for an independent expert, or LDEQ, to validate SCCF's emissions estimates.

SCCF again alludes to an unnamed similar facility for the purposes of devising NO_x emission factors throughout its permit application; every instance of this pertained to the Facility's NO_x emissions from auxiliary boilers and fired heaters.[90] It is also unclear whether the facility referenced here is one that informed SCCF's aforementioned facility-wide fugitive emission methodology, and like in that methodology, whether emission

[84] Tex. Comm'n on Envtl. Quality Air Permits Division, New Source Review (NSR) Emission Calculations 3, 8 (Rev. Mar. 2021), available at https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/emiss_calc_flares.pdf.
[85] SCCF Permit Application at 17.
[86] *Id.*
[87] *Id.* at 112.
[88] *Id.* at 17-18.
[89] *Id.*
[90] *Id.* at 83, 85-86 (stating, *e.g.*, NO_x emission factors for continuous stream hydrogen activity associated with SCCF's auxiliary boiler were "obtained from [a] similar facility" at 83; and NOx emission factors for intermittent stream natural gas activity associated with SCCF's auxiliary boiler were "obtained from [a] similar facility." *Id.*).

rates from this "similar facility" needed be "adjusted" to provide emission factors SCCF considers acceptable for emission factor purposes.[91]

2. SCCF's reported controls to secure synthetic minor source status are insufficient to demonstrate actual limitations on criteria pollutants.

SCCF has yet to establish a basis for the treatment of its Facility as a synthetic minor source, as it has not provided adequate indications it has submitted to controls that would effectively curtail its emission rates. SCCF seeks to justify its status as a synthetic minor source by limiting of NO_X and CO emissions through the following technologies, respectively: (a) the inclusion of Selective Catalytic Reduction (SCR) on fired heaters and boilers, and (b) the inclusion of Catalytic Oxidation on fired heaters and boilers.[92]

The permit application, however, does not say anything about how these technologies would be employed to reduce NO_x and CO emissions.[93] The application notes only that "The CO emissions from the heaters are proposed to be controlled by oxidation catalyst. Therefore, the CO emissions are quantified based on 80% control efficiency. The NO_x emissions from the heaters are proposed to be controlled by selective catalytic reduction (SCR) and the emissions are quantified based on a vendor-provided emission factor of 0.0044 lb/MMBtu."[94] These statements summarily conclude the result without providing substantiation for how it is achieved. For the CO emissions, the 80% control efficiency number is entirely unsubstantiated. For the SCR, there is no mention of limitations, such as operational conditions, on the vendor-provided emissions factor that might affect this result. Additionally, there does not appear to be documentation of the vendor-provided factor in the application such that LDEQ or an expert reviewing these calculations could verify the SCR factor.

There is also no transparency around monitoring, recordkeeping, and reporting requirements. For regulators and citizens alike, it would be unclear whether the facility exceeded these synthetic limits. This is especially concerning because these control

[91] It is noteworthy that the TCEQ Guidance, upon which SCCF purports to rely, disapproves of pure estimates from other facilities as emissions factors and rates them below all other potential methods, including vendor-supplied emissions factors, AP-42 emissions factors, and scientifically calculated emissions factors. *See* Tex. Comm'n on Envtl. Quality Air Permits Division, 2022 Emissions Inventory Guidelines 100-01 (2023), available at https://www.tceq.texas.gov/downloads/air-quality/point-source/guidance/rg-360-22.pdf.
[92] Email from Sharon Killian, Trinity Consultants on behalf of SCCF in the permitting process, to Sonya Eastern, LDEQ (June 7, 2023), attached as Exhibit F (confirming the technologies the Facility would use as a minor source), produced September 26, 2023 in response to Commenters' Public Record Request No. 0103733 to LDEQ; *see also* Saint Charles Clean Fuels Air Dispersion Modelling Protocol for Criteria Air Pollutants to LDEQ, EDMS, AI No. 236110, Doc. No. 13984918 (Aug. 29, 2023), available at https://edms.deq.louisiana.gov/app/doc/view?doc=13984918.
[93] *See generally* SCCF Permit Application.
[94] *Id.* at 16.

technologies are the reason that this permit is considered a minor source, and therefore does not have to meet the more stringent requirements of PSD and Title V permitting that attach to major source permit applications.[95] As such, these projections are unreliable without additional substantiation, and SCCF's intention to be classified as a synthetic minor source remains untenable based on overly optimistic emissions factors and estimates, and indeed raises the question of whether the Facility would be more appropriately classified as a major source. [96]

3. LDEQ must undertake an analysis to ascertain whether SCCF and IMTT are under common control for purposes of determining whether the Facility should be treated as a major or minor source.

In its amended permit application, SCCF made revisions to include IMTT in portions relevant to its air emissions, raising questions of common control between SCCF and IMTT that LDEQ must address.[97]

Questions of common control that arise under New Source Review pre-construction permits are assessed as "source determinations," and are made on a case-by-case basis.[98] The EPA's policy for making source determinations in questions of common control focuses on a "common sense notion of a plant," where a determination of common control hinges on the authority of one entity to dictate decisions to another entity "that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements."[99] "Control" for the purposes of source determinations "requires more than the ability to influence another entity's decision, [but] effectively removes the autonomy of the controlled entity to decide whether or how to pursue a particular course of action."[100]

While it is not clear from these materials how extensively SCCF and IMTT will be participating in a shared use of infrastructure, workforce, or day-to-day operations, SCCF materials pertaining to its Facility's infrastructure needs and logistics indicate that, at the minimum, SCCF will be making use of IMTT's loading docks, pipelines, and pipe

[95] However, commenters note that Title V/Part 70 permit requirements are in fact triggered for this application because of several NSPS standards that apply. *See* Argument, Part A *supra.*
[96] As previously discussed at fn 60, recent applications submitted by facilities producing even smaller volumes of ammonia but projecting higher emissions raise questions about the accuracy of these projections.
[97] *See* SCCF Revised Section 21 to LDEQ, AI. No. 236110, EDMS Doc. No. 13901393 (July 19, 2023).
[98] Letter from William L. Wehrum, E.P.A. Assistant Adm'r, to Hon. Patrick McDonnell, Sec'y, Pa. Dep't of Env't Prot. at 1 (Apr. 30, 2018) ("EPA Common Control Policy Letter"), available at https://www.stradley.com/-/media/files/publications/2018/05/signed-letter-to-the-honorable-patrick-mcdonnell-oar180006938-pdf.pdf?rev=9fbf65cf25ed40b69fc7a21789830861
[99] *Id.* at 2.
[100] *Id.* at 7.

