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November 30, 2023

Ms. Laurie Gharis
Chief Clerk, MC-105
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Via Electronic Filing

Re: Comments and Requests for Contested Case Hearing on Energy Transfer Petrochemical Holdings Petrochemical Facility in Nederland, Jefferson County; Proposed State Air Quality Permit 170854, Prevention of Significant Deterioration Air Quality Permit PSDTX1614, Hazardous Air Pollutant Major Source Permit HAP81, and Greenhouse Gas Air Quality Permit GHGPSDTX227

Dear Ms. Gharis:

Thank you for accepting these comments filed on behalf of the **Environmental Integrity Project, South End Charlton-Pollard Greater Historic Community Association, Westry Mouton Project, Golden Triangle Sierra Club Group, Sierra Club, Environment Texas, Texas Campaign for the Environment, Julieta Martinez and Shiela Meece.**

Energy Transfer Petrochemical Holdings LCC has applied to the Texas Commission on Environmental Quality for Air Quality Permit No. 170854, PSDTX1614, HAP81, and GHGPSDTX227, to authorize construction of the Energy Transfer Petrochemical Facility (the “Nederland Ethylene plant,” or “ethane cracking plant”) at 2300 North Twin City Highway, Nederland, Jefferson County, Texas 77627.

We oppose Energy Transfer’s Nederland Ethylene plant, and urge the TCEQ to deny the Application.

I. Background and Summary of the Project

Energy Transfer Petrochemical Holdings, LLC (Energy Transfer) is proposing to build a petrochemicals complex in Nederland, Jefferson County, Texas. The complex will include six pyrolysis furnaces (steam crackers) and one fluidized catalytic cracker along with boilers, flares, tanks and more. The facility will produce propylene, ethylene, and pyrolysis gasoline from several

feedstocks, including light liquid hydrocarbons (e.g., natural gasoline and light refinery naphtha) and natural gas liquids (e.g., ethane, propane, and butane). Energy Transfer claims that the fluidized catalytic cracker will also be able to use recycled plastic processed offsite as a feedstock but has not provided further information. The facility's production capacity has not been made public.

The main production steps include a steam cracking plant, which cracks gases and other light liquid hydrocarbons into polymer-grade ethylene and propylene, as well as pyrolysis gasoline. Another main step in the process includes a fluidized catalytic cracking plant which cracks light hydrocarbon liquids to form propylene and pyrolysis gasoline; and a metathesis plant that upgrades intermediate products into propylene. The fluidized catalytic cracker will also be capable of co-processing, in addition to traditional petroleum-based feedstocks, secondary materials such as recycled plastics.

If built, the plant would be allowed to release up to 5,102,515.67 tons per year of greenhouse gases (CO₂e), which is the same as the GHG emissions from the tailpipes of more than one million gasoline-powered cars, *each year*. In addition, the Plant would be allowed to emit 1,130 tons per year of nitrogen oxides, and more than 1,600 tons per year of volatile organic compounds. NO_x is a respiratory irritant, and is especially harmful for people with respiratory problems. VOC contains dangerous toxic gases like carcinogenic benzene. In addition, when combined with NO_x, it forms ground-level ozone – commonly called smog. If built, the plant would also be allowed to release up to 320 tons of fine particulate matter (PM_{2.5}), which is linked to premature mortality. Plus, it would allow up to 503 tons per year of dangerous sulfur dioxide, which acidifies soil and water and, worse, harms humans, animals and plants.

These pollutants would be added to an area already overburdened by industrial pollution. Roughly 25,000 people live within a mere three miles of the proposed facility, with 24 percent of these people considered low income, and 22 percent identify as people of color, according to U.S. EPA's EJScreen and U.S. census data.

According to Energy Transfer's own air quality analysis, nitrogen dioxide emissions from this proposed Ethane Cracker plant will impact areas within a roughly 17 miles radius from the proposed plant, and will impact them above the "significant impact" level. Commenters point to this fact not because we agree that the Applicant conducted their impacts analyses correctly, but rather to make the point that Energy Transfer's own air quality analyses (i.e., air dispersion modeling) demonstrate that the community surrounding the proposed Nederland plant will be subject to more air pollution.

