PETITION TO THE ADMINISTRATOR, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Petition for Emergency Action under the Clean Air Act, 42 U.S.C. § 7603 *et seq.*, to Abate the Imminent and Substantial Danger to St. John the Baptist Parish, Louisiana Residents from Toxic Air Pollution

and

Petition for Rulemaking under the Clean Air Act, 42 U.S.C. § 7412, to Set Health-Protective Air Toxics Emissions Standards

Dated: May 6, 2021

PETITION INTRODUCTION AND SUMMARY

Concerned Citizens of St. John ("CCSJ") respectfully submits this petition, by and through its counsel Earthjustice and the Lawyers' Committee for Civil Rights Under Law.

Community members in St. John the Baptist Parish, Louisiana face a grave health emergency due to toxic air pollution from chloroprene and ethylene oxide emissions. The U.S. Environmental Protection Agency's ("EPA's") own data show that St. John residents face a cancer risk as high as 1,505-in-1 million—the highest cancer risk in the nation from air pollution—due to these emissions from nearby industrial sources, including a neoprene plant owned by Denka Performance Elastomer ("Denka").¹ In 2016, EPA created an Action Plan to protect community health in St. John and began fenceline monitoring. But EPA has since failed to fulfill its Action Plan, or, most importantly, protect public health in St. John from toxic air pollution.² Instead, EPA has weakened air monitoring and allowed the health emergency to become more dire. As of September 2020, chloroprene air concentrations remained as high as 16.0 μ g/m³ in St. John³—8,000 times the ambient concentration cancer risk value of 0.002 μ g/m³, the level set by EPA scientists in 2010 and recognized as the goal for community health protection in a 2016 EPA memo, and 80 times the level of 0.2 μ g/m³, the level at which EPA

¹U.S. Envt'l Prot. Agency, 2014 National Air Toxics Assessment (Aug. 22, 2018),

https://gispub.epa.gov/NATA/ ("2014 NATA"); Sharon Lerner, A Tale of Two Toxic Cities, THE INTERCEPT (Feb. 24, 2019), https://theintercept.com/2019/02/24/epa-response-air-pollution-crisis-toxic-racial-divide/.

² See U.S. Envt'l Prot. Agency, *Action Plan* 5 (June 2016), https://www.epa.gov/sites/production/files/2016-06/documents/epa-laplace-action-plan.pdf (attached).

³ U.S. Envt'l Prot. Agency, DENKA Air Monitoring Summary Sheet May 25, 2016 - September 26, 2020, https://www.epa.gov/sites/production/files/2020-

10/documents/r6 summary through september 26 2020.pdf (attached).

deems the cancer risk level presumptively unacceptable because it causes a cancer risk of 100-in-1 million or more.⁴

As St. John resident and CCSJ member Robert Taylor stated, "[f]or too long [St. John] ha[s] been failed by every layer of government, from the president, to congressional representation, from our state governor, to our state environment agency."⁵ EPA must protect this community facing a dire health emergency and the highest cancer risk from air pollution in the nation. EPA must also advance the core goals of environmental justice to which it has recommitted itself under the leadership of President Biden and Administrator Regan.

Concerned Citizens of St. John and its members (collectively, "Petitioners" or "we") petition EPA to use the full extent of its authority, including its emergency powers under the Clean Air Act ("CAA" or "Act"), 42 U.S.C. § 7603, to abate the imminent and substantial danger to St. John residents from chloroprene and ethylene oxide emissions. As we demonstrate below, this crisis satisfies the requirements necessary for EPA to use its emergency powers. Specifically, we call on EPA to meet with community members, strengthen and enforce the Action Plan, and take other immediate steps outlined below to end St. John's health emergency due to toxic air pollution. We also petition EPA to promulgate a rule pursuant to the Clean Air Act, 42 U.S.C. § 7412, and Oljato Chapter of Navajo Tribe v. Train, 515 F.2d 654 (D.C. Cir. 1975), to review and revise the national emission standards that govern the toxic air emissions contributing to the health emergency, particularly chloroprene. As the Clean Air Act requires, these standards must be revised as "necessary" to assure compliance with the core air toxics provisions and to provide the requisite "ample margin of safety to protect public health." 42 U.S.C. § 7412(d)(6), (f)(2). We also urge EPA to quickly grant the pending reconsideration petition regarding the rule governing ethylene oxide emissions and to take all other action necessary to reduce ethylene oxide emissions in St. John and nationwide.⁶

⁴ See Memo from Kelly Rimer, Leader, Air Toxics Assessment Group, Health & Envt'l Impacts Div., OAQPS, to Frances Verhalen, P.E., Chief, Air Monitoring/Grants Section, EPA Region 6, Re: Preliminary Risk-Based Concentration Value for Chloroprene in Ambient Air (May 5, 2016), <u>https://www.epa.gov/sites/production/files/2016-06/documents/memo-prelim-risk-based-</u>

<u>concentrations050516.pdf</u> ("2016 EPA Chloroprene Memo") (attached). EPA's 100-in-1 million cancer risk benchmark, set in 1989, is also far too high and should be reduced to recognize that lower levels of cancer risk from toxic air are also unacceptable.

⁵ Robert Taylor, *The US ignored Louisiana's 'cancer alley' for decades. Will Biden finally take action?*, The Guardian (Feb. 1, 2021), <u>https://www.theguardian.com/commentisfree/2021/feb/01/us-louisiana-cancer-alley-biden-climate-orders</u>.

⁶ RISE St. James et al., *Petition for Reconsideration of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Miscellaneous Organic Chemical Manufacturing (MON) Risk and Technology Review; Final Rule, 85 Fed. Reg. 49,084 (Aug. 12, 2020), Docket No. EPA-HQ-OAR-2018-0746 (Oct. 13, 2020), https://earthjustice.org/documents/legal-document/petition-for-reconsideration-mon-rule.*

I. Background

a. Concerned Citizens of St. John has advocated for reduced chloroprene emissions for years.

Concerned Citizens of St. John is a non-profit organization comprising St. John residents seeking to ensure the health and safety of their community. CCSJ formed in 2016, when its members learned that EPA estimates showed that the community faced heightened cancer risk due primarily to chloroprene emissions from Denka. CCSJ has demanded that EPA require Denka to reduce its chloroprene emissions below 0.2 micrograms per cubic meter ($\mu g/m^3$)—the maximum chloroprene air concentration that would keep cancer risk from air pollution below EPA's presumptive level of unacceptability, 100-in-1 million people.⁷ For years, CCSJ and other local groups have also advocated for reducing toxic air pollution in and around St. John, including the Louisiana Environmental Action Network and Sierra Club.

b. St. John residents face an unprecedented health emergency.

Because St. John residents breathe toxic air on a daily basis, they currently face and have been exposed for years to health risks associated with chloroprene emissions—including cancer, nervous system and heart damage, gastrointestinal problems, and immune system dysfunction.⁸ Since the COVID-19 pandemic began over a year ago, St. John residents have also faced a new devastating effect of exposure to toxic air pollution: increased vulnerability to mortality from COVID-19.⁹ Early in the COVID-19 pandemic, St. John the Baptist had the highest COVID-19 death rate per capita in the United States.¹⁰

⁷ See 2016 EPA Chloroprene Memo, *supra* note 4 (attached); University Network for Human Rights, *Concerned Citizens of St. John Parish Meet with EPA in Washington, D.C.* (Nov. 21, 2019), <u>https://www.humanrightsnetwork.org/press/2019/11/20/concerned-citizens-of-st-john-parish-meet-with-epa-in-washington-dc</u>.

⁸ U.S. Envt'l Prot. Agency, *Toxicological Review of Chloroprene, EPA/635/R-09/010F* 144, 146-48 (Sept. 2010), <u>https://cfpub.epa.gov/ncea/iris/iris_documents/documents/toxreviews/1021tr.pdf</u> ("2010 IRIS"); U.S. Envt'l Prot. Agency, *IRIS Chemical Assessment Summary – Chloroprene* 5, 12-13 (Sept. 2010), <u>https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/1021_summary.pdf</u> ("2010 IRIS Summary"); *see* U.S. Envt'l Prot. Agency, LaPlace, Louisiana – Frequent Questions (updated Nov. 18, 2020), <u>https://www.epa.gov/la/laplace-louisiana-frequent-questions</u> ("Frequent Questions").

⁹ See Michael Petroni et al., *Hazardous air pollutant exposure as a contributing factor to COVID-19 mortality in the United States*, 15 ENVIRONMENTAL RESEARCH LETTERS (Sept. 11, 2020), <u>https://iopscience.iop.org/article/10.1088/1748-9326/abaf86/pdf</u> (finding increased mortality from COVID-19 linked with exposure to hazardous air pollution); Sara Sneath, *Louisiana's river region residents seek scrutiny of pollution's role in coronavirus deaths*, THE NEW ORLEANS ADVOCATE (Apr. 16, 2020), <u>https://www.nola.com/news/coronavirus/article_773badc2-7a6c-11ea-bb14-</u>d325aeecfb71.html.

¹⁰ Ashley Killough and Ed Lavandera, *This small Louisiana parish has the highest death rate per capita for coronavirus in the country*, CNN.COM (Apr. 16, 2020), <u>https://www.cnn.com/2020/04/15/us/louisiana-st-john-the-baptist-coronavirus/index.html</u>.

St. John the Baptist Parish is located in a heavily industrialized area between New Orleans and Baton Rouge long known as "Cancer Alley."¹¹ St. John the Baptist residents are surrounded by petrochemical plants and oil refineries, including the only neoprene manufacturing unit in the country, formerly owned by DuPont and since 2015 owned by Denka; Evonik Corporation's plant and Union Carbide Corporation's Taft/Star operation, which both emit ethylene oxide; and Marathon Petroleum's oil refinery.¹² Cancer Alley is named and internationally recognized for the astonishingly high risk of cancer its residents face due to air pollution.¹³ EPA's data have confirmed that Cancer Alley residents suffer a high risk of cancer related to air pollution. According to the most recent EPA National Air Toxics Assessment ("2014 NATA"), Cancer Alley contains seven of the ten U.S. census tracts with the highest cancer risk from air pollution.¹⁴

As EPA's own data have consistently confirmed, St. John residents in particular suffer a high air pollution-related risk of cancer due in great part to chloroprene emissions. Since 1969, the neoprene manufacturing unit has emitted chloroprene, a cancer-causing by-product of neoprene manufacturing.¹⁵ In a 2010 Integrated Risk Information System ("IRIS") assessment, EPA concluded that chloroprene is "likely to be carcinogenic to humans."¹⁶ EPA also concluded in the IRIS assessment that chloroprene, in addition to causing cancer risk, can increase the threat of numerous other adverse health effects, including nervous system and heart damage, gastrointestinal problems, hematological problems, and immune system dysfunction.¹⁷ Localized data confirm that the prevalence of health effects from chloroprene are associated with proximity to the Denka plant, with higher levels of illness closer to the plant.¹⁸ Such health effects included nosebleeds in children; wheezing or difficulty breathing; headaches, dizziness, or lightheadedness; eye pain or irritation and/or watery eyes; cough, sneezing, or sore/hoarse throat; skin rash or irritation, or itchy skin; and fatigue/lethargy.¹⁹

¹³ See Robert Taylor, *The US ignored Louisiana's 'cancer alley' for decades. Will Biden finally take action?*, The Guardian, (Feb. 1, 2021), <u>https://www.theguardian.com/commentisfree/2021/feb/01/us-louisiana-cancer-alley-biden-climate-orders</u>; United Nations Human Rights Office of the High Commissioner, *USA: Environmental racism in "Cancer Alley" must end – experts* (Mar. 2, 2021), <u>https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=26824&LangID=E</u>.

¹¹ Tristan Baurick et al., *Polluter's Paradise: Welcome to "Cancer Alley," Where Toxic Air Is About to Get Worse*, Times-Picayune/Advocate, ProPublica (Oct. 30, 2019),

https://www.propublica.org/article/welcome-to-cancer-alley-where-toxic-air-is-about-to-get-worse.¹² Sharon Lerner, *A Tale of Two Toxic Cities*, THE INTERCEPT (Feb. 24, 2019),

https://theintercept.com/2019/02/24/epa-response-air-pollution-crisis-toxic-racial-divide/.

¹⁴ 2014 NATA, *supra* note 1.