racks, which will be refitted to meet SCCF's particular needs.[101] These shared pieces of infrastructure likely also represent emission points, given IMTT's own air permitting materials treating them as such.[102]

Determining whether SCCF and IMTT are formally under common control requires LDEQ to make a three-step inquiry.[103] First, LDEQ must consider whether SCCF and IMTT belong to the same industrial grouping.[104] SCCF's primary SICC number is 2873.[105] Second, LDEQ must consider whether SCCF and IMTT are located on one or more contiguous or adjacent properties.[106] This question is answered simply in the affirmative – SCCF itself refers to the Facility as being developed adjacent to the IMTT facility,[107] with the land in question being leased by IMTT to SCCF.[108]

Third, LDEQ must consider whether SCCF and IMTT are under the control of the same person or persons which, as previously stated, is a question of how much autonomy a facility possesses. The EPA has stated that questions material to determining the presence of control include whether either entity has "the power of authority to guide, manage, or regulate the pollutant emitting activities of those facilities," whether either entity has "the power to make or veto decisions to implement major emission-control

[101] "IMTT loading dock[s] [sic] [will be fitted] with new loading pumps and loading arms to facilitate ammonia product loading to ships." Ex. B, CUP Application: JPA Attachment at 5. "Pipeline and pipe racks exist that could be added to or modified to carry the [ammonia] product." *Id.* at 12.
[102] LDEQ Air Permit Briefing Sheet for IMTT ("IMTT Air Permit Briefing Sheet"), AI No. 4885, EDMS Doc. No. 12255408 (July 2020).
[103] *See* 42 U.S.C. § 7661(2) (Title V statutory definition); 40 C.F.R. §§ 70.2 & 71.2 (Title V regulations); 40 C.F.R. §§ 52.21 (b)(5) & (6). 51.165(a)(1)(i) & (ii), and 51. 166(b)(5) & (6) (NSR regulations). These standards apply for both major source under the operating permit program under title V of the CAA and for stationary sources under the NSR pre-construction permitting program. *See generally* Exhibit D, Letter from William L. Wehrum, E.P.A. Assistant Adm'r, to Hon. Patrick McDonnell, Sec'y, Pa. Dep't of Env't Prot. (E.P.A. Common Control Policy Letter) 1 (Apr. 30, 2018), *available at* https://www.epa.gov/sites/production/files/2018-05/documents/meadowbrook_2018.pdf.
[104] *Id.*
[105] SCCF Permit Application, Appx A at 2. Commenters believe that the last reported Primary SICC number for IMTT was 4226. *See* IMTT Title V Modification, AI No. 4885, EDMS Doc. No. 10333429 (Sept. 9, 2016). However, it is not clear whether this is still the primary or the only industrial grouping number for IMTT.
[106] *See* Ex. D, EPA Common Control Policy Letter.
[107] SCCF Permit Application at 10 ("The SCCF Blue Ammonia Facility will be located on a 230-acre site on the east side of the Mississippi River adjacent to the existing International Matex Tank Terminal [sic] St. Rose site.").
[108] *E.g.*, St. Charles Clean Fuels Proposes $4.6 Billion Reduced-Carbon Ammonia Facility in St. Rose, La. Econ. Dev. (Apr. 19, 2023), available at https://www.opportunitylouisiana.gov/led-news/news-releases/news/2023/04/19/st.-charles-clean-fuels-proposes-$4.6-billion-reduced-carbon-ammonia-facility-in-st.-rose.

measures," whether either entity may dictate production in terms of quantity, and whether either entity may dictate the other to comply with environmental regulations.[109]

There is scant detail in the SCCF application about the extent to which the two facilities will be working together. The use of IMTT's existing docks by SCCF represents a potential instance of one entity, namely IMTT, having the power or authority to regulate the activities of SCCF.[110] Further, as a site of emissions per IMTT's own air permit, it likely represents a site of pollution-emitting activity for both entities.[111] While details on the specifics of SCCF's activities at these docks are sparse, IMTT, the administrator of this existing dock, will likely have ultimate control of dock operations, from which it could be inferred that IMTT might have authority to "guide, manage, or regulate the pollutant emitting activities" of SCCF's facilities.[112] LDEQ should carefully consider the likelihood of IMTT having even a minimal administrative hand in SCCF's dock and loading activity, and the consequent impact such an involvement would represent in IMTT's authority for determining common control.

SCCF intends to make use of four ammonia storage tanks at the Facility in its production process.[113] It is not apparent to Commenters whether those tanks will be constructed and maintained by SCCF itself, or if SCCF will be making use of IMTT's extensive storage tank infrastructure already available at their respective facility.[114] This is especially concerning where IMTT has had serious recent accidents related to its tanks.[115] This lack of clarity itself represents the overriding flaw in SCCF's application: a plain lack of information from which the public could ascertain the proposed scope of the shared infrastructure. Regardless, if those storage tanks are ultimately IMTT's, and arranged for use by SCCF, they would likely represent another instance of IMTT possessing the authority to "guide, manage, or regulate the pollutant emitting activities" of SCCF in a manner that limits its autonomy.[116]

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[109] Ex. D, EPA Common Control Policy Letter at 4 (citing Memorandum from John S. Seitz, Director, OAQPS, to EPA Regional Offices, Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act, 9-10 (Seitz Memorandum) (August 2, 1996), available at https://www.epa.gov/sites/default/files/2015-08/documents/dodguid.pdf).
[110] Ex. B CUP Application: JPA Attachment at 11.
[111] IMTT Air Permit Briefing Sheet at 1.
[112] Ex. D , EPA Common Control Policy Letter at 4 (citing Seitz Memorandum at 9-10).
[113] *See* Ex. C CUP Application: Attachment A at 1.
[114] *See* SCCF Permit Application at 10; Ex. B CUP Application: JPA Attachment at 4, 15.
[115] *See, e.g.* Fire Reported at IMTT chemical storage facility in St. Charles Parish, WWLTV (April 3, 2023) available at https://www.wwltv.com/article/news/local/st-charles/fire-imtt-st-charles-parish/289-2a24016a-bb02-4d48-9dc3-2fc2b518bc47; *see also* International-Matex Tank Terminal Inspection Report, E.P.A. Region 6 – Enforcement & Compliance Assurance Division (July 10-13, 2023).
[116] Ex. D at 4 (citing Seitz Memorandum at 9-10).