II. The Application and Draft Permit Are Deficient

We have two main areas of concern about the Application and Draft Permit. First, the proposed facilities do not meet the technology-driven standards that are supposed to ensure that if

built, the plant will be as low-polluting as possible. These include Best Available Control Technology (BACT) and health-based Maximum Achievable Control Technology (MACT) requirements. When properly applied, these standards should result in strong, protective, and enforceable emission limits and other constraints on pollution. The second main area of concern involves ambient impacts the proposed project will have on local and regional air quality. The Application fails to adequately demonstrate that the Nederland ethane cracker plant would not impermissibly degrade air quality and cause other impermissible or unhealthy ambient air impacts.

The emission limitations and monitoring, which primarily include BACT determinations, proposed in the Draft Permit are deficient for the following emission sources:

- Pyrolysis Furnaces
- Boilers, Heaters
- KCOT Unit
- Flares (multipoint Ground Flare; Elevated Flare)
- Thermal Oxidizer
- Cooling Tower
- Fugitives
- Olefins Regeneration Vent
- Tanks
- Fugitives

We provide the following nonexhaustive specific examples of the Draft Permit's deficiencies that should be addressed and corrected if the Draft Permit is finalized.

The Pyrolysis Furnaces do not meet BACT. For example, the Draft Permit limits carbon monoxide emissions to 50 ppmvd corrected to 3% oxygen, equivalent to 0.038 lb/MMBtu, per Table 5-2 of ET's application. However, at least one other similar facility has a lower hourly CO emission limit: the steam cracking furnaces at the LACC Ethylene Plant in Westlake, Louisiana has limited maximum hourly emissions to 0.030 lb/MMBtu through a combination of burner design and engineering practices, as detailed in Louisiana permit PSD-LA-800(M1) issued on February 25, 2022.

As another example, the Preliminary Determination Summary describes BACT for greenhouse gas emissions from the pyrolysis furnaces as limiting emissions through good combustion practices, use of an automated air/fuel controller, and imposing a maximum stack temperature of 340° F. While these controls will improve the thermal efficiency of the furnaces, there are additional available controls that improve thermal efficiency and that should be considered when determining BACT. The FG LA Complex in St. James, Louisiana, for example, incorporated multiple energy efficient design elements in the selection of BACT for its cracking furnaces: preheating the ethane and steam feed mixture, use of an economizer to preheat feedwater, heat recovery, condensate recovery, and use of an additional boiler feed water coil (see permit

PSD-LA-812 issued on 1/6/2020). Other Texas ethylene plant permits contain thermal efficiency minimums, such as Dow Freeport's Permit GHGPSDTX38M1.

The emission reductions resulting from the selected controls together with control of the carbon content of the fuel gas and recovering flare gas would result in quantifiable efficiency gains that can be represented by the amount of greenhouse gases emitted per unit of production by the pyrolysis furnaces. The Draft Permit should include a minimum efficiency, like Dow Freeport, GHGPSDTX38M1 (1.1 lb CO_{2e} / lb ethylene produced).

In yet another example, to determine the maximum allowable emission rate for Particulate Matter (PM) and Volatile Organic Compound (VOC) emissions, the Application relies on U.S. EPA's *AP-42: Compilation of Air Emission Factors*. The specific emission factors for PM and VOCs used in the calculations, from Table 1.4-2: Emission Factors for Criteria Pollutants and Greenhouse Gases From Natural Gas Combustion, were published in 1998. Since that time, operational data, other permits, and additional more reliable information demonstrates that much lower emission rates can be achieved. For example, at Exxon's Baytown Olefins Plant, stack tests for four of the facilities eight steam cracking furnaces showed an emission rate of 0.53 lb/hr for PM and <0.02 lb/hr for VOC.¹ This is much lower than the proposed hourly emission limits proposed for the similarly sized steam cracking units at the Nederland Petrochemical Complex, 3.67 lb/hr and 2.64 lb/hr respectively. TCEQ should require that ET meet emission limits demonstrated as reasonable by the operation of similar units at other petrochemical complexes.