¹⁵ Sharon Lerner, *The Plant Next Door*, THE INTERCEPT (Mar. 24, 2017), <u>https://theintercept.com/2017/03/24/a-louisiana-town-plagued-by-pollution-shows-why-cuts-to-the-epa-</u>will-be-measured-in-illnesses-and-deaths/.

¹⁶ 2010 IRIS Summary, *supra* note 8, at 11.

¹⁷ 2010 IRIS Summary, *supra* note 8, at 5.

¹⁸ Ruhan Nagra et al., "Waiting to Die": Toxic Emissions and Disease Near the Denka Performance Elastomer Neoprene Facility in Louisiana's Cancer Alley, 14 ENVIRONMENTAL JUSTICE, Feb. 2021, at 14, 22 (attached).

¹⁹ *Id.* at 22.

In the words of a St. John resident, "we're just sitting here, waiting to die."²⁰

EPA's 2011 National Air Toxics Assessments ("2011 NATA") showed cancer risks as high as 826-in-1 million in the census tract of the Denka facility.²¹ The most recent NATA, based on data from 2014 and released in 2018, found that cancer risks in this community are as high as 1,505-in-1 million.²² This heightened risk is driven primarily by chloroprene emissions from Denka and ethylene oxide emissions.²³ EPA attributes the vast majority of the cancer risk to chloroprene, emitted by Denka. Specifically, EPA attributes 85% (1,279 per million people) of the cancer risk from air pollution in census tract 708 to chloroprene emissions, 12% (187 per million people) to ethylene oxide emissions, and 3% (38 per million people) to all other pollutants.²⁴

Chloroprene air concentrations of 0.2 μ g/m³ create a cancer risk of 100-in-1 million, and chloroprene air concentrations of 0.002 μ g/m³ create a cancer risk of 1-in-1 million.²⁵ In 2016, EPA recommended that, "[a]t a minimum," Denka should achieve emission reductions so that the maximum annual average chloroprene concentration would be "no higher than 0.2 μ g/m³ at the highest modeled off-site location."²⁶ EPA clarified that it would be "preferable" to have the chloroprene concentration at the highest modeled census block as close to $0.002 \ \mu g/m^3$ as possible.²⁷ Section 112(f)(2) of the Clean Air Act directs EPA to protect the public from a cancer risk above 1-in-1 million.²⁸ Yet the air pollution-related cancer risk in the census tract of the Denka facility is 1,505-in-1 million—1,505 times higher than the statutory benchmark.²⁹

Denka has failed to reduce its chloroprene emissions so that air concentrations remain below 0.2 μ g/m³, let alone below EPA's preferred level of 0.002 μ g/m³. Although Denka has reported that it has reduced its chloroprene emissions since 2014 after installing a Regenerative Thermal Oxidizer,³⁰ ambient air concentrations resulting from its chloroprene emissions still

²⁹ 2014 NATA, *supra* note 1.

²⁰ University Network for Human Rights, *Gloria Dumas*, YOUTUBE (Aug. 8, 2019), https://youtu.be/F77MvXt6y88?t=48. ²¹ U.S. Envt'l Prot. Agency, 2011 National Air Toxics Assessment (Dec. 17, 2015),

https://www.epa.gov/national-air-toxics-assessment/2011-nata-assessment-results.

²² 2014 NATA, *supra* note 1.

²³ 2014 NATA, supra note 1; Sharon Lerner, A Tale of Two Toxic Cities, THE INTERCEPT (Feb. 24,

^{2019),} https://theintercept.com/2019/02/24/epa-response-air-pollution-crisis-toxic-racial-divide/. ²⁴ 2014 NATA, *supra* note 1.

²⁵ See 2016 EPA Chloroprene Memo, *supra* note 4 (attached).

²⁶ *Id*.

²⁷ Id.

²⁸ 42 U.S.C. § 7412(f)(2); Nat. Res. Def. Council v. EPA, 529 F.3d 1077, 1082 (D.C. Cir. 2008) (allowing EPA to use 100-in-1 million as the presumptively unacceptable benchmark, but also recognizing that 1in-1 million is the "aspirational goal").

³⁰ U.S. Envt'l Prot. Agency, 2014 NATA Emissions Updates (July 28, 2020),

https://www.epa.gov/sites/production/files/2018-08/documents/2014 nata updates to emissions.pdf; U.S. Envt'l Prot. Agency, ADDENDUM TO SUMMARY REPORT Air Monitoring for Chloroprene Concentrations in LaPlace, LA from May 25, 2016 through September 26, 2020 (Nov. 2020),

https://www.epa.gov/sites/production/files/2020-11/documents/addendum-tp-summary-report-november-2020.pdf (attached).

remain far above the highly dangerous chloroprene level of $0.2 \ \mu g/m^3$, and EPA's preferred level of $0.002 \ \mu g/m^3$.³¹ For example, according to EPA's monitoring data between October 2019 and September 2020, the average chloroprene ambient concentration at Chad Baker Street, one of the six locations EPA monitored in St. John, was $1.6 \ \mu g/m^3$.³² In 2020, chloroprene concentrations reached as high as $22.6 \ \mu g/m^3$.³³ That is *11,300 times* EPA's preferred value of $0.002 \ \mu g/m^3$.³⁴ Of the six locations monitored, the lowest average air concentrations between October 2019 and September 2020 were over one hundred times EPA's preferred chloroprene level: East Saint John High School's average chloroprene air concentration between October 2019 and September 2020 was $0.3 \ \mu g/m^3$.³⁵

As EPA data show, ethylene oxide emissions also contribute a layer of unacceptable cancer risk to the extraordinarily high cancer risk in St. John.³⁶ Last year, EPA's Office of Inspector General issued a management alert that "EPA needs to inform residents who live near facilities with significant ethylene oxide emissions about their elevated estimated cancer risks so they can manage their health risks."³⁷ CCSJ and other Louisiana groups sought a public hearing on the Miscellaneous Organic Chemical Manufacturing proposed rule in 2020 to evaluate Louisiana's ethylene oxide-emitting sources. Yet, EPA refused to hold a public hearing or seek local input on the community's concerns about ethylene oxide-emitting sources. To Petitioners' knowledge, EPA has performed no recent emission testing or air monitoring for ethylene oxide at all in the community. Thus, although EPA has acknowledged that ethylene oxide emissions contribute to cancer risk in St. John, it has failed to monitor current ambient levels.

c. St. John the Baptist Parish, a predominantly Black community, is disproportionately bombarded by chloroprene and other toxic air pollution.

EPA's inadequate control of toxic air pollution in St. John is a serious environmental justice problem. The severe health impacts and risks from industrial toxic air pollution fall disproportionately on the predominantly Black community members living in St. John the

10/documents/r6_summary_through_september_26_2020.pdf (attached).

³¹ See 2016 EPA Chloroprene Memo, supra note 4 (attached).

³² U.S. Envt'l Prot. Agency, *ADDENDUM TO SUMMARY REPORT Air Monitoring for Chloroprene Concentrations in LaPlace, LA from May 25, 2016 through September 26, 2020* (Nov. 2020), https://www.epa.gov/sites/production/files/2020-11/documents/addendum-tp-summary-report-november-2020.pdf.

³³ U.S. Envt'l Prot. Agency, DENKA Air Monitoring Summary Sheet May 25, 2016 - September 26, 2020, <u>https://www.epa.gov/sites/production/files/2020-</u>

³⁴ See 2016 EPA Chloroprene Memo, supra note 4 (attached).

³⁵ See U.S. Envt'l Prot. Agency, ADDENDUM TO SUMMARY REPORT Air Monitoring for Chloroprene Concentrations in LaPlace, LA from May 25, 2016 through September 26, 2020 (Nov. 2020), https://www.epa.gov/sites/production/files/2020-11/documents/addendum-tp-summary-report-november-2020.pdf.

³⁶ 2014 NATA, *supra* note 1.

³⁷ U.S. Envt'l Prot. Agency, *Report: Management Alert - Prompt Action Needed to Inform Residents Living Near Ethylene Oxide-Emitting Facilities About Health Concerns and Actions to Address Those Concerns* (Mar. 31, 2020), <u>https://www.epa.gov/office-inspector-general/report-management-alert-prompt-action-needed-inform-residents-living-near.</u>

Baptist Parish. St. John the Baptist Parish is 58.4% Black.³⁸ Ninety-four percent of the population within one mile of Denka is Black.³⁹ EPA defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."⁴⁰ Environmental justice "will be achieved when everyone enjoys: [t]he same degree of protection from environmental and health hazards, and [e]qual access to the decision-making process to have a healthy environment in which to live, learn, and work."⁴¹ The federal government has committed itself to furthering environmental justice since 1994.⁴²

In 2016, EPA set out a strategic plan to achieve environmental justice goals in communities like St. John.⁴³ Recently, President Biden has reaffirmed a commitment to environmental justice in his Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.⁴⁴ St. John residents are disproportionately impacted by air pollution and, now, COVID-19. St. John residents are exposed to not only chloroprene emissions, but also other sources of toxic air, including ethylene oxide. The cumulative toxic impacts of air pollutants are well-understood to be overwhelming and unbearable.⁴⁵ In line with its fundamental duty to protect disproportionately impacted communities such as St. John, and President Biden's commitment to environmental justice, EPA must act swiftly to protect St. John residents.

⁴³ U.S. Envt'l Prot. Agency, *EJ 2020 Action Agenda: The U.S. EPA's Environmental Justice Strategic Plan for 2016-2020* (Oct. 2016), <u>https://www.epa.gov/sites/production/files/2016-</u>05/documents/052216 ej 2020 strategic plan final 0.pdf.

https://law.tulane.edu/sites/law.tulane.edu/files/Files/Terrell%20-%20COVID-19%20-%20PM%202.5%20Louisiana%202020-5-14%20WEB%20VERSION.pdf; Sara Sneath,

https://www.nola.com/news/coronavirus/article_773badc2-7a6c-11ea-bb14d325aeecfb71.html.

³⁸ U.S. Census Bureau, QuickFacts: St. John the Baptist Parish, Louisiana,

https://www.census.gov/quickfacts/stjohnthebaptistparishlouisiana (last visited Mar. 8, 2021). ³⁹ Data sourced from the 2014-2018 American Community Survey and shown on EPA's Environmental Justice Screening and Mapping tool. U.S. Envt'l Prot. Agency, *EPA's Environmental Justice Screening and Mapping Tool (version 2020)*, <u>https://ejscreen.epa.gov/mapper/</u> (last visited Apr. 29, 2021) (attached).

⁴⁰ U.S. Envt'l Prot. Agency, *Environmental Justice*, <u>https://www.epa.gov/environmentaljustice</u> (last visited Mar. 8, 2021).

⁴¹ *Id*.

⁴² Executive Order 12898 of February 11, 1994: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 32, (Feb. 16, 1994).

⁴⁴ Executive Order 13990 of January 20, 2021: Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, 86 Fed. Reg. 7037 (Jan. 25, 2021).

⁴⁵ See Kimberly Terrell & Wesley James, *Air Pollution and COVID-19: A Double Whammy* for African American and Impoverished Communities in Cancer Alley (2020),

Louisiana's river region residents seek scrutiny of pollution's role in coronavirus deaths, THE NEW ORLEANS ADVOCATE (Apr. 16, 2020),

d. After acknowledging the crisis in 2016 and developing an Action Plan, EPA failed to protect St. John residents.