IMTT's role as SCCF's service operator for its terminal access likely indicates an authoritative role over SCCF's production, storage, and distribution capabilities.[117] For example, if IMTT, in administration of its terminal, limits SCCF's access or imposes quotas on its use, IMTT would be exerting authority over SCCF, potentially controlling its ammonia production, an obvious source of emission for SCCF. IMTT exerting authority over SCCF's ammonia production would be especially apparent where SCCF relies on IMTT in its service operator role as the primary source of off-site ammonia transport.[118] LDEQ must carefully inspect the overlap between these two facilities to determine whether the full scope of emissions between the two has been properly accounted for, and whether they are functionally operating under common control.

Even if not formally under common control, LDEQ must consider whether SCCF's use of IMTT's infrastructure will cause IMTT to emit more than its permitted emissions, especially with respect to fugitive ammonia emissions. IMTT's air permit allows for 2.89 tons per year of ammonia, 650.22 tpy of NO_x and 432.75 tpy of CO.[119] Where SCCF's use of this infrastructure causes IMTT to emit above its permit limit, LDEQ must consider whether these increased emissions are attributed to SCCF or IMTT so as not to be undercounted. This is particularly important for any emissions that are not directly monitored but are estimated using emissions factors or other means.

4. The proposed Facility would be a major source of ammonia emissions, and the applicant relies on an outdated and meritless ammonia standard to dismiss the substantial impact of ammonia emissions on human health.

Although applying for a minor source permit, SCCF's proposed ammonia facility is admittedly a major source of Louisiana Toxic Air Pollutants (TAPs), producing 59.35 tons per year—five times the major source threshold—of ammonia, a TAP under LAC 33:III § 5103.[120] SCCF asserts in its permit application that air quality dispersion modeling conducted for its proposed facility predicts an expected ammonia air concentration of 246.39 ug/m^3.[121] Assuming this figure is an accurate accounting of the

[117] Ex. B, CUP Application: JPA Attachment at 14.
[118] *Id.* at 13 ("IMTT is an experience[d] tank terminal provider . . . and will operate the ammonia storage & loading for SCCF.").
[119] IMTT Air Permit Briefing Sheet at 3, AI No. 4885, EDMS Doc. No. 12429980.
[120] SCCF Permit Application at 11. Despite ammonia emissions as they appear in SCCF's permit application constituting a major source, they do not appear to subject the Facility to Part 70 source review pursuant to Title V permitting requirements, due to ammonia's status as a TAP that is absent from the federal HAP list. *See* State (Minor Source) Permits, LDEQ, available at https://www.deq.louisiana.gov/page/state-minor-source-permits (last visited Nov. 22, 2023).
[121] SCCF Permit Application at 30.

facility's emissions–which Commenters contest– this concentration would fall below the Louisiana TAP ambient air standard of 640 µg/m^3.[122]

However, Louisiana promulgated its ammonia TAP standard in 1991, and there is no evidence in the record that LDEQ has *ever* reevaluated the adequacy of that standard, despite the requirement that the standard be updated every three years.[123] The major health risk associated with ammonia exposure is decreased lung function and respiratory symptoms.[124] Since 1991, there have been over 400 peer-reviewed scientific studies that have addressed the impacts of ammonia exposure on respiratory (i.e. lung) health.[125] Other standards that were established more recently and are derived from more current science are lower (i.e. more protective) than Louisiana's ammonia AAS of 640 µg/m^3. For example, the Massachusetts AAS for ammonia, which was updated in 2011, establishes a short-term (24-hr average) exposure limit of 100 µg/m^3. Unlike LDEQ, the Massachusetts Department of Environmental Protection provides current and detailed methodology for the derivation of its ambient air standards, including the date of the last revision.[126] The Louisiana ammonia AAS lacks any scientific basis, rendering it completely arbitrary.

Table 51.2 in LAC 33, pt. III, § 5112, which lists the Louisiana ambient air standards, merely has a footnote to indicate that the 8-hr standards, including ammonia, are "[b]ased on one forty-second of the selected occupational exposure level, or other data determined to be superior by the administrative authority." Nowhere in the record does LDEQ provide the "selected occupational exposure level" nor information about potential "other data" to support the ammonia standard.

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[122] La. Admin. Code tit. 33, pt. III, § 5112 (2007).
[123] LAC 33 § III-5109 ("The administrative authority shall periodically, at least every 36 months, review and update the ambient air standards listed for each toxic air pollutant in LAC 33:III.5112, Table 51.2.").
[124] EPA Toxicological Review of Ammonia, Executive Summary, at 4 (Sep 2016), available at https://cfpub.epa.gov/ncea/iris_drafts/recordisplay.cfm?deid=322470. Direct link https://ordspub.epa.gov/ords/eims/eimscomm.getfile?p_download_id=529124.
[125] Based on a WebofScience search on Nov 30, 2023 using the keywords "ammonia" AND "exposure" AND "respiratory." Attached as Exhibit G.
[126] MassDEP Ambient Air Toxic Guidelines, available at https://www.mass.gov/info-details/massdep-ambient-air-toxics-guidelines. The EPA's Toxicological Review of Ammonia, published in September 2016, establishes a recommended maximum concentration of 500 µg/m^3, citing scientific studies published in 1998, 2001, and 2007—for an acute duration of 25 hours or less. Toxicological Review of Ammonia Noncancer Inhalation: Executive Summary, EPA (September 2016), available at: https://ordspub.epa.gov/ords/eims/eimscomm.getfile?p_download_id=529124; *see* EPA, IRIS Glossary, available at: https://www.epa.gov/iris/iris-glossary#:~:text=Acute%20Reference%20Concentration%20(RfC)%3A,of%20deleterious%20effects%20during%20a/

Occupational exposure limits for ammonia have been updated since the Louisiana AAS were established in 1991. The current threshold limit value (TLV) for an 8-hr ammonia exposure set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 25 ppm (17 mg/m^3).[127] Several other occupational health agencies, including the National Institute for Occupational Safety and Health (NIOSH) use the same 25 ppm limit.[128] One forty-second of this 17 mg/m^3 limit equates to 0.405 mg/m^3, or 405 $\mu g/m^3$, well below the current ammonia AAS set by LDEQ. Thus, setting aside the seemingly arbitrary nature of the "one forty-second" methodology, the Louisiana ammonia AAS is more than 50% higher than the calculated value using this approach (i.e., 640 versus 405 $\mu g/m^3$).