Other concerns include that Draft Permit proposes to control carbon monoxide (CO) and particulate matter (PM) emissions during decoking, included in Maintenance Startup and Shutdown (MSS) activities for the furnaces, by routing effluent generated during decoking operations to the furnace firebox after treatment in a cyclone.² However, the draft permit does not include limits on these emissions as it does for NO_x emissions which are also affected by decoking operations.

The Draft Permit limits PM emissions during decoking only by limiting opacity to 5% (determined using Test Method 9 or 22 during each decoking event).³ Energy Transfer stated in correspondence to TCEQ that it can meet short-term limits associated with regular operations during decoking events.⁴ However, if ET can meet or exceed the short-term limit during decoking,

¹ Permit Number 102982, Permit Alteration: Source Analysis & Technical Review, April 29, 2019

² Draft Permit, Special Condition 6E

³ Draft Permit, Special Condition 15

⁴ Jesse Lovegren Memo to Cara Hill RE: Project 349610, Response to TCEQ Information Request, Proposed Permits 170854, PSDTX1614, HAP81, and GHGPSDTX227, Energy Transfer Petrochemical Holdings LLC (CN606073617, RN111596409), February 24, 2023, p 4.

this BACT should be required in the permit. At least one cracking facility that also routes decoking effluent to the furnace firebox, Shell Appalachia Petrochemical Complex, has established a decoking specific PM emission limit during decoking that is lower than the short-term limit during regular operations: PM10 and PM2.5 emissions are limited to 1.86 lb/hr during decoking and 3.10 lb/hr during regular operations.⁵

Additional decoking controls in use at other facilities include limiting the total hours of decoking per year to only those necessary to complete decoking operations and limiting the number of furnaces that may be in decoking mode at one time. Several recent permits at petrochemical facilities have established limits on the hours and number of units allowed in decoking mode. For example, Ineos Chocolate Bayou Chemical Plant Permit 97769 allows 20 events per rolling 12-month period. BASF Total Olefins Complex and the Bayport Polymers Port Arthur Side Ethane Cracker also have limits on maximum hours of decoking.

The Boilers and Heaters do not meet BACT. For example, the Preliminary Determination Summary establishes BACT for CO emissions from the boilers as 50 ppmvd (3% O₂ basis) on a 1-hour average.⁶ However Special Condition 8A, allows CO emissions from the boilers at a rate of 100 ppmvd (3% O₂ basis) on a 1-hour average. TCEQ should correct the permit to reflect BACT as established in the Preliminary Determination Summary.⁷

The KBR Catalytic Olefins Technology (KCOT) Unit does not meet BACT. The “KCOT” cracking unit uses a fluidized catalytic cracking (FCC) reactor to produce propylene and ethylene. In its BACT analysis, ET acknowledges that this application differs from a traditional FCC unit in that it does not use “heavy” feedstocks such as vacuum gas oil but claims that there are no other similar installations of FCC units at petrochemical complexes. For this reason, ET’s BACT analysis relies on comparisons to controls achieved at refinery FCC units. However, there are at least two other petrochemical facilities using KCOT units: Lotte Chemical Titan petrochemical facility in Pasir Gudang, Malaysia and Lihuayi Lijin Refining & Chemical Co facility in Dongying, China.⁸ TCEQ and ET have not demonstrated that they considered the

⁵ Pennsylvania Permit 04-00740C, p 86.

⁶ Preliminary Determination Summary, pdf p 3

⁷ Two additional facilities with similarly sized boilers also limit CO emissions to 50 ppmvd (3% O₂ basis) on a 1-hour average: Chevron Phillips Orange (see Texas Permit 155952, PSDTX1556, GHGPSDTX192, Special Condition 11) and C3 Petrochemicals Propane Dehydrogenation Plant (see Texas Permit 107939, PSDTX1342, N176, Special Condition 39).