After EPA's release of the 2011 NATA and recognition that St. John the Baptist Parish was facing extremely high cancer risk due to chloroprene, EPA issued an Action Plan in 2016.⁴⁶ In the Action Plan, EPA stated it would act on: (i) air permits, (ii) air monitoring, (iii) inspection and enforcement, (iv) health, and (v) environmental justice. Unfortunately, in recent years, EPA has failed to communicate with the community, particularly CCSJ, about the implementation of its 2016 Action Plan. EPA has also failed to communicate to CCSJ whether it has taken action to reduce Denka's chloroprene emissions and protect St. John residents from ambient levels above the 2010 IRIS value. Even worse, EPA has weakened fenceline monitoring—over the community's objection—and has entertained Denka's nonsensical attempt to undermine the chloroprene IRIS value.

i. Air Permits

As part of implementing the 2016 Action Plan, EPA noted that the Denka Chloroprene Unit, Neoprene Unit, and HCl Unit operating permits were due to be renewed in 2019 and 2020.⁴⁷ Yet, CCSJ has not had an opportunity to participate in a public comment process or public hearing under the Clean Air Act and the Louisiana Department of Environmental Quality ("LDEQ") implementing regulations for Denka's permits, for years. CCSJ has not received information from LDEQ on the status of these permits or any action LDEQ is taking regarding this renewal. EPA has not informed CCSJ whether the permits were renewed or whether there are any pending permit actions.

ii. Air Monitoring

As part of implementing the 2016 Action Plan, EPA began collecting ambient air monitoring data in Spring 2016 at the following six monitoring locations in St. John: St. John the Baptist High School, Ochsner Hospital, Acorn Street and Hwy 44, 238 Chad Baker Street, Fifth Ward Elementary School, and the Mississippi River Levee. EPA followed Method TO-15, the EPA-approved test method of summa canister sampling for volatile organic compounds, including chloroprene.⁴⁸ Initially, EPA collected air samples for a 24-consecutive-hour period every three days, but on March 1, 2019, EPA reduced this collection to every sixth day.⁴⁹

In September 2020, EPA discontinued its prior monitoring and began a "Continuous Air Monitoring Program" that deploys "SPod monitoring stations" with a photoionization detector

⁴⁶ See U.S. Envt'l Prot. Agency, Action Plan (June 2016),

https://www.epa.gov/sites/production/files/2016-06/documents/epa-laplace-action-plan.pdf (attached). ⁴⁷ *Id.* at 1-2.

⁴⁸ *Id.* at 3; U.S. Envt'l Prot. Agency, *Ambient Air Sampling/Monitoring Plan for Chloroprene in the Area Near Denka Performance Elastomer Pontchartrain Facility, LaPlace, Louisiana (Formerly the DuPont Neoprene Facility, Pontchartrain Works)* (May 2016), <u>https://www.epa.gov/sites/production/files/2016-</u> <u>07/documents/final_ambient_air_monitoring_plan_for_dpe_laplace_la_may_2016.pdf</u>.

⁴⁹ U.S. Envt'l Prot. Agency, *LaPlace, Louisiana – Air Monitoring*, <u>https://www.epa.gov/la/laplace-louisiana-air-monitoring-0</u> (last visited Apr. 28, 2021).

("PID"), a meteorological station, and summa canisters.⁵⁰ Unfortunately, the "Continuous Air Monitoring Program" is not actually continuous. Instead, it includes only the intermittent collection of a 24-hour average summa canister sample, based on the use of a so-called "VOC trigger" monitoring threshold. When the PID detects VOC concentrations above a threshold level, the canister collects an air sample.⁵¹ In some instances, however, that trigger may never happen, even if the air contains high levels of chloroprene.

EPA has failed to demonstrate to CCSJ whether or how the "SPod" method of monitoring is effective in protecting public health. EPA began using the "SPod" method in 2020 based on a rationale that going forward, it would be necessary to monitor for chloroprene emission spikes only. The 2020 air monitoring data shows high levels of chloroprene, suggesting that spikes could be frequent. The community does not have confidence in the "SPod" method, which appears to have been designed only for temporary use at Denka and has had problems in implementation. Notably, EPA did not promulgate the "SPod" method through public noticeand-comment or through its approval process for emission test methods.

EPA must employ a monitoring method that assures accurate, reliable, and continuous monitoring. To address serious acute emission spikes, EPA should require (1) continuous monitoring using the approved methods of TO-15A and/or 325A-B and (2) real-time or open-path monitoring, as part of the public comment period in a rulemaking. Chemical plants and other facilities around the United States, including refineries in Los Angeles, use forms of optical remote sensing or open-path monitoring.⁵² These methods may provide the community with the fastest and most accurate information on the emissions from Denka and associated health threats, assuming they can be used for chloroprene and their detection level is low enough.

Since EPA monitoring began in 2016, its data have repeatedly shown chloroprene emission levels that are orders of magnitude higher than EPA's 2010 IRIS value for chloroprene and higher than the level associated with a cancer risk of 100-in-1 million.⁵³ In an attempt to justify refusing to implement any additional pollution controls or reduction methods, Denka and

⁵⁰ See U.S. Envt'l Prot. Agency, Initial Phase Report U.S. Environmental Protection Agency (EPA) Continuous Air Monitoring for Chloroprene Concentrations near the Denka Performance Elastomer LLC (DPE) Facility in LaPlace, Louisiana March 2020 through August 2020 (Oct. 16, 2020), https://www.epa.gov/sites/production/files/2020-

^{10/}documents/initial_phase_report_continuous_air_monitoring_101620.pdf.

⁵¹ See U.S. Envt'l Prot. Agency, *Quality Assurance Project Plan for Sprod Monitoring at the Denka Performance Elastomer Facility in LaPlace, Louisiana* 25 (Feb. 2020), <u>https://www.epa.gov/la/quality-assurance-project-plan-spod-monitoring-denka-performance-elastomer-facility-laplace</u>.

⁵² See S. Coast Air Qual. Mgmt. Dist., *Rule 1180 Community Air Monitoring Plan* 55-56 (Apr. 2020), http://www.aqmd.gov/docs/default-

source/fenceline_monitroing/r1180_draft_community_monitoring_plan_rev_2_04022020_final_use_upd ated1.pdf?sfvrsn=8.

⁵³ See, e.g., U.S. Envt'l Prot. Agency, DENKA Air Monitoring Summary Sheet May 25, 2016 - September 26, 2020, <u>https://www.epa.gov/sites/production/files/2020-</u>

<u>10/documents/r6_summary_through_september_26_2020.pdf</u> (37.0 μ g/m³ on July 18, 2016 at 238 Chad Baker; 20.5 μ g/m³ on Jan. 11, 2017 at East St. John the Baptist High; 28.2 μ g/m³ on Oct. 1, 2018 at 238 Chad Baker; 10.0 μ g/m³ on Mar. 28, 2019 at Fifth Ward Elementary; 24.1 μ g/m³ on January 18, 2020 at 238 Chad Baker) (attached).

LDEQ have pointed to reduced ambient levels in recent years. EPA has claimed that Denka reduced its emissions by 85% compared to 2014 levels.⁵⁴ But EPA has provided no emission test data supporting this representation. Critically, regardless of such a claimed reduction in the *percentage* of emissions, the air monitoring between the time when pollution controls were supposedly implemented and the present time has continued to show high ambient levels of chloroprene, far exceeding EPA's unacceptability benchmark and the IRIS health reference value.⁵⁵

Remarkably, even when Denka's chloroprene emissions have remained significantly higher than EPA's recommended levels, EPA has reduced the frequency of air monitoring, even stating that it would end air monitoring in 2020.⁵⁶ EPA's website contains no air monitoring data beyond March 25, 2021,⁵⁷ and although it recently extended the 2020 monitoring program, EPA has not specified for how long it will continue air monitoring.⁵⁸

The community is extremely concerned about EPA's reduction in air monitoring. As a result of the reduced frequency of air monitoring since March 1, 2019, combined with the still-high chloroprene samples, the community is concerned that Denka has not reduced its emissions to levels that will not cause ongoing unacceptable cancer risk and other harm to public health. Even the limited data available show extremely high levels of ambient chloroprene detected during the most recent months for which data are available.⁵⁹

Denka has also performed some fenceline monitoring during this time, but Denka's data are not reliable because they do not regularly go through an EPA quality check and quality assurance process. Furthermore, CCSJ is unaware of what monitoring method it employs and

⁵⁴ U.S. Envt'l Prot. Agency, 2014 NATA Emissions Updates 1 (July 28, 2020),

https://www.epa.gov/sites/production/files/2018-08/documents/2014_nata_updates_to_emissions.pdf; see U.S. Envt'l Prot. Agency, ADDENDUM TO SUMMARY REPORT Air Monitoring for Chloroprene Concentrations in LaPlace, LA from May 25, 2016 through September 26, 2020 (Nov. 2020), https://www.epa.gov/sites/production/files/2020-11/documents/addendum-tp-summary-report-november-2020.pdf.

 ⁵⁵ See, e.g., U.S. Envt'l Prot. Agency, DENKA Air Monitoring Summary Sheet May 25, 2016 September 26, 2020, <u>https://www.epa.gov/sites/production/files/2020-</u>

<u>10/documents/r6_summary_through_september_26_2020.pdf</u> (28.2 μ g/m³ on Oct. 1, 2018 at 238 Chad Baker; 10.0 μ g/m³ on Mar. 28, 2019 at Fifth Ward Elementary; 24.1 μ g/m³ on January 18, 2020 at 238 Chad Baker) (attached).

⁵⁶ U.S. Envt'l Prot. Agency, *LaPlace, Louisiana – Air Monitoring*, <u>https://www.epa.gov/la/laplace-louisiana-air-monitoring-0</u> (last visited Apr. 28, 2021).

⁵⁷ U.S. Envt'l Prot. Agency, *Denka air monitoring data summaries*, <u>https://www.epa.gov/la/denka-air-monitoring-data-summaries</u> (last visited Apr. 27, 2021).

⁵⁸ Letter from EPA to Hugh P. Lambert (Apr. 28, 2021) (attached).

⁵⁹ See, e.g., U.S. Envt'l Prot. Agency, *Continuous Air Monitoring Summary Results for Chloroprene* March 10, 2020 – February 3, 2021, https://www.epa.gov/sites/production/files/2021-

<u>02/documents/continuous-monitoring-summary-march-10-2020-through_february-03-2021.pdf</u> (10.700 μ g/m³ on Oct. 3, 2020 at Levee, and 17.588 μ g/m³ on Dec. 12, 2020 at Chad Baker).

whether the method is EPA-approved. According to Denka's data, the highest concentration of chloroprene in March 2021 was 5.9 μ g/m³, exceeding 0.2 μ g/m³ in by a factor of 29.5 times.⁶⁰

Fenceline monitoring is essential to assure compliance with the Clean Air Act, as EPA has recognized.⁶¹ It is also vital to give the community, as well as state, local, and federal governments, the information they need to ensure Denka's emissions are finally reduced to the extent necessary to end the public health emergency created by chloroprene emissions. As high ambient chloroprene concentrations have continued in recent months, the community does not understand why EPA has reduced and has been planning to end the monitoring.⁶² Although a recent letter states that the 2020 monitoring program is being "extended,"⁶³ it is unclear for how long, and ending the monitoring would be untenable from the community's perspective.

iii. Inspection and Enforcement

In the 2016 Action Plan, EPA stated it was reviewing information from Denka "necessary to determine compliance with the CAA, the emissions inventory requirements of the Louisiana State Implementation Plan, and the facility permit."⁶⁴ In 2021, EPA asked Denka to explain the high 2020 chloroprene concentration levels.⁶⁵ EPA, however, has not updated the community as to its conclusions on the information it received from Denka since 2016. EPA also has not informed the community as to whether it has conducted any on-site compliance inspections since 2016.

iv. Health

In the 2016 Action Plan, EPA acknowledged how toxic air pollution harms the health of St. John residents. However, EPA has not taken the necessary concrete steps since then to protect St. John residents from the harms of toxic air pollution.

In the Action Plan, EPA acknowledged that students who go to school in St. John are at risk. According to the Louisiana Department of Human Health report to which the EPA cited, East St. John Elementary School was "located in a high risk area situated among several industrial facilities that produce air-borne particulates and the risk of chemical releases" and the "should be moved back to its permanent location at the earliest possible time."⁶⁶ EPA, however, has failed to ensure that East St. John Elementary School, or the nearby Fifth Ward Elementary

⁶⁰ Wilma Subra and Louisiana Environmental Network, *Denka Performance Elastomer Former DuPont Pontchartrain Works* (Apr. 16, 2021) (attached).

⁶¹ National Emission Standards for Hazardous Air Pollutants: Petroleum Refinery Sector, 85 Fed. Reg. 6064, 6066 (Feb. 4, 2020).

⁶² U.S. Envt'l Prot. Agency, *LaPlace, Louisiana – Air Monitoring*, <u>https://www.epa.gov/la/laplace-louisiana-air-monitoring-0</u> (last visited Apr. 28, 2021).

⁶³ Letter from EPA to Hugh P. Lambert (Apr. 28, 2021) (attached).

⁶⁴ See U.S. Envt'l Prot. Agency, Action Plan 5 (June 2016),

https://www.epa.gov/sites/production/files/2016-06/documents/epa-laplace-action-plan.pdf (attached). ⁶⁵ Letter from EPA to Denka (Jan. 6, 2021),

https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=12509693&ob=yes&child=yes.