Importantly, the maximum modeled ammonia concentration predicted by SCCF is more than double the Massachusetts standard for short-term ammonia exposure (246 versus 100 $\mu g/m^3$). Thus, the proposed SCCF facility should be considered a significant public health risk based on current science. Moreover, as detailed above, it remains possible that SCCF underestimated its ammonia emissions, since SCCF has not yet provided sufficient information for an independent expert to confirm its emissions estimates. Collectively, these considerations reveal that SCCF has failed to demonstrate that its proposed facility can operate without harming public health.

In addition to the public health concern, the SCCF facility would pose a significant nuisance to the community by causing and contributing to noxious odors. Scientific studies have reported a wide range of odor thresholds for ammonia, as low as 0.05 ppm.[129] The maximum modeled ammonia concentration reported by SCCF (246 $\mu g/m^3$ equivalent to 0.35 ppm) is seven times higher than this odor threshold. Given that St. Rose residents already regularly report noxious odors to LDEQ, efforts should be made to reduce concentrations of odorous pollutants in this community, and SCCF should not be permitted to contribute to this problem.[130]

Finally, in addition to concerns about public health and nuisance, SCCF has not demonstrated that it will operate safely with respect to worker health. There is nothing in the record to indicate that ammonia concentrations *within* SCCF's proposed facility or in the boundaries of IMTT's property would be within permissible occupational exposure limits, as required by LAC 33:III.5109.B.2.

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[127] Ammonia, American Conference of Governmental Industrial Hygienists, available at https://www.acgih.org/ammonia/
[128] Ammonia, OSHA Occupation Chemical Database, Occupational Safety and Health Administration, available at: https://www.osha.gov/chemicaldata/623
[129] Christopher van Thriel et al., From Chemosensory Thresholds to Whole Body Exposures—Experimental Approaches Evaluating Chemosensory Effects of Chemicals, 79 Int'l Archives Occupational Envtl. Health 308, 314 (2006), available at https://link.springer.com/article/10.1007/s00420-005-0057-4.
[130] *See, e.g.* note 17 *supra*.

C. LDEQ Cannot Grant the Minor Source Permit Because it is a Violation of its Duties as a Public Trustee.

LDEQ has a constitutional duty to act as the public trustee of the environment.[131] Before granting approval to proposed actions that affect the environment, LDEQ is required "to determine that adverse environmental impacts have been minimized or avoided as much as possible consistently with the public welfare."[132] As a representative of the public interest, LDEQ may not "act as an umpire passively calling balls and strikes for adversaries appearing before it; the rights of the public must receive active and affirmative protection at the hands of the [agency]."[133]

SCCF claims that the Facility is only a synthetic minor source of pollution. However, as previously discussed, its calculations heavily rely on AP-42, comparisons to other unnamed similar facilities that nonetheless require "adjustments," and other emissions estimations that are inadequate to definitively establish synthetic minor status. Additionally, the proposed ammonia facility is a major source of a serious TAP that will have significant health impacts on Elkinsville—which is less than ¼ mile from the site—and the greater St. Rose community. As such, it triggers LDEQ's public trustee duty. LDEQ must honor its constitutional and legislative duty to "to protect, conserve, and replenish the natural resources of the state" as well as the health of its inhabitants by conducting a thorough public trust review.

As part of its public trust duty, LDEQ must satisfy five issues when taking action that affects the environment:

> (1) Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?
> (2) Does a cost benefit analysis of the environmental impacts balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?
> (3) Are there alternative projects which would offer more protection to the environment than the proposed facility without unduly curtailing nonenvironmental benefits?
> (4) Are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits?
> (5) Are there mitigating measures which would offer more protection to the environment than the facility as proposed without unduly curtailing non-environmental benefits?[134]

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[131] La. Const. Art. IX Sec. 1
[132] *Save Ourselves, Inc. v. Louisiana Env't Control Comm'n*, 452 So. 2d 1152 (La. 1984).
[133] *Id.*
[134] *Blackett v. LDEQ*, 506 So. 2d 749, 754 (La. App. 1 Cir. 1987) (citing *Save Ourselves v. La. Envtl. Control Comm'n*, 452 So. 2d 1152 (La. 1984).

When undertaking this analysis, LDEQ must also ensure that it is serving environmental justice. LDEQ employs the same definition as the EPA for environmental justice, namely:

> [T]he 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. Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial operations.[135]

This requires LDEQ "to show that it minimized the disproportionate impacts of its permitting decisions in order to avoid unintentionally discriminatory effects from state actions."[136]

1. SCCF has not avoided the potential adverse effects of the proposed facility to the maximum extent possible.

SCCF proposes building its Facility directly adjacent to a historic and predominantly African American community that is already overburdened by industrial pollution—specifically a community that is 75% Black[137] and in the 96th percentile statewide for risk of respiratory disease from pollution exposure.[138] First, the scope of adverse effects from SCCF's proposed Facility on this community and the surrounding environment are difficult to measure because SCCF improperly relies on AP-42 emission factors; a misreading of TCEQ's guidance for calculating emissions; undisclosed vendor guarantees; and comparisons to an unnamed "similar" facility, to arbitrarily derive its emissions estimates.[139]

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[135] *See* Environmental Justice, EPA, available at https://www.epa.gov/environmentaljustice; *see also Rise St. James et al. v. Louisiana Dep't of Env't Quality*, Docket No. 694029, Written Reasons for Judgment at 22.
[136] *Id.* at 23.
[137] *See* note 11 *supra*.
[138] *See* Ex. A, EJScreen Report for Block Group 1, Census Tract 622, St. Charles Parish.
[139] Commenters also urge that SCCF's planned use of carbon capture at the facility should not serve as a factor to dissuade LDEQ from properly considering the health burdens that the facility's other emissions would impose on nearby St. Rose residents. Indeed, the facility's carbon footprint has little bearing on its impacts to its closest neighbors. The presence or absence of successful carbon capture by a newly added facility will not reduce concerns of decreased air quality resulting from rises in ambient air concentrations of ammonia and other harmful pollutants in St. Rose. Commenters also express skepticism about the extent to which SCCF will be able to fulfill its carbon capture promises. *See* Adam Vaughan, Most major carbon capture and storage projects haven't met targets, Env, New Scientist (Sept. 1, 2022), https://www.newscientist.com/article/2336018-most-major- carbon-capture-and-storage-projects-haven't-met-targets/ ("Several of the world's biggest projects capturing and storing carbon dioxide are significantly underperforming, according to an analysis showing some are capturing only half as much CO2 as promised.").