⁸ MRC (December 27, 2017) Lotte Chemical resumed operations at cracking reactor, <https://www.mrchub.com/news/334554-lotte-chemical-resumed-operations-at-cracking-reactor>; KBR (September 25, 2018) KBR Awarded License and Catalyst Contracts for K-COT[®] and SCORE[®] Technologies in China <https://www.kbr.com/en/insights-news/press-release/kbr-awarded-license-and-catalyst-contracts-k-cota-and-scorea>

emissions achievable and technologies in use at these existing units in determining BACT for the KCOT.

For CO and SO₂ emissions from the KCOT unit, the draft permit either includes limits that are higher than what has been achieved at refinery FCC units, or has failed to propose limits at all.

In another example of deficient BACT, the Preliminary Determination Summary describes BACT for controlling greenhouse gas emissions from the KCOT unit as limiting emissions through good combustion practices and operating the unit with high conversion rate to minimize coke formation. However, TCEQ and ET have not demonstrated that they considered any additional measures to limit greenhouse gas emissions from the FCC unit. U.S. EPA has identified additional technologies available for reducing greenhouse gases at catalytic cracking units, including waste heat recovery, high-efficiency regenerators, and managing fuel gas to minimize emissions.⁹ TCEQ in its Preliminary Determination Summary, and ET, in its application did not demonstrate that it had considered any of these controls.

As with the pyrolysis furnaces, the emission reductions resulting from the selected controls together with control of the carbon content of the fuel gas (discussed below), would result in a quantifiable efficiency that could be represented by unit emissions of greenhouse gases emitted per unit of production by the KCOT unit.

In addition to a failed BACT analysis, the KCOT unit must meet the more stringent maximum achievable (“MACT”) standard for hydrogen cyanide (HCN), yet the Draft Permit does not satisfy the case-by-case MACT requirements.

Flares do not meet BACT. Regarding emissions from flares, Lotte Chemical, which operates an ethylene cracker in Westlake, Louisiana, submitted a permit modification on November 18, 2022, where the elimination of elevated flares in favor of ground flares is employed as BACT ([PSD-LA-800 modification](#)). This is because elevated flares, generally used to combust heavy hydrocarbons, rely on an external momentum force like steam or forced air to reach the minimum velocity at the flare tip for combustion. This can result in reduced flare efficiency when the waste gas concentration is close to the lower flare limit, as steam or forced air dilute the waste gas stream and can lead to concentrations of gas released below the lower flare limit. Reliance on an external momentum force also requires the use of natural gas or other fuel to generate steam and/or propel forced air, increasing fuel usage and resulting in greenhouse gas emissions. These emissions can be reduced by relying solely on ground flares, which rarely require external momentum force.

⁹ U.S. EPA, Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from the Petroleum Refining Industry, October 2010 at 28.

The Preliminary Determination Summary describes BACT for controlling greenhouse gas emissions from the flare as limiting emissions through good process design, good flare design, best operational practices, and routing appropriate vents to fuel.

Recovering flare gas by routing vents to fuel can provide significant emission reductions. The draft permit should require minimum thresholds for flare gas recovery or maximum limits on gas routed to the flare to ensure that this control is used to the maximum extent that can be reasonably achieved. At least one similar facility, Chevron Phillips Chemical Port Arthur, operates with established limits on quantities of gases that can be routed to the flare (see Permit 21101 and PSDTX1248 issued on March 8, 2021, Special Condition 11).

The Draft Permit includes requirements for monitoring elevated flare emissions that only determine the quantity and composition of gases delivered to the flare. Special condition 12 requires continuous monitoring for waste gas volumetric flow, waste gas composition or Btu content, presence of pilot flame, and monitoring of visible emissions (by Method 9 or 22, per special condition 15). However, measurement of these parameters does not verify that the flare continuously meets the required destruction efficiency established in the Preliminary Determination Summary (99% for hydrocarbon compounds containing three carbon atoms or less and 98% for all other compounds) or that visible emission limits (periods not to exceed a total of five minutes during any two consecutive hours) are continuously met.