⁶⁶ U.S. Envt'l Prot. Agency, Action Plan 5 (June 2016),

https://www.epa.gov/sites/production/files/2016-06/documents/epa-laplace-action-plan.pdf (attached).

School where students face a particularly high cancer risk due to chloroprene emissions, has in fact relocated, or that the school has a plan to minimize the entry of particulates into the school, manage indoor air quality, or respond to any releases of pollution.

EPA also acknowledged that a study of industrial releases of known carcinogens concluded that St. John the Baptist was consistently one of the highest contributors to statewide cancer-specific model scores compared to other parishes in Louisiana. EPA acknowledged that, according to the study, EPA's Risk-Screening Environmental Indicators ("RSEI") model results should "guide and influence state monitoring efforts, regulatory oversight, health investigations, and clinician awareness."⁶⁷ However, EPA failed to support any of these actions.

v. Environmental Justice

In the 2016 Action Plan, EPA acknowledged that the chloroprene emissions in St. John are an environmental justice issue and indicated that St. John the Baptist Parish, LDEQ, and EPA had scheduled a community meeting to discuss chloroprene emissions and monitoring. However, EPA has since taken no action to end the environmental injustice in St. John or to ensure open communication with the community about disproportionate exposure and reducing chloroprene emissions.

e. The EPA IRIS value for chloroprene reflects the best available science.

EPA issued the 2010 IRIS value for chloroprene, which is the partial basis for the NATA's high-cancer risk determination for St. John, after a thorough scientific evaluation, peer review, and public comment. But for years, Denka has attempted to question and attack this final assessment and risk value determination, and in recent years EPA created a whole process to entertain its attack on this science.

In 2010, EPA finalized an updated toxicological assessment of chloroprene and cancer risk value of 0.002 μ g/m³ that continues to reflect the best available science.⁶⁸ At that time, EPA concluded that chloroprene is "likely to be carcinogenic to humans" through a mutagenic mode of action and with the primary exposure route being the inhalation pathway.⁶⁹ This conclusion was based on a comprehensive and systematic review of the available evidence on chloroprene toxicity. An inhalation unit risk ("IUR") was set based on the available toxicological studies on increased incidence of tumors in a number of organ systems observed in both rats and mice, as well as epidemiological studies, which showed an increased risk of liver cancer and lung cancer among workers. IRIS concluded based on the best available science that: "These tumors generally appeared earlier with increasing exposure level and showed statistically significantly increasing trends with increasing exposure level [to chloroprene]."⁷⁰ EPA also determined in the 2010 IRIS that chloroprene operates with a mutagenic mode of action for carcinogenicity, such

⁶⁷ *Id.* at 6.

⁶⁸ 2010 IRIS, *supra* note 8.

⁶⁹ 2010 IRIS, *supra* note 8; 2010 IRIS Summary, *supra* note 8, at 11.

⁷⁰ 2010 IRIS, *supra* note 8, at 148.

that early-life exposure to babies, young children, or *in utero*, causes increased lifetime cancer risk.⁷¹

EPA's evidence and conclusions in the 2010 IRIS are directly supported by or consistent with findings of similarly highly regarded, scientific agencies, like the National Toxicology Program ("NTP") and the International Agency for Research on Cancer ("IARC"). These agencies have similarly concluded that the available evidence shows that chloroprene is "reasonably anticipated to be a human carcinogen" (NTP) and is "possibly carcinogenic to humans" (IARC).⁷² Each institution—EPA, NTP, and IARC—is highly reputable, respected, and known to conduct robust, independently peer-reviewed research on the toxicity of chemicals. The high standards of scientific integrity applied by each of these agencies results in chemical assessments that are both unbiased and reliable.⁷³

Unfortunately, in 2017, after the IRIS value was finalized and used to assess cancer risk in the 2011 NATA released in 2015, Denka filed a request for correction (RfC) of the 2010 IRIS cancer risk value under the Information Quality Act. Denka claimed to have "derived an IUR for chloroprene that is 156 times lower than that derived by US EPA."⁷⁴ In 2018, EPA denied Denka's RfC to revise the risk analysis for chloroprene, finding that EPA's underlying toxicological review was consistent with its Information Quality Guidelines.⁷⁵ Consequently, however, Denka was given 90 days to submit a request for reconsideration (RfR), and EPA granted its request for an extension to submit the RfR. In 2018, Denka submitted a RfR alleging that the 2010 IRIS cancer risk value warranted reconsideration due to new developments to a physiologically based pharmacokinetic ("PBPK") model for chloroprene. The PBPK model Denka cited—concluding that the IUR for chloroprene was 156 times lower than the EPA's IUR—was developed by Ramboll Environ, an industry-consulting group hired by Denka.⁷⁶

⁷¹ 2010 IRIS Summary, *supra* note 8, at 17.

⁷² Dep't of Health and Human Servs. Nat. Toxicology Prog., *Report on Carcinogens, Chloroprene* (14 ed. 2016), <u>https://ntp.niehs.nih.gov/ntp/roc/content/profiles/chloroprene.pdf</u>; IARC, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 71 – Chloroprene.

⁷³ Similarly, California's Office of Environmental Health Hazard Assessment has long recognized chloroprene as a chemical "known to cause cancer." California Office of Environmental Health Hazard Assessment, *Chloroprene, Cobalt sulfate heptahydrate, and Fenoxycarb Listed as Known to Cause Cancer* (June 2, 2000), <u>https://oehha.ca.gov/proposition-65/crnr/chloroprene-cobalt-sulfate-heptahydrate-and-fenoxycarb-listed-known-cause-cancer</u> (listing chloroprene as a carcinogen).

⁷⁴ Ramboll Environ, Basis for Requesting Correction of the US EPA Toxicological Review of Chloroprene 66 (June 2017) <u>https://www.epa.gov/sites/production/files/2017-06/documents/exhibit_1-6_to_request_for_correction.pdf</u>.

⁷⁵ U.S. Envt'l Prot. Agency, *EPA Response to RfC 17002, Jennifer Orme-Zavaleta, PhD, NCEA, to Robert Holden, Denka* 25 (Jan. 25, 2018), <u>https://www.epa.gov/sites/production/files/2018-08/documents/rfr exhibits a-g n3630829x7a3a0.pdf.</u>

⁷⁶ Request for Reconsideration (RfR 17002A), Robert E. Holden, submitted on behalf of Denka Performance Elastomer LLC (July 23, 2018), https://www.epa.gov/sites/production/files/2018-08/documents/rfr_final_draft_7-23-2018_n3630830x7a3a0.pdf; *see id.* at 4, n.6 ("The new PBPK model confirms that the current EPA IUR for chloroprene is approximately 156 times too high."). *See also* U.S. Envt'l Prot. Agency, *Summary of Meeting Action Items, Event Title: Chloroprene Request for Correction/Request for Reconsideration* (July 19, 2018),

According to meeting notes published on the IRIS Stakeholder Meetings webpage, EPA staff met with Denka, Ramboll, and LDEQ on four separate occasions.⁷⁷ The meeting notes detail that EPA staff not only agreed to review the proposed PBPK model, but also informally stated that it would suggest improvements for revisions and arrange for an external peer review of the model.⁷⁸

In November 2019, members of CCSJ—along with scientists and advocates from various academic institutions and environmental groups—met with EPA IRIS staff to express concerns regarding the reconsideration process and EPA's consideration of the request to weaken the chloroprene cancer risk value.⁷⁹ In 2017 and 2018, academic scientists had submitted third party correspondence not only requesting that EPA object to Denka's original RfC, but also noting that Denka had not provided the scientific rationale to justify reopening an evaluation of the 2010 IRIS cancer risk value.⁸⁰ At the 2019 meeting with EPA, the aforementioned academic scientists—along with members of CCSJ, community and environmental advocates, and a former EPA scientist who worked on the 2010 Chloroprene Toxicological Review—maintained the position that the IRIS risk value was in fact based on the best available science despite attempts to undermine the peer review toxicological assessment.

Over the course of two-and-a-half years since denying Denka's RfC, EPA continued to meet and correspond with Denka and Ramboll as the proposed PBPK model was developed, most recently holding a meeting on December 15, 2020.⁸¹ According to correspondence obtained via FOIA requests, EPA staff advised Ramboll (the author of the PBPK model) on

⁷⁹ Letter from CCSJ et al. to John Vandenberg (Aug. 2, 2019), Re: Requesting a Meeting; Opposition to Denka's Request for Reconsideration of EPA's Toxicological Review of Chloroprene (RFC 17002) https://static1.squarespace.com/static/5b3538249d5abb21360e858f/t/5dd6384ff3784826f8dfe6e4/157432 0208532/EPA+meeting+request+-+IRIS+chloroprene+assessment.pdf; *see* University Network for

Human Rights, *Concerned Citizens of St. John Parish Meet with EPA in Washington, D.C.* (Nov. 21, 2019), <u>https://www.humanrightsnetwork.org/press/2019/11/20/concerned-citizens-of-st-john-parish-meet-with-epa-in-washington-dc</u>.

<u>https://cfpub.epa.gov/ncea/iris2/event_attachment.cfm?layout=none&attach_id=544</u>. The model has not completed an independent peer-review process.

⁷⁷ U.S. Envt'l Prot. Agency, *IRIS Calendar Meetings Requested by Specific Members of the Public: Stakeholder Meeting: Chloroprene*, <u>https://iris.epa.gov/Events/#stakeholderMeetings</u> (last visited Mar. 24, 2021) (showing stakeholder meetings requested by the public on October 30, 2017, July 19, 2018, June 12, 2019, and December 15, 2020).

⁷⁸ U.S. Envt'l Prot. Agency, Summary of Meeting Action Items Event Title: Chloroprene Request for Correction/Request for Reconsideration (July 19, 2018); U.S. Envt'l Prot. Agency, Summary of Meeting Action Items Event Title: Chloroprene Request for Correction/Request for Reconsideration (Follow-up) (June 12, 2019, updated July 1, 2019).

⁸⁰ Third Party Correspondence (RfC 17002) from Karl Brooks, PhD, to Tina Bahadori, PhD and Kristina Thayer, PhD, NCEA (Sept. 8, 2017), <u>https://www.epa.gov/sites/production/files/2017-</u>

<u>10/documents/response_to_denka_rfc_17002_re_chloroprene.pdf;</u> Third Party Correspondence (RfC 17002) from Marco Kaltofen, PhD and Keeve Nachman, PhD, John Hopkins University, to EPA (July 23, 2018), <u>https://www.epa.gov/sites/production/files/2018-09/documents/rfr_17002a_3rd_party_correspondence.pdf</u>.

⁸¹ U.S. Envt'l Prot. Agency, *IRIS Calendar Meetings Requested by Specific Members of the Public: Stakeholder Meeting: Chloroprene*, <u>https://iris.epa.gov/Events/#stakeholderMeetings</u> (last visited Mar. 24, 2021) (showing a stakeholder meeting requested by the public on December 15, 2020).

methods to improve and refine its PBPK model ahead of its publication in April 2020.⁸² Indeed, Petitioners expressed concerns to the Office of Research and Development Chemical and Pollutant Assessment Division ("CPAD") in October 2020 comments stating:

EPA's current actions in response to DPE's Request for Reconsideration appear to be non-objective and infected with bias for the regulated industry. Commenters are unaware of any action, current or archived, that the IRIS program has undertaken that is similar to the process for the Request for Reconsideration (case #17002A).⁸³

Petitioners submitted written and oral comments in response to the external peer review process initiated by CPAD on August 24, 2020 and carried out by Versar, an EPA contractor, on October 5, 2020.⁸⁴ Versar convened an external panel to independently review the recently published PBPK modeling report published by Ramboll⁸⁵ as well as a supplemental uncertainty analysis conducted by EPA staff.⁸⁶

According to charge questions drafted by EPA, the express purpose of the external review process was to "provide advice on the applicability of the chloroprene PBPK model developed by Ramboll for possible use in a human health risk assessment for inhalation exposure to chloroprene, as well as input on the applicability of an uncertainty analysis proposed by U.S. EPA."⁸⁷ In other words, the advice from the panel would be used to determine the validity and applicability of the PBPK chloroprene model, developed by Ramboll, to "inform future decisions regarding the RFR"⁸⁸ and "for possible use in updating the 2020 [IRIS] Toxicological Review of

⁸⁴ Id.; U.S. Envt'l Prot. Agency, Post-Meeting Peer Review Summary Report: External Peer Review of a Report on Physiologically Based Pharmacokinetic (PBPK) Modeling for Chloroprene (Ramboll, 2020) and a Supplemental Analysis of Metabolite Clearance D-47 (Dec. 17,

⁸² Documents disclosed in response to The Lambert Firm FOIA Request (email correspondence between Harvey Clewell (Ramboll Environ) and Paul Schlosser (US EPA) dated August 3, 2018 and August 8, 2014).