Even under the calculations provided, SCCF has the potential to be a major source of ammonia, which is a highly reactive gas that hydrolyzes in the mucus membranes of the lungs, causing corrosive damage that can result in severe respiratory problems.[140] As described above, the best available science supports a legal standard of 100 µg/m^3 for daily ammonia concentrations in residential areas, less than one sixth of the Louisiana AAS and less than half the level that SCCF predicted outside of its proposed facility.[141] To avoid the potential and real impacts of the Facility's ammonia emissions to the maximum extent possible, LDEQ must require SCCF to meet an ammonia ambient air standard of 100 µg/m^3 for daily ammonia concentrations.

According to the most recent EPA data available, the residential communities around the SCCF site already have a higher risk of pollution-related respiratory problems than 96% of the Louisiana population.[142] Not only does the application fail to acknowledge the existing air quality problem in St. Rose, it omits an analysis of the impacts of exposure to multiple pollutants. There is nothing in the record to indicate that the combined risk from all pollutants emitted by SCCF and IMTT would be within acceptable risk thresholds.

Operating an ammonia facility within such close proximity to a residential area could have disastrous consequences. Although SCCF did not provide any modeling to LDEQ to project the potential impacts of an accident at the facility, the potential impacts are well known from other comparable facilities. As discussed in greater detail below, ammonia facilities present a range of substantial risk to surrounding residents, including most basically the risk of ammonia leakage in excess of permitted levels.[143] Accidents including spills, leaks, fires and other malfunctions can create serious hazards for neighboring residents, and depending on the scope and environmental conditions, can even impact communities miles away.[144] As discussed above, SCCF's failure to include a site plan in its application prevents any meaningful independent analysis of the potential impacts. However, based on the location of IMTT's property, there is potential for homes

[140] Medical Management Guidelines for Ammonia, Agency for Toxic Substances and Disease Registry, available at https://wwwn.cdc.gov/TSP/MMG/MMGDetails.aspx?mmgid=7&toxid=2#:~:text=Exposure%20to%20ammonia%20gas%20or,the%20hygroscopic%20nature%20of%20ammonia.
[141] *See discussion* at Argument B(4)*; see also,* MassDEP Ambient Air Toxic Guidelines, available at https://www.mass.gov/info-details/massdep-ambient-air-toxics-guidelines.
[142] Ex. A, AirToxScreen value, as reported in EJScreen Report for census tract 22089062200. Downloaded Dec 1, 2023.
[143] Indeed, blue hydrogen is believed to have a slightly higher risk of production leakage "due to the added complexities of its production system, including an additional separation process." Fan et al, Hydrogen Leakage: A Potential Risk for the Hydrogen Economy, Columbia Center on Global Energy Policy, at 4, available at https://www.energypolicy.columbia.edu/wp-content/uploads/2022/07/HydrogenLeakageRegulations_CGEP_Commentary_063022.pdf
[144] *See* Blue Hydrogen: A Threat to Public Health? Environmental Health Project, available at https://www.environmentalhealthproject.org/post/blue-hydrogen-a-threat-to-public-health.

in historic Elkinsville to be within the blast zone of SCCF's proposed facility. LDEQ must require SCCF to demonstrate that there are no alternative sites that would offer more protection to the environment—including the human environment—than the proposed site without unduly curtailing nonenvironmental benefits.

The use of carbon capture technology on the site also poses serious safety concerns. Pipelines will necessarily be required to transport captured carbon away from the point of capture at the facility to long-term storage.[145] The transport of liquified CO_2 can be highly risky, especially when passing in close proximity to residential areas. This is not a theoretical concern; a CO_2 pipeline in Satartia, Mississippi ruptured in May of 2022 due to heavy rains shifting the ground levels – a common environmental occurrence in Louisiana. That rupture led to 45 hospitalizations and many more evacuations of the population nearest to the rupture.[146] Emergency personnel attempting to respond to the accident found that they could not start their vehicles because of the elevated levels of CO_2 displacing O_2 in the air.[147] The Satartia rupture was raised by a St. Rose community member in a September 22, 2023 meeting with SCCF leadership, who claimed to be unfamiliar with the details of that disaster. This lack of attention to potential accidents is also reflected in SCCF's application, which makes no mention of how it will ensure safe capture and transport of CO_2. The application also ignores the potential for impacts from hurricanes and floods. St. Charles Parish regularly deals with these issues and the proposed project itself includes substantial development on wetlands.[148] LDEQ must consider these potential adverse effects and whether they can be mitigated or avoided for these proposed activities at this site.

Although not provided to LDEQ, SCCF's materials submitted to the Louisiana Department of Natural Resources (LDNR) in support of its Coastal Use Permit demonstrate that the proposed Facility's placement in wetlands could have additional adverse effects to the floodplain. The site is in an area zoned AE on FEMA flood maps.[149] This suggests that it is in a "Special Hazard Flood" area and must meet more

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[145] Louisiana has attempted to expedite the construction of CCS pipeline infrastructure at great risk to the public. *See, e.g.* Delaney Nolan, Louisiana Rushes Buildout of Carbon Pipelines, adding to Dangers Plaguing Cancer Alley, The Intercept, available at: https://theintercept.com/2023/08/24/carbon-pipeline-ccs-air-products-louisiana/.

[146] Julia Simon, The U.S. is expanding CO2 pipelines. One poisoned town wants you to know its story, NPR (May 21, 2023), https://www.npr.org/2023/05/21/1172679786/carbon-capture-carbon-dioxide-pipeline.

[147] *Id.*

[148] *See, e.g.* SCCF Application for Coastal Use Permit to Louisiana Department of Natural Resources, Map of wetlands expansion at 4, attached as Exhibit H.

[149] FEMA Flood Map Service Center: St. Charles Parish, available at https://msc.fema.gov/portal/search?AddressQuery=11842%20River%20Road%2C%20St.%20Rose%2C%20Louisiana; *see also* St. Charles Planning and Zoning Department, FIRM Flood Insurance Rate Map (June 16, 1992) available at https://map1.msc.fema.gov/firm?id=2201600150C

stringent development and insurance requirements.[150] This is because development of flood-prone wetlands reduces the capacity of those wetlands to store storm water and exacerbates flood risk for adjacent properties. In its CUP application, SCCF proposes the creation of two retention ponds to mitigate flood risk.[151] However, it is unclear whether those ponds will have sufficient capacity to offset the damage to wetlands from the Facility. Site flooding could impact the integrity of machinery, including machinery with the potential for dangerous air emissions. Additionally, it could impact neighboring residents whose homes might be more vulnerable to storm-related flooding events, as well St. Rose's historic Freetown Cemetery, and both the Fifth African Baptist and Mt. Zion Baptist churches which have served as community worship centers since the 1870's.[152]. LDEQ must fully consider these potential adverse impacts and whether the Facility's current proposed placement and systems have avoided those impacts to the maximum extent possible, as is required by the public trust.