While monitoring of gas flow and composition will provide information on the gases routed to the flare and visual monitoring of the flare outlet will provide information on opacity, these measurements do not provide assurance of the destruction efficiency achieved by the control. Existing and available technologies can monitor gas composition at the flare outlet, providing actual measurement of the destruction efficiency of the control devices. Video Imaging Spectro-Radiometry (VISR) and Passive or Active Fourier Transform Infrared Spectroscopy (FTIR) are two technologies that use remote sensing techniques to monitor gases exiting a flare. Zeeco and Providence Photonics manufacture VISR monitors, and a proposed test method has been developed by Providence Photonics to allow for use of this technology for continuous monitoring of flare emissions.¹⁰ Passive FTIR monitors are manufactured by Clean Air Engineering, which has developed a proposed test method for using this technology.¹¹

¹⁰ Providence Photonics, LLC. Comment to Docket ID No. EPA-HQ-OAR-2017-0357: Attachment 18 - Exhibit 11 - Draft VISR Method, December 19, 2019 (<https://www.regulations.gov/comment/EPA-HQ-OAR-2017-0357-0039>)

¹¹ Clean Air Engineering, PFTIR Flare Testing: Technology and Method Summary, October 26, 2020 (<https://www.cleanair.com/resource/pftir-flare-testing-guide-technology-and-method-summary/>)

To ensure that there are no visible emissions, TCEQ should require use of continuous video which allows for monitoring during all times the plant is in operation, eliminating gaps in data collection. This method is already allowed as an alternative to Method 22 in the NESHAP for Ethylene production facilities.¹²

Leak Detection and Repair & Control of Fugitive Emissions do not meet BACT. For example, the Draft Permit requires the control of equipment leak fugitives through use of the 28VHP and 28CNTQ leak detection and repair (LDAR) programs. These programs specify monitoring frequencies at piping and piping components and include the monitoring concentrations that define a leak. At least one similar facility, Shell Chemical Appalachia Petrochemical Complex, uses a LDAR program with stricter leak definitions as detailed below:

Leak Definition by Component	TCEQ 28VHP/28CNTQ requirement¹³	Shell Chemical Appalachia Petrochemical Complex
Pumps and compressors	2,000 ppmv	100 ppmv
Flanges, valves in gas/vapor and light liquid service	500 ppmv	100 ppmv
Atmospheric pressure relief valves without rupture disk	500 ppmv	200 ppmv
All other components	500 ppmv	500 ppmv

The Application and Draft Permit fail to consider cleaner fuels. The Draft Permit limits the sulfur content of the plant fuel gas to 2 grains of sulfur per 100 dscf.¹⁴ Similar facilities have achieved lower sulfur content on a 12-month rolling basis: Dow Freeport has limited the sulfur content in its fuel to 0.2 grains of sulfur per 100 dscf (see permit GHGPSDTX38M1 issued on April 5, 2023, Special Condition 7) and Gulf Coast Growth Ventures Gregory has limited its fuel sulfur content to 0.5 grains of sulfur per 100 dscf (see permit 146425, PSDTX1518, April 16, 2023, Special Condition 20C). Lower fuel sulfur content will result in lower sulfur emissions.

In addition, the use of low carbon fuels is specified as BACT for limiting greenhouse gas emissions for the steam boilers, OCT Charge Heater, KCOT Process Heater, Regeneration Gas Heater, and GRU Charge Heater. However, the Draft Permit does not include a maximum carbon

¹² 85 Fed. Reg. 40386, 40401 (July 6, 2020)

¹³ Per Air Permits Division Texas Commission on Environmental Quality, Air Permit Technical Guidance for Chemical Sources Fugitive Guidance: APDG 6422, June 2018.

¹⁴ Draft Permit, Special Condition 14B

content for the fuel to be used at the plant. Instead, the greenhouse gas emissions are based on the default emission factors for CO₂, CH₄, and NO₂ for fuel gas provided in 40 CFR Pt. 98 Tables C-1 and C-2. Establishing the expected carbon content can provide the basis for a limit on carbon dioxide equivalents (CO₂e) to be emitted during plant operations. At least one similar facility, Dow Chemical Freeport, has established a maximum carbon content for the fuel gas (see permit GHGPSDTX38M1 issued on 4/5/2023, Special Condition 2A).