⁸³ Hampton et al., Comment Letter on Notice of Public Comment Period on Technical Documents for External Peer Review and the Pool of Candidate Peer Reviewers for a Report on Physiologically Based Pharmacokinetic (PBPK) Modeling for Chloroprene and a Supplemental Analysis of Metabolite Clearance, 85 Fed. Reg. 44,885 (July 24, 2020) Docket: EPA-HQ-ORD-2020-0181-0001 (Aug. 24, 2020), https://www.regulations.gov/comment/EPA-HQ-ORD-2020-0181-0016.

^{2020),}https://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=541872.

⁸⁵ Ramboll, Incorporation of in vitro metabolism data in a physiologically based pharmacokinetic (PBPK) model for chloroprene (Apr. 23, 2020),

https://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=540598

⁸⁶ U.S. Envt'l Prot. Agency, Supplement: Uncertainty Analysis of In Vitro Metabolic Parameters and of In Vitro to In Vivo Extrapolation (IVIVE) Used in a Physiologically Based Pharmacokinetic (PBPK) Model for Chloroprene (July 2020),

https://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=540771.

⁸⁷ U.S. Envt'l Prot. Agency, *Draft Charge Questions for Peer Review of Chloroprene PBPK Modeling* (July 2020), <u>https://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=540894</u>.

⁸⁸ U.S. Envt'l Prot. Agency, *External Peer Review of a Report on Physiologically Based Pharmacokinetic* (*PBPK*) *Modeling for Chloroprene and a Supplemental Analysis of Metabolite Clearance* (July 2020), https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=349015.

Chloroprene.^{**89} The independent review panel met in October 2020, where Ramboll had the opportunity to interface with the panel and share additional information in response to questions presented by the peer reviewers.

The peer review process concluded in December 2020 with the publishing of a summary report on the PBPK modeling and the EPA supplemental analysis. The "General Impressions" section of the peer review report made clear that the majority of the nine peer reviewers were "wary" of key extrapolation parameters and assumptions made in the Ramboll report.⁹⁰ Indeed, one reviewer stated, "the presented PBPK model should not be used … to extrapolate the mouse data to a human effect dose for application in the risk assessment."⁹¹ Yet another reviewer went as far as to state:

My overall opinion is that it is **NOT PRUDENT** for the EPA to grant the requested 137X relaxation of the risk estimate in the IRIS risk assessment, at this time, to Ramboll/Denka based on the science presented for this Review, as well as on my own evaluation of some of the related state-of-the-science relevant to this Project. My general impression was that Ramboll/Denka had dismissed or ignored some of the available science and chose a simplistic approach of relying on a previously successful example (Revision of Methylene Chloride Risk Assessment) by the same lead scientists. In doing so for this highly reactive chemical, chloroprene, the Ramboll/Denka petition left many holes in their scientific arguments. Thus, while PBPK Modeling is a very useful tool for risk assessment, the Ramboll/Denka application is not scientifically strong enough, at this time, to support their petition.⁹²

The vigorous peer review process coupled with doubts raised by peer reviewers regarding the shortfalls of the Ramboll report (outlined above and detailed further in the external peer review report), demonstrate that EPA should reject the PBPK model for use in this and any future human health risk evaluation for chloroprene. Moreover, Petitioners echo concerns raised in

⁸⁹ U.S. Envt'l Prot. Agency, *Background Description for Chloroprene PBPK Modeling* (July 2020), <u>https://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=540770</u>.

⁹⁰ See Versar, Inc., Post-Meeting Peer Review Summary Report: External Peer Review of a Report on Physiologically Based Pharmacokinetic (PBPK) Modeling for Chloroprene (Ramboll, 2020) and a Supplemental Analysis of Metabolite Clearance (U.S. EPA, 2020) (Dec. 17, 2020),

https://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=541872. See id. at 10 (Leslie Z. Benet, PhD stating "I am also very wary of PBPK modeling from a mechanistic point of view. I agree that PBPK models are highly useful, with predictions that can be trusted, especially when sensitivity analyses are employed. However, the objective of PBPK models is to fit the data, ignoring and often hiding basic scientific principles and including 'fudge' factors. I am highly suspect of supposed mechanistic findings resulting from PBPK model fitting and have detailed in a number of recent publications various mechanistic errors inherent in the basic drug metabolism PBPK models, which doesn't necessarily make them less useful in a particular situation. There are certainly a number of assumptions in the chloroprene PBPK models of Himmelstein, Yang and Clewell (Ramboll) that are hard to accept in terms of basic scientific principles.")

⁹¹ See id. at 12 (Jochem Louisse, PhD).

⁹² See id. at 15-16 (Raymond S.H. Yang, PhD).

previous third party correspondence regarding Denka's RfR and urge EPA to reaffirm the cancer risk value derived in the 2010 Toxicological Review of Chloroprene.

On March 1, 2021, Denka formally withdrew its 2018 request for reconsideration, stating its plans to revise the 2020 PBPK model and citing "new" epidemiological evidence as rationale to submit a new request for correction of the 2010 chloroprene cancer risk value.⁹³ However, Petitioners, along with EPA, have evaluated the epidemiological evidence published since EPA completed the 2010 chloroprene assessment, and EPA has documented the inadequacy of such evidence to be used to support a reevaluation of the cancer risk value.⁹⁴ Rather than continue an endless cycle of inappropriate and unnecessary reconsideration of the science, EPA should continue to use and apply the 2010 chloroprene risk value in regulatory and enforcement processes and take immediate action to protect the community members exposed to Denka's chloroprene emissions.

f. EPA has failed to protect St. John residents from other toxic air pollution, such as ethylene oxide.

EPA has also failed to monitor or require monitoring for ethylene oxide and to ensure that emissions of and cancer risk from this pollutant is reduced. In particular, EPA has failed to ensure that emitters of ethylene oxide and other toxic air pollutants in and around St. John comply with national air toxics standards that provide an "ample margin of safety to protect public health," as the Clean Air Act requires. 42 U.S.C. § 7412(f)(2)(A). EPA has failed to ensure a reduction in emissions of ethylene oxide. Specifically, EPA has failed to sufficiently regulate, monitor, or require monitoring for ethylene oxide. Union Carbide, St. Charles appears to be subject to the NESHAP for Miscellaneous Organic Chemical Manufacturing ("MON Rule"). EPA updated the MON Rule in 2020, but it failed to strengthen the rule sufficiently to satisfy the Clean Air Act and to protect public health.⁹⁵ As a result, Union Carbide continues to

⁹⁵ See, e.g., U.S. Envt'l Prot. Agency, Detailed Facility Report: Union Carbide,

⁹³ Robert Holden, Request for Reconsideration (RFR #17002A) Chloroprene Toxicological Review (Mar. 1, 2021), <u>https://www.epa.gov/sites/production/files/2021-</u>

^{03/}documents/rfr_17002a_withdrawal_ltr_030121.pdf

⁹⁴ U.S. Envt'l Prot. Agency, *EPA Response to RfC 17002, Jennifer Orme-Zavaleta, PhD, NCEA, to Robert Holden, Denka* 25 (Jan. 25, 2018), <u>https://www.epa.gov/sites/production/files/2018-08/documents/rfr_exhibits_a-g_n3630829x7a3a0.pdf</u> (stating that "the systematic review of chloroprene studies" resulted in "the Agency stand[ing] behind the conclusions made in the 2010 IRIS Toxicological Review of Chloroprene, including the derived cancer values. The new studies on chloroprene do not provide a reasonable basis for reassessing the human health effects due to chronic chloroprene exposure").

https://echo.epa.gov/detailed-facility-report?fid=110000597104; see also National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing Residual Risk and Technology Review, 85 Fed. Reg. 49,084 (Aug. 12, 2020) (codified at 40 C.F.R. Part 63, Subpart FFFF); RISE St. James et al., Petition for Reconsideration of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Miscellaneous Organic Chemical Manufacturing (MON) Risk and Technology Review; Final Rule, 85 Fed. Reg. 49,084 (Aug. 12, 2020), Docket No. EPA-HQ-OAR-2018-0746 (Oct. 13, 2020), https://earthjustice.org/documents/legal-document/petition-for-reconsideration-mon-rule; see also RISE St. James et al. Pet'n for Review, No. 20-1417 (D.C. Cir. Oct. 13, 2020) (consol. with No. 20-1414).

emit levels of ethylene oxide that harm public health in St. John. Union Carbide, along with Denka, also appears to be regulated under EPA's Synthetic Organic Chemical Manufacturing or Hazardous Organic National Emission Standards, which EPA has not reviewed or strengthened for years.⁹⁶

It also appears that EPA has failed to effectively regulate other air toxics sources in and around St. John. For example, Evonik Corporation's plant in Reserve, Louisiana appears to be permitted as an area or minor source. It is unclear what permit oversight EPA has undertaken for this source or what air toxics regulations, if any, Evonik is currently complying with.⁹⁷

g. The Louisiana Department of Environmental Quality has failed to protect St. John residents from Denka's chloroprene emissions.

To date, the local and state response to chloroprene has been, at best, nominal and ineffective. Louisiana has failed to regulate Denka's chloroprene emissions as needed to protect public health. Louisiana's ambient air standard for chloroprene is an astonishing 857.00 μ g/m³—more than 4,000 times higher than EPA's recognized unacceptable concentration of 0.2 μ g/m³ and more than 400,000 times higher than EPA's "preferable" concentration of 0.002 μ g/m^{3.98} LA. ADMIN. CODE tit. 33, § 5112, Table 51.2 (2007). Louisiana has not amended the ambient air standard for chloroprene to follow the IRIS value, even though EPA's 2010 IRIS assessment concluded that chloroprene is "likely to be carcinogenic to humans;" EPA's 2011 and 2014 NATAs showed exceptionally high cancer risk around Denka due primarily to chloroprene emissions;⁹⁹ and EPA concluded in 2016 that a concentration of 0.002 μ g/m³ is "preferable" to protect public health.¹⁰⁰ Louisiana has acted with gross negligence in the face of years of a known health crisis due to chloroprene emissions.¹⁰¹

LDEQ has failed to ensure that Denka reduce its chloroprene emissions sufficiently to protect public health. In 2017, Denka entered into an Administrative Order on Consent ("AOC") with LDEQ requiring Denka to install a series of new control technologies and implement measures designed to reduce emissions of chloroprene by 85 percent from the facility's 2014 baseline chloroprene emission.¹⁰² The monitoring data discussed above, however, shows that Denka's reduction of its chloroprene emissions over the last several years is insufficient: Denka's emissions remain remarkably high, causing ambient air levels to be as astronomical as,

⁹⁶ There is a pending Clean Air Act lawsuit against EPA calling for the agency to review and strengthen these rules. *Tex. Envt'l Justice Advocacy Services v. Regan*, No. 1:20-cv-3733 (D.D.C. Dec. 18, 2020).
⁹⁷ https://echo.epa.gov/detailed-facility-report?fid=110017758381.

⁹⁸ See 2016 EPA Chloroprene Memo, supra note 4 (attached).

⁹⁹ U.S. Envt'l Prot. Agency, 2011 National Air Toxics Assessment (Dec. 17, 2015), https://www.epa.gov/national-air-toxics-assessment/2011-nata-assessment-results; 2014 NATA, supra note 1.

¹⁰⁰ See 2016 EPA Chloroprene Memo, supra note 4 (attached).

¹⁰¹ 2010 IRIS Summary, *supra* note 8, at 11.

¹⁰² LDEQ, Administrative Order on Consent 2 (Jan. 6, 2017),

https://www.deq.louisiana.gov/assets/docs/Denka/DENKA_AdministrativeOrderOnConsentAOCJan2017 .pdf.

for example, 17.588 μ g/m³ on December 12, 2020 at Chad Baker and 13.194 μ g/m³ on January 18, 2021 at Levee, according to EPA air monitoring data.¹⁰³

Furthermore, although LDEQ has inspected Denka, it has often failed to notify the public as to the results of the inspection. For example, EPA and LDEQ conducted an on-site compliance inspection on June 6, 2016 but failed to notify the public as to the results of that inspection.¹⁰⁴ Even worse, LDEQ has found ICIS-Air-related violations during some inspections, but it has failed to notify the public as to the exact nature of the violations and whether Denka remedied them. Specifically, LDEQ performed TV ACC Receipt/Review Inspections on March 29, 2019 and April 29, 2020 and found deviations.¹⁰⁵ However, LDEQ failed to notify the public as to whether Denka remedied these violations. As far as CCSJ is aware, LDEQ is continuing to allow high ambient concentrations of chloroprene to occur, without consequence or action.