2. SCCF's proposed facility provides no information about economic and social benefits and ignores environmental and community costs.

LDEQ's analysis "requires a balancing process in which environmental costs and benefits must be given full and careful consideration along with economic, social and other factors."[153] But SCCF presents no cost-benefit analysis to DEQ, nor do the company's other public materials provide any clues; the company's cost-benefit analysis to the Parish in its Industrial Tax Exemption Program ("ITEP") application only discusses alleged economic benefits without detailing health, environmental, and other potential costs. Indeed, SCCF makes no attempt to truly evaluate or quantify the cost of any adverse impacts flowing from the Facility. DEQ must therefore separately complete this analysis because "[t]he economic benefits derived from the industry must be balanced against our need for protection of natural resources."[154]

For instance, the Facility would have significant health and environmental costs on an already overburdened community. As previously discussed, according to the most recent EPA data available, the census block group closest to the proposed SCCF site, which includes Elkinsville, has a higher risk of respiratory disease from pollution exposure than 96% of Louisiana residents.[155]

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[150] *See* Flood Zones, FEMA, last updated July 8, 2020, available at https://www.fema.gov/glossary/flood-zones.
[151] Exhibit C, CUP Application, Attachment A at 2.
[152] *See* St. Charles Parish, LA: Town Histories (January 2000) https://www.stcharlesparish.gov/residents/economic-development-and-tourism/parish-history/town-histories#:~:text=Elkinsville%20ended%20up%20with%20two,Zion%20Baptist%20in%201874.
[153] *Save Ourselves*, 452 So. 2d at 1157.
[154] *In re Dravo Basic Materials Co., Inc.*, 604 So.2d 630, 636 (La. App. 1 Cir. 1992).
[155] Ex. A, EJScreen Report for block group 1, census tract 622, St. Charles Parish. Downloaded Dec 1, 2023.

As discussed above and at length throughout this comment, there is also the potential for serious negative health effects from long-term exposure to ammonia emissions from the proposed plan. When accounting for these impacts, LDEQ must use the best available science. According to EPA, chronic exposure to ammonia at levels well below the Louisiana AAS may result in "decreased lung function and respiratory symptoms."[156]

St. Rose residents already consistently note the strong chemical odors that they are subjected to from the being along the fence-line of the facilities, including and especially IMTT. Residents have routinely made formal complaints to LDEQ about the impacts of chemical smells, but to no avail.[157] As previously discussed above, the odors associated with the ammonia emissions for this facility alone would be significant. LDEQ has a duty to maintain ambient air standards and therefore must take this perceived odor intensity into account, pursuant to LAC 33:III Chapter 29, Section C. Further, LDEQ's public trust duty mandates that it require SCCF to meet a lower and sufficiently protective ammonia ambient air standard.[158]

In addition to the health risks from routine ammonia emissions, Commenters reiterate that the proposed facility poses a major risk to St. Rose residents from potential accidents, disasters, or other emergency scenarios due to ammonia releases. Exposure to ammonia emissions is a common cause of industrial-related injuries and fatalities. Though the community and environmental costs to ammonia accidents are difficult to quantify, two accidents are illustrative. In July 2009, a woman was killed after she was overcome by ammonia vapors while driving her car near Tanner Industries, an ammonia plant located near Swansea, South Carolina.[159] In the aftermath of Hurricane Harvey in 2017, the Arkema ammonia plant near Houston exploded twice, sending more than a dozen residents and first responders to the hospital from ammonia exposure.[160] Despite these demonstrated risks, SCCF proposes to build an ammonia plant in close proximity to homes in St. Rose, Louisiana. The permit application does not adequately account for the significant potential environmental and community costs from accidents, disasters, or other emergencies, let alone the routine operations of the proposed Facility.

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[156] EPA Toxicological Review of Ammonia, Executive Summary, at 4 (Sep 2016), available at https://cfpub.epa.gov/ncea/iris_drafts/recordisplay.cfm?deid=322470. Direct link https://ordspub.epa.gov/ords/eims/eimscomm.getfile?p_download_id=529124.
[157] *See* note 17, supra.
[158] *See Save Ourselves*, 452 So.2d at 1160 ("[I]t appears that the agency may have erred by assuming that its duty was to adhere only to its own regulations rather than to the constitutional and statutory mandates.").
[159] *See* Anna Rhett Cobb, South Carolina woman dies during ammonia leak, CNN (July 15, 2009) available at https://www.cnn.com/2009/US/07/15/south.carolina.ammonia/.
[160] U.S. Chemical Safety and Hazard Board, Organic Peroxide Decomposition, Release, and Fire at Arkema Crosby Following Hurricane Harvey Flooding, available at https://www.csb.gov/assets/1/20/final_arkema_draft_report_2018-05-23.pdf?16272.

3. SCCF has failed to provide any alternative sites or projects to the proposed ammonia facility.

LDEQ cannot meet its public trustee duty using the currently-submitted application materials based on the lack of any alternatives to the proposal. The public trust doctrine requires LDEQ to examine alternatives that would offer more protection to the environment without unduly curtailing non-environmental benefits.[161]

As a threshold matter, SCCF has submitted no site plan, let alone a statement of alternative sites. In SCCF's CUP Application, the company provided five potentially feasible sites for the development of its ammonia factory for review by LDNR in the wetlands context, yet neglected to provide the same analysis in its application to LDEQ for its air permit. LDEQ should examine these sites or other alternatives to meet its duty under the public trust.

Commenters have detailed at length the adverse health impacts this site would have on its already-overburdened neighbors. In addition to adverse impacts on health, LDEQ must consider cultural resources that could be impacted by the facility, including archaeological sites like burial grounds. In an alternative site review conducted for a construction authorization request to Office of Coastal Management, SCCF asserted the 292-acre St. Rose site possessed no known cultural resources, with this serving as part of its justification for selecting the site amongst other alternatives.[162] The absence of known cultural resources, however, is not evidence of a lack of cultural resources both where adequate investigatory efforts have not been taken and where the likelihood of the presence of cultural resources remains high.