CCSJ cannot rely on any effective future action by the local or state government, including LDEQ. In addition to the failures discussed above, LDEQ has also more broadly failed to identify CAA violations and issue enforcement actions across the state. The Louisiana Legislature's audit of LDEQ concluded that it "could strengthen its monitoring and enforcement processes by identifying violations and issuing enforcement actions more timely."¹⁰⁶ Specifically, LDEQ neither issues enforcement actions in a timely manner nor effectively tracks the penalties it has assessed and whether facilities have paid them.¹⁰⁷ LDEQ also "faces challenges in performing its required regulatory duties, including low staffing levels, high workloads, frequent turnover of staff, and ineffective data systems."¹⁰⁸

Local governments have also failed to protect community members' health from chloroprene emissions. Community members have repeatedly advocated for the relocation of Fifth Ward Elementary School, located just blocks away from Denka.¹⁰⁹ A Louisiana Department of Health ("LDH") study concluded that Fifth Ward Elementary School students

¹⁰³ U.S. Envt'l Prot. Agency, *Continuous Air Monitoring Summary Results for Chloroprene March 10*, 2020 – *February 3*, 2021, <u>https://www.epa.gov/sites/production/files/2021-02/documents/continuous-</u> monitoring-summary-march-10-2020-through_february-03-2021.pdf.

¹⁰⁴ See U.S. Envt'l Prot. Agency, Action Plan 5 (June 2016),

https://www.epa.gov/sites/production/files/2016-06/documents/epa-laplace-action-plan.pdf (attached). ¹⁰⁵ See U.S. Envt'l Prot. Agency, Detailed History Report, <u>https://echo.epa.gov/detailed-facility-report?fid=110067396669</u>.

¹⁰⁶ Louisiana Legislative Auditor, *Monitoring and Enforcement of Air Quality* 3 (Jan. 20, 2021), http://app.lla.state.la.us/PublicReports.nsf/0/4F3372ABDDF0F271862586630067C25D/\$FILE/00022660 A.pdf?OpenElement&.7773098.

¹⁰⁷ See id.

 $^{^{108}}$ *Id.* at 4.

¹⁰⁹ Nick Reimann, *St. John School Board panel suggest study on moving students from school near chemical plant*, NEW ORLEANS ADVOCATE (Aug. 27, 2019),

https://www.nola.com/news/education/article_275fc7d2-c83a-11e9-8fa9-87f1f4a3225a.html; St. John the Baptist Parish School Board, *Proceedings* 14 (Aug. 15, 2019),

https://4.files.edl.io/a7b7/08/21/19/170128-caa64fa9-39c6-45b3-83fd-be5c1091fce6.pdf (CCSJ advocating to School Board for the relocation of Fifth Ward Elementary School).

face a higher cancer risk due to chloroprene emissions.¹¹⁰ Nonetheless, LDH concluded that "transferring children from the current Fifth Ward Elementary School location to another location within the community would not greatly decrease their theoretical risks of developing excess cancers from exposure to chloroprene."¹¹¹ In other words, LDH has refused to relocate these students because it admits there is no safe place for them to go to school in the parish. The entire parish suffers a high cancer risk, but some areas are especially dangerous. The St. John the Baptist Parish School Board also has refused to relocate the Fifth Ward Elementary School. After LDH and LDEQ conferred, "LDH officials indicated they have found no reason that children cannot attend the school" because "[m]onitoring has shown spikes of chloroprene, not continuous exposure."¹¹² LDH and LDEQ failed to demonstrate, however, that spikes in chloroprene emissions do not pose a threat to students' health.

In response to the local government's failure to protect students, a parent of a student at Fifth Ward Elementary School sued St. John the Baptist Parish School Board, demanding that it relocate students due to concerns that they were inhaling a likely carcinogen, chloroprene, from Denka.¹¹³ Additionally, a class of students in St. John schools sued the St. John the Baptist School Board to relocate them to safer locations that are less exposed to toxic industrial emissions.¹¹⁴ An independent scientist assessed the environmental conditions of St. John public schools and concluded that: conditions in St. John Parish necessitate precautionary measures to protect student health, Fifth Ward Elementary students face unacceptably high health risks, and St. John STEM Magnet High is located at a high-risk site with previously documented illnesses.¹¹⁵

Maps showing impacts and demographics of the St. John community, including school locations, accompany this petition and are available by request to Earthjustice.

¹¹⁰ Louisiana Dept. of Health, A REFERENCE DOCUMENT FOR THE PRELIMINARY ASSESSMENT OF CHLOROPRENE LEVELS IN ST. JOHN THE BAPTIST PARISH: Evaluation of Potential Health Risks for Elementary School Students based on Early Sampling Results following Emissions Reductions 14-15 (June 14, 2018), <u>https://ldh.la.gov/assets/oph/Center-</u> EH/DENKA/PreliminaryChloropreneReport.pdf.

¹¹¹ *Id.* at 15.

¹¹² Louisiana Department of Environmental Quality, Denka: The Path Forward,

https://www.deq.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=denka (last visited Mar. 8, 2021).

¹¹³ Nick Reimann, Parent sues St. John School Board, demanding it relocate students away from chemical plant, NEW ORLEANS ADVOCATE, Nov. 12, 2018,

https://www.nola.com/news/education/article_b938bbd2-de25-57ce-9756-af009f9b1fc7.html.

¹¹⁴ See Letter from Omavi Shukur and Monique Lin-Luse, NAACP Legal Defense and Educational Fund, Inc. ("NAACP LDF") to Assistant District Attorney of St. John the Baptist Parish, Orenthal Jasmine, Re: Harris v. St. John the Baptist School Board, C.A. No. 13,212-A3 (Mar. 8, 2021) (attached); NAACP LDF, *Case: St. John the Baptist Parish Schools Environmental Conditions*

https://www.naacpldf.org/case-issue/st-john-the-baptist-parish-schools-environmental-conditions/ (last visited May 3, 2021).

¹¹⁵ Adrienne Katner, D.Env., M.S., Independent Assessment of the Environmental Conditions of Public School Locations: St. John the Baptist Parish, Louisiana 40 (Mar. 8, 2021) (attached).

II. Under The Clean Air Act, EPA Is Authorized To Use Its Emergency Power To Protect St. John Residents Because Industrial Sources' Toxic Air Emissions Present An Imminent And Substantial Endangerment To Public Health, Welfare, And The Environment.

The Clean Air Act authorizes EPA to use emergency powers "upon receipt of evidence that a pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to public health or welfare, or the environment." 42 U.S.C. § 7603. The Denka facility's alarmingly high chloroprene emission levels, and the high ethylene oxide emissions from nearby sources, satisfy the conditions for use of EPA's emergency powers under the Clean Air Act. As detailed below, the risk to residents' health is both "imminent" and "substantial."¹¹⁶ EPA must use its emergency powers and rulemaking authority to protect St. John residents from the imminent and substantial endangerment of chloroprene and ethylene oxide emissions to public health, welfare, and the environment.

First, the endangerment that industrial sources' air toxics emissions pose to public health, welfare, and the environment is "imminent." 42 U.S.C. § 7603. Congress implemented the emergency powers provision to allow EPA to intervene "early enough to prevent [a] potential hazard from materializing." 8 H.R. Rep. No. 95-294, 95th Cong, lst Sess. 328 (1977). Therefore, the "endangerment" EPA seeks to address need only be threatened or potential,¹¹⁷ and the endangerment is "imminent" when present conditions indicate a threat of harm, "no matter how distant the manifestation of actual harm may be."¹¹⁸ For example, EPA guidance on CAA emergency powers permit EPA "to act to seek abatement of emissions reasonably believed to be carcinogenic, even though it is uncertain how long it would take for the emissions to result in actual harm to individuals."¹¹⁹

Here, the endangerment that chloroprene and ethylene oxide emissions pose to St. John residents is beyond imminent: St. John residents are being and have *already* been exposed to dangerously high levels of these emissions and consequently, high cancer risks. EPA's own data show that St. John residents face a cancer risk as high as 1,505-in-1 million—the highest cancer risk in the nation from air pollution—due primarily to chloroprene and ethylene oxide emissions

¹¹⁶ See U.S. Envt'l Prot. Agency, *Guidance on Section 303 of the Clean Air Act* (Apr. 1999), 46 <u>https://nepis.epa.gov/Exe/ZyPDF.cgi/910215IE.PDF?Dockey=910215IE.PDF</u>.

¹¹⁷ "[T]he amendments broaden the Administrator's authority to issue emergency orders to *abate threats* to welfare and the environment, in addition to the authority to *respond to threats* to 'the health of persons.' ... Broadening section [303] ... is important to enable EPA to address emergency *threats* to ecosystems in instances where there is no readily demonstrable immediate threat to human health. For example, toxic emissions might be blowing downwind from a facility into an undeveloped natural area and *threatening to impair* that area's ecosystem. This amendment will allow EPA to order the plant to take necessary steps to *eliminate the threat* to flora and fauna." S. Rep. No. 101-228, 101st Congress, 1st Sess. 370 (1989) (emphases added). *See also Ethyl Corp. v. EPA*, 541 F.2d 1, 13 (D.C. Cir. 1976) ("The meaning of 'endanger' is not disputed. ... When one is endangered, harm is threatened; no actual injury need ever occur A statute allowing for regulation in the face of danger is, necessarily, a precautionary statute.") (analyzing Clean Air Act Section 211(c)(1)(A)).

¹¹⁸ U.S. Envt'l Prot. Agency, *Guidance on Section 303 of the Clean Air Act* 44 (Apr. 1999), <u>https://nepis.epa.gov/Exe/ZyPDF.cgi/910215IE.PDF?Dockey=910215IE.PDF</u>. ¹¹⁹ *Id.* at 45.

from nearby industrial sources.¹²⁰ Chloroprene levels of $0.2 \ \mu g/m^3$ create a cancer risk of 100in-1 million, while chloroprene levels of $0.002 \ \mu g/m^3$ create a cancer risk of 1-in-1 million.¹²¹ Denka's chloroprene emissions are far greater than EPA's recommended chloroprene levels of $0.002 \ \mu g/m^3$. For example, on September 8, 2020, chloroprene emissions at 238 Chad Baker Street were $16.0 \ \mu g/m^3 \ ^{122}$ —8,000 times the EPA's preferred value of $0.002 \ \mu g/m^3$.¹²³ The fact that nearby sources have emitted chloroprene and ethylene oxide for some time does not preclude a finding of imminent endangerment. If anything, it supports this finding because of the length of time the community has suffered this emergency, which is ongoing.¹²⁴ Additionally, any source's claimed compliance with any permit does not preclude EPA from finding endangerment and using its emergency power under § 7603.¹²⁵

Second, the endangerment that chloroprene and ethylene oxide emissions pose to public health, welfare, and the environment is "substantial." 42 U.S.C. § 7603. An endangerment is "substantial" under Section 303 "where there is a reasonable cause for concern for public health, welfare or the environment if remedial action is not taken."¹²⁶ Emissions can present a "substantial" risk even if the risk is not quantified.¹²⁷ To determine if the endangerment is "substantial," EPA considers "[a] number of factors, such as the quantities of the hazardous substances involved, the nature and degree of their hazards, or the potential for human or environmental exposure"¹²⁸

Here, sources' chloroprene and ethylene oxide emissions present a "substantial" endangerment to public health, welfare, and the environment, 42 U.S.C. § 7603, because "there is a reasonable cause for concern for public health, welfare or the environment if remedial action is not taken."¹²⁹ All of the factors EPA identified in its guidance on Section 303 weigh in favor of finding that these toxic air emissions present a "substantial" endangerment to public health, welfare, and the environment.¹³⁰ First, Denka emits alarming quantities of chloroprene, discussed above, and nearby sources also emit amounts of ethylene oxide that contribute to extremely high cancer risk. Second, the nature and degree of these pollutants' hazards are severe. Chloroprene emissions can harm near every system in the human body. In addition to

¹²⁶ U.S. Envt'l Prot. Agency, Guidance on Section 303 of the Clean Air Act 46 (Apr. 1999),

https://nepis.epa.gov/Exe/ZyPDF.cgi/910215IE.PDF?Dockey=910215IE.PDF.