Actual investigation into the IMTT property's potential for cultural resources has been scant: on record with the Louisiana Department of Archaeology is but a single 2020 archaeological survey conducted on a portion of the IMTT property.[163] In that survey, 31.36 acres, or 3.18 miles, of a corridor intended for the construction of a pipeline were investigated via pedestrian surface inspection with shovel test pits and predictive

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[161] *See In re Rubicon, Inc.*, 95-0108 (La. App. 1 Cir. 2/14/96), 670 So. 2d 475, 483 (LDEQ must consider, among other things, whether "there are alternative projects or alternative sites or mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits to the extent applicable").

[162] Ex. B, CUP Application: JPA Attachment, p. 11 ("Upon review of the SHPO data this site has no known cultural resources site present."). Commenters once again rely on the materials provided by SCCF in its CUP application materials, due to the sparse number of materials available to commenters in reference to materials submitted to DEQ by SCCF. SCCF, while clarifying in its CUP application that the presence of known cultural resources was considered in its site selection, did not provide sources for its determination in the context of that application. *See generally id.*

[163] *See generally* Phase I Intensive Archaeological Investigation of the St. Rose to Norco Pipeline, St. Charles Parish, Louisiana, Prepared for: International Matex Tank Terminals, LLC by Gulf South Research Corporation (May 2020), attached as Exhibit I.

modelling.[164] This survey of just 31.36 acres of IMTT's property does not fully address the question of cultural resources present at the 292-acre site under consideration here, further indicating that little to no actual archaeological investigation has been conducted on the site SCCF seeks to assert as possessing no cultural resources.

Assuming no cultural resources exist on a site that has never been properly excavated is especially hasty when that site stands as one of evident historical significance. The St. Rose area has been inhabited since the 18th century, named for the plantation that no longer stands.[165] IMTT itself sits on the site of the Pecan Grove Plantation, a historical circumstance that has seemingly never been explored by any available surveying investigations.[166] With recent excavations of former plantation sites revealing cultural resources by way of unmarked burial grounds of enslaved people, the St. Rose site selected by SCCF is ripe for excavation.[167] As previously discussed, Elkinsville, founded in 1880 as Free Town and now existing as a subdivision of St. Rose, has a unique and important history.[168]

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[164] *Id.* at i ("The entire corridor [that will serve as the location for the pipeline] measures 75.14 acres[,] though portions of the pipeline cross inundated swampland. Approximately 5.51 acres (ac) consists of plant facilities where no excavation was permitted to take place due to potential subsurface hazards. Portions of the corridor where Horizontal Directional Drilling (HDD) is proposed were also not surveyed. In total 31.36 acres along approximately 3.18 miles of pipeline corridor were surveyed.").

[165] St. Rose Town History, St. Charles Par. Virtual Museum, available at https://scphistory.org/st-rose-town-history/ (last visited Nov. 23, 2023).

[166] Town Histories, St. Charles Par., LA, available at https://www.stcharlesparish.gov/residents/economic-development-and-tourism/parish-history/town-histories (last visited Nov. 23, 2023) ("[T]he present International Matex Marine Terminal (IMTT) [sits] on the site of the former Cedar Grove Plantation. The Cities Service Terminal Company came to St. Rose as an oil export terminal in 1922 on the plantation site, and IMTT took over in later years.").

[167] Tammy C. Barney, Rest in Peace? Not for Many Buried in Black Cemeteries, Commentary, LA. Illuminator (Feb. 24, 2021), available at https://lailluminator.com/2021/02/24/rest-in-peace-not-for-many-buried-in-black-cemeteries/ ("In Louisiana, Plaquemines Liquid Terminal, a joint venture of Tallgrass Energy and Drexel Hamilton Infrastructure Partners, has filed plans to build a $20 million oil export facility over historic slave cemeteries in Plaquemines Parish. The cemeteries were part of St. Rosalie, a sugar plantation along the Mississippi River"); David Hammer, Oil Company Files Plan to Build Tanks, Pipeline Over Historic Slave Cemeteries, 4WWL, available at https://www.wwltv.com/article/news/investigations/david-hammer/hammer-sweeps-wednesday/289-ed79f62d-be94-4021-b298-8dd5ab54f8bf (last updated Feb. 11, 2021, 8:34 AM).

[168] A Look Into the History of Elkinsville Subdivision in St. Rose, St. Charles Par. Virtual Museum, available at https://scphistory.org/elkinsville-subdivision-st-rose/ (last visited Nov. 23, 2023) ("Approximately 40 years [after being founded as Free Town and then Elkinsville] . . . the name Elkinsville [sic] was undeniably shifted to the ST. ROSE name due to the St. Rose Post Office being located along the levee side across from First Street.").

SCCF's analysis in the CUP application directly assesses and rules out one of the alternative sites, a tract of land located in St. Charles Parish along the Mississippi River called the St. Charles Intermodal Site, because the site contains known cultural resources. What SCCF fails to consider is that the same reasoning should restrict the St. Rose site from consideration as a site for further industrial ammonia development. Elkinsville and the greater St. Rose community should be afforded the same consideration and protections suggested in connection to the St. Charles Intermodal Site which were enacted to preserve and safeguard historic sites pivotal to the conservation of local history and cultural influence. Additionally, LDEQ should require SCCF to submit an alternative sites analysis that is geared towards air emissions. The CUP alternative sites analysis—centered on wetlands impacts—is insufficient for LDEQ air permitting purposes.

4. The application fails to provide adequate information on the mitigation of any environmental harms.

The failure of SCCF to provide any adequate analysis of the potential adverse environmental effects from the construction and operation of its proposed facility, as detailed above, also makes any analysis of mitigating measures deficient. SCCF offers no analysis of whether there are mitigating measures that will offer more protection to the environment or surrounding community. The application notes only that its operations will adhere to all applicable laws, including the Clean Air Act.[169]

For instance, the facility's application provides no evidence of a sufficient buffer zone between the facility and residentially zoned areas, including the Elkinsville community. As previously stated, SCCF's application to LDEQ provides no site plan at all. But in documents obtained through a public records request to St. Charles Parish, Commenters ascertained that the facility likely does not meet the Parish's local ordinance requiring a 2,000-foot buffer zone between major operations of heavy manufacturing and industry (zoned M-2), and residential or certain commercial areas (zoned R, CR-1, or CR-2). [170] Indeed, IMTT appears to have sought rezoning of certain parcels of the property from residential to M-2 to accommodate the future construction of the facility. [171] This suggests that the site was originally intended for residential use, and it is

[169] SCCF Air Permit Application at 4-1.
[170] Buffer zone diagram of proposed Facility, produced by St. Charles Parish in response to Commenters Public Record Request (Oct. 9, 2023), attached as Exhibit J; *see also* Email from Corey Faucheux, Director of Economic Development and Tourism to Charlie Romaine, Director, Business Development, Louisiana Economic Development (June 15, 2022), produced by St. Charles Parish in response to Commenters' Public Record Request (Oct. 9, 2023), attached as Exhibit K; *see also* Exhibit H, CUP Application Map at 4 (showing 2,000' residential offset line); St. Charles Par. Code Ord. Appendix A, Section VI, II (4)(b).
[171] *See* Email from Tim Vial, President, St. Charles Parish Industrial Board (April 20, 2023), produced in response to Commenters' Public Record Request (Oct. 9, 2023), attached as Exhibit

dangerously close to the homes of St. Rose residents. But without a clear site plan or analysis of the buffer zone from SCCF, neither LDEQ nor Commenters cannot fully assess this.