¹²⁰ 2014 NATA, *supra* note 1; Sharon Lerner, *A Tale of Two Toxic Cities*, THE INTERCEPT (Feb. 24, 2019), <u>https://theintercept.com/2019/02/24/epa-response-air-pollution-crisis-toxic-racial-divide/.</u>

¹²¹ See 2016 EPA Chloroprene Memo, supra note 4 (attached).

¹²² U.S. Envt'l Prot. Agency, DENKA Air Monitoring Summary Sheet May 25, 2016 - September 26, 2020, <u>https://www.epa.gov/sites/production/files/2020-</u>

^{10/}documents/r6_summary_through_september_26_2020.pdf (attached).

¹²³ See 2016 EPA Chloroprene Memo, supra note 4 (attached).

¹²⁴ An endangerment may be imminent even when conditions giving rise to the endangerment have been present for some time, including contaminants with chronic health effects. *See In Re FCX, Inc.*, 96 B.R. 49, 55 (Bkrtcy., E.D.N.C. 1989) ("even when there is an inordinate delay [by EPA], the court must find an immediate danger to public health if in fact one exists").

¹²⁵ 40 C.F.R. § 71.25(d)(3)(i) (permit shield shall not alter or affect emergency orders).

 $[\]frac{127}{128}$ Id.

 $^{^{128}}_{129}$ Id.

 $^{^{129}}$ *Id.*

¹³⁰ See id.

causing cancer risk, chloroprene can increase the risk of numerous other adverse effects to the nervous, gastrointestinal, hematological, and immune systems.¹³¹ As localized data confirms, the prevalence of health effects from chloroprene is associated with proximity to the Denka plant, with higher levels of illness closer to the plant.¹³² Ethylene oxide is also a potent carcinogen causing dangerous additional health threats.¹³³ EPA attributes 12% (187 per million people) of the cancer risk to ethylene oxide emissions.¹³⁴ Third, the potential for human or environmental exposure is high. It is inevitable that residents in St. John will breathe the air around them. Members of CCSJ live near the sources emitting toxic air pollution and regularly breathe air polluted by chloroprene and ethylene oxide emissions.

EPA must use its emergency powers to abate both chloroprene and ethylene oxide emissions because these emissions present an imminent and substantial endangerment to public health, welfare, and the environment.

III. EPA Must Use The Full Extent Of Its Authority, Including Its Emergency Power, To Take All Actions Necessary To End The Endangerment Presented By Toxic Air Emissions.

Petitioners urge EPA to take all actions necessary to abate the endangerment presented by toxic air emissions. At minimum, Petitioners request that EPA:

1. Immediately inspect, investigate, and enforce any relief necessary to end and remedy potential violations from sources emitting chloroprene and ethylene oxide.

EPA must inspect and investigate to assure that all appropriate enforcement action is taken to compel Denka to immediately reduce chloroprene emissions as needed to ensure compliance with the AOC. The AOC requires Denka to take the following actions, among others, by specific deadlines: reduce chloroprene emissions from different emission points by specific percentages, install certain technologies at different emission points, conduct performance tests, conduct air quality monitoring, and submit monthly and semi-annual progress reports to LDEQ.¹³⁵

EPA must immediately implement the best available form of fenceline monitoring rather than continue the controversial method created that only monitors for pollution spikes. *See* 42 U.S.C. §§ 7414, 7603. CCSJ calls on EPA to commit to continue ambient monitoring and to add monitoring at Denka's fenceline, applying EPA's authority under Clean Air Act section 103

¹³¹ 2010 IRIS Summary 2010, *supra* note 8, at 5.

¹³² Ruhan Nagra et al., "Waiting to Die": Toxic Emissions and Disease Near the Denka Performance Elastomer Neoprene Facility in Louisiana's Cancer Alley, 14 ENVIRONMENTAL JUSTICE, Feb. 2021, at 14, 22 (attached).

¹³³ EPA, IRIS, Evaluation of the Inhalation Carcinogenicity of

Ethylene Oxide (Dec. 2016), <u>https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=1025</u>. ¹³⁴ 2014 NATA, *supra* note 1.

¹³⁵ LDEQ, Administrative Order on Consent 3-9 (Jan. 6, 2017),

https://www.deq.louisiana.gov/assets/docs/Denka/DENKA_AdministrativeOrderOnConsentAOCJan2017 .pdf.

and 114 and EPA's emergency power. 42 U.S.C. §§ 7403, 7414, 7603. CCSJ also calls on EPA to require Denka to permanently perform fenceline monitoring using the best available fenceline method, approved through EPA's usual emission test method promulgation or approval process, for chloroprene. EPA must require this by strengthening the Neoprene Production regulations¹³⁶ under Clean Air Act section 112 to include fenceline monitoring and assure a corrective action level for chloroprene pursuant to these regulations that assures compliance and protects public health.

EPA must meet with CCSJ to discuss: the status of compliance with the AOC; reductions, if any, in Denka's chloroprene emissions; and its fenceline monitoring methods.

EPA must do the same for CCSJ regarding the nearby sources that emit ethylene oxide, including Union Carbide and Evonik Materials.

2. Reaffirm that the IRIS value reflects the best available science.

Although Denka has withdrawn its recent request for correction, EPA's Office of Research and Development and IRIS program should deny Denka's request for reconsideration of EPA's 2010 Toxicological Review of Chloroprene. EPA should not entertain any more unfounded attacks on the science, and instead should reaffirm the IRIS value once and for all. EPA should make clear that it will continue to use and apply the 2010 chloroprene risk value in regulatory and enforcement processes and take immediate action to protect the community members exposed to Denka's chloroprene emissions.

In addition, EPA has received comments from CCSJ and other groups urging the agency to deny the pending petition for correction of the 2014 NATA.¹³⁷ EPA should promptly deny that petition as well, which attacks the 2016 IRIS value for ethylene oxide, and reaffirm that value reflects the best available science.

3. Perform a rulemaking to (a) strengthen the emission standards covering emitters of chloroprene and other toxic chemicals in the community, and (b) implement permanent and effective fenceline monitoring for sources of both chloroprene and ethylene oxide.

EPA is long overdue in fulfilling core statutory duties to review and strengthen the national emission standards that apply to the sources emitting toxic air pollutants into St. John.

Section 112(d)(6) of the Clean Air Act requires EPA to "review, and revise as necessary (taking into account developments in practices, processes, and control technologies), emission standards promulgated under [§ 112] no less often than every 8 years." 42 U.S.C. § 7412(d)(6). More than eight years (nearly ten) have passed since EPA promulgated Clean Air Act § 112

¹³⁶ NESHAP for Group I Polymers & Resins, 40 C.F.R. Part 63 Subpart U.

¹³⁷ Louisiana Environmental Action Network et al., Comment Letter on National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing Residual Risk and Technology Review, Proposed Rule, 3-4 (Mar. 19, 2020), https://www.regulations.gov/comment/EPA-HQ-OAR-2018-0746-0154.

regulations for Hazardous Air Pollutant Emissions from Group I Polymers and Resins, which includes Neoprene Production.¹³⁸ In its failure to review and revise, as necessary, 40 C.F.R. Part 63 Subpart U, EPA violated and is in ongoing violation of the Act as of its final action deadline of April 21, 2019. Accordingly, EPA has failed to perform a nondiscretionary duty within the meaning of Clean Air Act § 304. 42 U.S.C. § 7604(a)(2).

EPA has also failed to conduct a timely residual risk review as required by § 112(f)(2). The promulgation of standards under § 112(d) in 2011 triggered a non-discretionary duty to complete a § 112(f) health and environmental residual risk review and rulemaking within eight years, *i.e.*, by April 21, 2019. EPA must perform an up-to-date health risk assessment under § 112(f)(2) for the Neoprene Production source category that evaluates cancer and other health risks. Based on the 2010 IRIS value and other health data EPA has gathered on chloroprene since 2011, EPA's health risk assessment under § 112(f)(2) should lead to a finding of unacceptable cancer risk and other health threats.

EPA must ensure that Denka reduces its chloroprene emissions permanently by promulgating a rule setting a chloroprene emission standard that is health-protective—that is, the standard must remove all unacceptable health threats from toxic air pollution and must assure that chloroprene ambient concentration levels no longer exceed the 2010 IRIS value. This would require EPA to set pollution limits that would prevent chloroprene emissions from reaching those levels, and that would "assure an ample margin of safety to protect public health" in St. John. $\S 112(f)(2)(A)$.

As part of the rulemaking on chloroprene, EPA must identify the best available form of fenceline monitoring for chloroprene and explain why that form is the most effective form available based on the most current scientific and technological developments. Fenceline monitoring is essential to ensuring that ambient chloroprene levels do not exceed a dangerous level. CCSJ believes that the only method that EPA has used to monitor for chloroprene that has gone through EPA's emission test approval process is TO-15, which EPA has since updated to TO-15A.¹³⁹ EPA's Refinery Rule applies Method 325A-B, which EPA promulgated and approved by rule to require fenceline monitoring at petroleum refineries in 2015. CCSJ calls on EPA to consider and address whether this method could be used for chloroprene, and if it would be equally accurate and reliable as TO-15A.¹⁴⁰ As part of the Neoprene Production rulemaking, EPA must also remove the illegal affirmative defense to civil penalties for malfunctions.¹⁴¹ In *Sierra Club v. EPA*, the D.C. Circuit held that a startup, shutdown, and malfunction exemption to compliance with emissions standards violates the CAA's requirement that some section 112

https://www.epa.gov/sites/production/files/2019-12/documents/to-15a_vocs.pdf. ¹⁴⁰ See U.S. Envt'l Prot. Agency, *Method 325A-Volatile Organic Compounds from Fugitive and Area Sources* (Sept. 29, 2015), https://www.epa.gov/sites/production/files/2016-07/documents/m-325a.pdf; See U.S. Envt'l Prot. Agency, *Method 325B-Volatile Organic Compounds from Fugitive and Area Sources* (Sept. 29, 2015), https://www.epa.gov/sites/production/files/2016-07/documents/m-325b.pdf. ¹⁴¹ 40 C.F.R. § 63.480(j)(4).

 ¹³⁸ See 40 C.F.R. §§ 63.480-63.507; Final Rule, 76 Fed. Reg. 22,566 (Apr. 21, 2011).
 ¹³⁹ See U.S. Envt'l Prot. Agency, *Method TO-15A* (Sept. 2019),

standard apply continuously, and in 2014, the court held that an affirmative defense to civil penalties is also illegal.¹⁴²

Regarding ethylene oxide emissions, EPA must reconsider and strengthen the recently amended Miscellaneous Organic Chemical Manufacturing National Emission Standards for Hazardous Air Pollutants (NESHAP), known as MON.¹⁴³ The MON Rule did not reduce hazardous air pollutants, including ethylene oxide, sufficiently to assure health protection for affected communities. CCSJ sought a public hearing on this proposed rule in Louisiana, which EPA denied.¹⁴⁴ CCSJ is aware that Louisiana Environmental Action Network ("LEAN"), RISE St. James, and other Louisiana, state, and national groups have petitioned EPA for reconsideration of this rule, seeking to strengthen it and require fenceline monitoring.¹⁴⁵ CCSJ believes that action is important to reduce ethylene oxide and other toxic air emissions from sources covered by that rule.

EPA also must complete overdue health risk and rule revisions for the Synthetic Organic Chemical Manufacturing, or HON, standards and promptly implement new standards that fully satisfy 7412(d) and 7412(f)(2).¹⁴⁶

4. Exercise permitting oversight and authority for the sources emitting toxic air pollution.

EPA must exercise its full oversight, suspension, and prohibition authorities regarding any current or future air permits, particularly permits concerning chloroprene and ethylene oxide emitters Denka, Union Carbide, and Evonik Materials. *See, e.g.*, 42 U.S.C. § 7661a. Currently operating permits for Denka include, at a minimum, ICIS-AIR permit LA0000002209500063 and LDEQ Pontchartrain Work Air Permits 3000-V5, 2449-V8, and 206-V3. CCSJ asks EPA to review these permits and strengthen them to assure they include all applicable clean air requirements, including the AOC, and to require monitoring and reporting to assure compliance.

5. Initiate a Title VI investigation on (a) LDEQ's permitting of the chloroprene- and ethylene oxide-emitting sources and (b) implementation of the Administrative Order on Consent.

CCSJ has long failed to receive the basic attention and action from LDEQ that every community deserves and LDEQ's failures rise to the level of a civil rights violation under Title VI of the Civil Rights Act, which EPA must investigate and address.

¹⁴² Sierra Club v. EPA, 551 F.3d 1019, 1028 (D.C. Cir. 2008); NRDC v. EPA, 749 F.3d 1055, 1062-63 (D.C. Cir. 2014).

¹⁴³ See 40 C.F.R. §§ 63.100-63.107; Final Rule, 85 Fed. Reg. 49,084 (Aug. 12, 2020).

¹⁴⁴ Letter from CCSJ *et al.* (Jan. 9, 2020), <u>https://earthjustice.org/sites/default/files/files/01.09.19%20-%20MON%20LA%20Public%20Hearing%20Request.pdf</u>.

¹⁴⁵ RISE St. James et al., Petition for Reconsideration of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Miscellaneous Organic Chemical Manufacturing (MON) Risk and Technology Review; Final Rule, 85 Fed. Reg. 49,084 (Aug. 12, 2020), Docket No. EPA-HQ-OAR-2018-0746 (Oct. 13, 2020), https://earthjustice.org/documents/legal-document/petition-for-reconsideration-mon-rule.

¹⁴⁶ See, e.g., Environ. Integrity Project et al. v. Wheeler (D.D.C. 2020) (case 1:20-cv-03733).

Title VI, codified as Section 601 of 42 U.S.C. § 2000d, states:

No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

Title VI prohibits recipients of EPA financial assistance from carrying out activities that intentionally discriminate or create a disparate impact on protected groups, including communities of color.¹⁴⁷ EPA considers the following framework to establish a prima facie disparate impact case: (1) whether the alleged discriminatory act has an adverse impact, (2) whether the adverse impact is suffered disparately, and (3) whether the disparate impact is caused by the recipient of federal funding. Additionally, EPA will consider if there is a substantial legal justification for the discriminatory action and a less discriminatory alternative.¹⁴⁸ EPA recognizes Title VI violations even during circumstances where emissions comply with permitting requirements of the agency in question if there is an adverse health impact on protected groups.¹⁴⁹

The emergency health situation in St. John warrants a Title VI investigation against LDEQ. LDEQ is subject to Title VI compliance because it consistently receives federal funding from EPA. For example, on October 8, 2020, EPA announced that it awarded LDEQ \$224,931 to assess health risks associated with chloroprene exposure created by Denka.¹⁵⁰ Although LDEQ received federal funds to further assess the harmful health impacts affecting residents of St. John, the agency has continued to permit Denka and nearby facilities to release dangerous levels of chloroprene and ethylene oxide emissions. CCSJ is also concerned that LDEQ used these funds in a way that did not serve the community and was inconsistent with LDEQ's representations to EPA in its request for the federal funds.¹⁵¹

Additionally, LDEQ has failed to take affirmative steps to enforce the terms of the AOC. As explained above, Denka's reduction of its chloroprene emissions over the last several years is insufficient; Denka's emissions remain remarkably high, causing ambient air levels to be

¹⁴⁷ U.S. Envt'l Prot. Agency, *Dear Colleague Letter* (Jan. 18, 2017), <u>https://www.epa.gov/sites/production/files/2020-02/documents/toolkit_ecrco_chapter_1-letter-faqs_2017.01.18.pdf</u> ("Dear Colleague Letter").

¹⁴⁸ Elston v. Talladega County Bd. Of Educ., 997 F.2d 1394, 1407, 1413 (11th Cir. 1993); Larry P. v. Riles, 793 F.2d 969, 982 (9th Cir. 1984).

¹⁴⁹ U.S. Envt'l Prot. Agency, *Dear Colleague Letter* (Jan. 18, 2017), <u>https://www.epa.gov/sites/production/files/2020-02/documents/toolkit_ecrco_chapter_1-letter-</u> fags 2017.01.18.pdf ("Dear Colleague Letter").

¹⁵⁰ U.S. Envt'l Prot. Agency, *EPA Awards Louisiana over \$311,000 to Assess Air Pollutants in St. John Parish* (Oct. 8, 2020), <u>https://www.epa.gov/newsreleases/epa-awards-louisiana-over-311000-assess-air-pollutants-st-john-parish</u>.

¹⁵¹ Letter from CCSJ to David Gray, Acting Regional Administrator U.S. Envt'l Prot. Agency, Region 6 (Feb. 28, 2021) (attached).

astronomical.¹⁵² As of September 2020, the ambient chloroprene concentration remained as high as 16.0 μ g/m³ in St. John¹⁵³ – 8,000 times the ambient concentration risk value of 0.002 μ g/m³, the level set by EPA scientists in 2010 and recognized as the goal for community health protection, and 80 times the level of 0.2 μ g/m³.¹⁵⁴ LDEQ's allowance of Denka to continue to operate and its failure to sufficiently respond to the harms caused by Denka are discriminatory conduct prohibited by Title VI.

LDEQ's conduct is discriminatory because the harms caused by chloroprene and ethylene oxide emissions predominately affect the Black community in St. John. By permitting Denka to operate, LDEQ is disproportionately subjecting Black residents to air pollution. Residents of census tract 708 in St. John face a cancer risk as high as 1,505-in-1 million—the highest cancer risk in the nation from air pollution. And the cumulative exposure to chloroprene has led to dire health risks: cancer, nervous system and heart damage, gastrointestinal problems, hematological problems, and immune system dysfunction.¹⁵⁵ This clear disparate impact warrants a Title VI investigation against LDEQ.

6. Investigate other action to protect public health locally.

EPA should use its emergency powers to support local governments in protecting public health, starting with the health of children who go to school in St. John. Specifically, EPA should further investigate the impact of toxic air emissions on school children in St. John; place air monitors at schools, *see* 42 U.S.C. § 7403(c); and give local governments a grant to fund the relocation of schools in close proximity to Denka. EPA should also explore any possible ways it can use its authority to support the community's concerns about children's health at school and to evaluate other ways to strengthen local health protection.

IV. Conclusion and Contact Information

For the reasons discussed in this petition, Petitioners request that EPA take each action necessary to abate the imminent and substantial endangerment to St. John residents from toxic air pollution, including Denka's chloroprene emissions. Petitioners also respectfully request to meet with EPA to discuss the contents of the petition for emergency action and petition for rulemaking.

10/documents/r6 summary through september 26 2020.pdf (attached).

¹⁵² U.S. Envt'l Prot. Agency, *Continuous Air Monitoring Summary Results for Chloroprene March 10*, 2020 – *February 3*, 2021, <u>https://www.epa.gov/sites/production/files/2021-02/documents/continuous-monitoring-summary-march-10-2020-through february-03-2021.pdf</u>.

¹⁵³ U.S. Envt'l Prot. Agency, DENKA Air Monitoring Summary Sheet May 25, 2016 - September 26, 2020, <u>https://www.epa.gov/sites/production/files/2020-</u>

¹⁵⁴ See 2016 EPA Chloroprene Memo, *supra* note 4 (attached). EPA's 100-in-1 million cancer risk benchmark, set in 1989, is also far too high and should be reduced to recognize that lower levels of cancer risk from toxic air are also unacceptable.

¹⁵⁵ 2010 IRIS Summary, *supra* note 8, at 5; Ruhan Nagra et al., "*Waiting to Die*" *Toxic Emissions and Disease Near the Denka Performance Elastomer Neoprene Facility in Louisiana's Cancer Alley*, 14 ENVIRONMENTAL JUSTICE, Feb. 2021, at 14, 22 (attached).

For additional information or to arrange a meeting, please reach out to Emma Cheuse (attorney), Deena Tumeh,¹⁵⁶ and Michelle Mabson (staff scientist)¹⁵⁷ at Earthjustice (echeuse@earthjustice.org, dtumeh@earthjustice.org, mmabson@earthjustice.org or (202) 667-4500 ext. 5220), attorneys Maryum Jordan and Dorian Spence at the Lawyers' Committee for Civil Rights Under Law (mjordan@lawyerscommittee.org, dspence@lawyerscommittee.org), and Robert Taylor and Mary Hampton at CCSJ (citizensofstjohnparish@gmail.com).

¹⁵⁶ Admitted only in California. Supervision by Emma Cheuse, a member of the D.C. Bar.
¹⁵⁷ Earthjustice's staff scientist contributed only to the scientific and factual analysis in this petition.

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cc:

Dr. Cecilia Martinez, Senior Director for Environmental Justice White House Council on Environmental Quality

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Lawrence Starfield, Acting Assistant Administrator EPA Office of Enforcement and Compliance Assurance

James Leathers Frances Verhalen EPA Region 6 Air Toxics Program

EPA, Office of Environmental Justice

EPA, Office of Air Quality Planning and Standards (OAQPS)

Enc: List of Attachments submitted via U.S. Mail to the Office of Administrator and via email to OAQPS

Attachments to CCSJ Petition to EPA (Filed May 6, 2021)

(listed in order of appearance in petition*)

*Additional sources cited are in EPA's possession or available by request to Earthjustice.

- U.S. Envt'l Prot. Agency, DENKA Air Monitoring Summary Sheet May 25, 2016 -September 26, 2020, <u>https://www.epa.gov/sites/production/files/2020-</u> 10/documents/r6 summary through september 26 2020.pdf.
- 2. See U.S. Envt'l Prot. Agency, Action Plan 5 (June 2016), <u>https://www.epa.gov/sites/production/files/2016-06/documents/epa-laplace-action-plan.pdf</u>.
- Memo from Kelly Rimer, Leader, Air Toxics Assessment Group, Health & Envt'l Impacts Div., OAQPS, to Frances Verhalen, P.E., Chief, Air Monitoring/Grants Section, EPA Region 6, Re: Preliminary Risk-Based Concentration Value for Chloroprene in Ambient Air (May 5, 2016), <u>https://www.epa.gov/sites/production/files/2016-06/documents/memo-prelim-risk-based-concentrations050516.pdf</u>.
- 4. Ruhan Nagra et al., "Waiting to Die": Toxic Emissions and Disease Near the Denka Performance Elastomer Neoprene Facility in Louisiana's Cancer Alley, 14 ENVIRONMENTAL JUSTICE, Feb. 2021.
- 5. EJScreen Data Within 1 Mile Radius of Denka (Apr. 29, 2021).
- 6. Letter from EPA to Hugh P. Lambert (Apr. 28, 2021).
- 7. Wilma Subra and Louisiana Environmental Action Network, *Denka Performance Elastomer Former DuPont Pontchartrain Works* (Apr. 16, 2021).
- Hampton et al., Comment Letter on Notice of Public Comment Period on Technical Documents for External Peer Review and the Pool of Candidate Peer Reviewers for a Report on Physiologically Based Pharmacokinetic (PBPK) Modeling for Chloroprene and a Supplemental Analysis of Metabolite Clearance, 85 Fed. Reg. 44,885 (July 24, 2020) Docket: EPA-HQ-ORD-2020-0181-0001 (Aug. 24, 2020), https://downloads.regulations.gov/EPA-HQ-ORD-2020-0181-0016/attachment 1.pdf.
- Letter from Omavi Shukur and Monique Lin-Luse, NAACP Legal Defense and Educational Fund, Inc. to Assistant District Attorney of St. John the Baptist Parish, Orenthal Jasmine, Re: Harris v. St. John the Baptist School Board, C.A. No. 13,212-A3 (Mar. 8, 2021).
- 10. Adrienne Katner, D.Env., M.S., Independent Assessment of the Environmental Conditions of Public School Locations: St. John the Baptist Parish, Louisiana (Mar. 8, 2021).

- 11. "Cancer Risk," "Percentage of the population that includes individuals identified as racial minorities or people of color," "Percentage of the population that includes people living below 100% of the poverty level," maps presenting 2014 National Air Toxics Assessment cancer risk and 2010 census data for St. John the Baptist Parish, La., prepared by Robyn Winz, Litigation Paralegal, Earthjustice (May 2021).
- 12. Letter from Concerned Citizens of St. John to David Gray, Acting Regional Administrator U.S. Envt'l Prot. Agency, Region 6 (Feb. 28, 2021).