LDEQ should pay special consideration to mitigation that would protect Elkinsville. As previously discussed, this project could threaten its status as a historic cultural site. A stark illustration of this impact may be seen at the physical site of the proposed project. There, the historic plaque detailing Elkinsville's rich cultural history and significance sits just over the levee, mere feet from the existing IMTT docks which SCCF plans to refit for further industrial use.[172] SCCF's CUP application details how it intends to install extensive metal decks along the length of the dock as well as numerous "liquid ammonia product and vapor return loading arms."[173] The construction and subsequent operations of this piece of the Facility would have substantial daily noise, odor, and air impacts felt at that very marker site. Without proper mitigation of adverse impacts to Elkinsville, the SCCF project risks harm to an important site of African American history in St. Charles Parish. LDEQ must conduct a thorough environmental justice analysis to ensure that it upholds its duty under the public trust.

CONCLUSION

SCCF's application for a synthetic minor source is lacking critical details for the public and LDEQ to adequately assess whether it will comply with the Clean Air Act and Louisiana's SIP. In particular, the Facility is subject to Title V/Part 70 requirements that it has not met; may have underestimated its potential emissions; may not be able to actually implement the proposed carbon capture technology it asserts will make the facility "blue;" and may be subject to common control. The Facility will also be a major source of ammonia with the potential for severe environmental and health impacts on the surrounding community. The application is devoid of any assessment of whether the "[a]dverse environmental impacts have been minimized or avoided as much as possible consistently with public welfare."[174] Given the proposed facility's close proximity to a historic and predominantly Black community that is already overburdened by air pollution, these deficiencies are inexcusable. LDEQ must thoroughly review whether SCCF has in fact met its duties under the Clean Air Act and public trust doctrine by requesting the aforementioned additional materials from SCCF and by making a subsequent notice and comment period available.

For the foregoing reasons, Commenters urge LDEQ to deny the SCCF minor source air permit. At a minimum, LDEQ must require the Facility to apply for a Title V

L; *see also* St. Charles Parish Council Meeting Recording, (Feb. 6, 2023) (approving IMTT rezone request) available at https://www.youtube.com/watch?v=4PYCQF5IJRU

[172] Historic Marker Database, Elkinsville-Freetown Map, available at: https://www.hmdb.org/map.asp?markers=100384,85525,51606,200721,51607,109564,109613,85817,85770.

[173] *See* Ex. B CUP Application at 11.

[174] *Save Ourselves*, 452 So. 2d at 1157 (interpreting La. Const. Art. IX, § 1).

and PSD permit as a major source. Absent a full denial, DEQ should request the following additional information from the applicant and build in the following additional controls to the permit to ensure the safety of area residents:

- Air modeling and emissions estimates based on reliable data, rather than AP-42 emissions factors and unnamed "similar facilities."
- Additional detail about how technological controls will be employed to ensure that the source is a true synthetic minor source for CO and NO_x.
- Site modeling and facility planning that accurately demonstrates the full footprint of the site, including those pieces of the existing IMTT facility that SCCF will be using and the distance from the facility to the nearest residential area
- Additional substantiation for the use of CCS technology, including specific reference to the pipelines and Class VI wells that will facilitate its use of that technology.
- Information assessing the costs of the project, including the impacts on human health, the environment, and any potential cultural resources on or close to the site.
- An environmental justice analysis fully assessing the burdens the SCCF proposed facility would place on the surrounding community.
- Assurances regarding how minor source limits will be monitored adequately.
- Planning for future direct monitoring of emissions in order to reassess emissions limits after a few years of full operations.

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Exhibit List

A. EJScreen Report for block group 1, census tract 622, St. Charles Parish. Downloaded Dec 1, 2023.
B. SCCF Application for Coastal Use Permit to Louisiana Department of Natural Resources, JPA Attachment ("CUP Application: JPA Attachment").
C. SCCF Application for Coastal Use Permit to Louisiana Department of Natural Resources, Attachment A: Project Description St Charles Clean Fuels Project ("CUP Application: Attachment A").
D. Letter from William L. Wehrum, E.P.A. Assistant Adm'r, to Hon. Patrick McDonnell, Sec'y, Pa. Dep't of Env't Prot. (Apr. 30, 2018) ("EPA Common Control Policy Letter").
E. Genevieve Plant et al., Inefficient and Unlit Natural Gas Flares Both Emit Large Quantities of Methane, 377 SCI. 1566, 1566 (2022), available at https://www.science.org/doi/10.1126/science.abq0385.
F. Email from Sharon Killian, Trinity Consultants on behalf of SCCF in the permitting process, to Sonya Eastern, LDEQ (June 7, 2023), produced September 26, 2023 in response to Commenters' Public Record Request No. 0103733 to LDEQ
G. WebofScience search, keywords "ammonia" AND "exposure" AND "respiratory" (Nov 30, 2023)
H. SCCF Application for Coastal Use Permit to Louisiana Department of Natural Resources, Map of wetlands expansion.
I. Phase I Intensive Archaeological Investigation of the St. Rose to Norco Pipeline, St. Charles Parish, Louisiana, Prepared for: International Matex Tank Terminals, LLC by Gulf South Research Corporation (May 2020).
J. Buffer zone diagram of proposed Facility, produced by St. Charles Parish in response to Commenters Public Record Request (Oct. 9, 2023).
K. Email from Corey Faucheux, Director of Economic Development and Tourism to Charlie Romaine, Director, Business Development, Louisiana Economic Development (June 15, 2022), produced by St. Charles Parish in response to Commenters' Public Record Request (Oct. 9, 2023).
L. Email from Tim Vial, President, St. Charles Parish Industrial Board (April 20, 2023), produced in response to Commenters' Public Record Request (Oct. 9, 2023).