Some ethylene cracking facilities are using tail gas as plant fuel gas, including Bayport Polymers Port Arthur Side Ethane Cracker (see permit 122353 and PSDTX1426, January 14, 2022, Special Condition 6) and Gulf Coast Growth Ventures Gregory (see permit 146425, PSDTX1518, April 16, 2023, Special Condition 20).

The air quality impacts from the proposed Nederland Ethane Cracker complex were insufficiently assessed. As part of the Air Quality Analysis (AQA), modeling analyses were conducted to determine if emissions of criteria air pollutants would result in exceedances of ambient air standards, including National Ambient Air Quality Standards (NAAQS), PSD Increments, and state health screening levels.

The modeled concentration reported in the AQA for the 1-hour NO₂ NAAQS is within 5 µg/m³ of the NAAQS (183 µg/m³ versus 188 µg/m³). Given how close the modeled concentration is to exceeding the 1-hour NO₂ NAAQS, we are concerned with how NO_x emissions from ground flare maintenance, startup, and shutdown (MSS) were treated in the AQA. In the draft Maximum Allowable Emission Rates Table (MAERT), the ground flare MSS hourly NO_x emission rate is given as 5,217.46 lb/hr. This makes it by far the largest source of NO_x in the proposed petrochemicals complex, being 20 times higher than the next largest source (elevated flare MSS emissions).

Despite being the single largest source of NO_x emissions, the ground flare MSS hourly NO_x emission rate was reduced by a factor of 52 in the 1-hour NO₂ NAAQS analysis in the AQA. The modeling contractor, Trinity Consultants, assumed that ground flare MSS NO_x emissions would only occur 168 hours per year despite there being no limit on hours of ground flare operation in the draft permit. Trinity Consultants then annualized the ground flare MSS NO_x emission rate by multiplying the hourly emission rate by 168 hours and then dividing by 8,760 hours (i.e., the total number of hours in a year). This results in a modeled hourly NO_x emission rate from ground flare MSS that is 52 times lower than the emission rate given in the MAERT.

Trinity Consultants justifies this by claiming that ground flare MSS emissions are subject to EPA's guidance on intermittent sources. However, given how high the ground flare MSS hourly NO_x emission rate is, this rationale and the EPA guidance does not support the Applicant's claim. Had the Applicant modeled anything remotely close to true worst-case emissions, flare MSS NO_x emissions violate the 1-hour NO₂ NAAQS.

Benzene emissions were not adequately considered. The Applicant analyzed two hazardous air pollutants (HAP) site-wide: benzene and pyrolysis gasoline. Benzene was modeled for both the highest one-hour concentration and the highest annual concentration, while pyrolysis gasoline was only modeled for the highest one-hour concentration. But, per TCEQ's MERA guidance document (APDG 5874), site-wide modeling is defined as "modeling (refined or screening) of emissions from all emission points and areas on a contiguous property or at a site" (pg. 12). Based on the site map included in the permit application (pg. 3-2), there are a number of storage tanks within the property boundary that are part of the Energy Transfer Nederland Terminal (RN100214626). Despite these tanks being within the property boundary and potentially containing products that would result in emissions of benzene, they are not included in either benzene analysis. This results in off-site benzene concentrations being underestimated.

The Application fails to prove that the plant would not significantly degrade air quality, violating the PSD Increments. According to the Application, ambient concentrations of particulate matter are so close to their respective not-to-exceed limits that they warrant closer scrutiny. For example, Energy Transfer predicts a concentration for the 24-hour PM_{2.5} PSD Increment to be within 0.35 µg/m³ of the standard (8.65 µg/m³ against the standard of 9 µg/m³). Similarly, the Applicant predicts a concentration for the annual PM₁₀ de minimis analysis to be within 0.025 µg/m³ of the standard (0.975 µg/m³ against a standard of 1 µg/m³). Similarly, ambient impacts from emissions of sulfur dioxide and nitrogen oxides are shown in the Application to be too close to the standard for comfort, and requires more scrutiny.

We are concerned that the Application has impermissibly and unreasonably assumed lower than expected PM, SO₂ and NO_x emissions, which results in erroneously low predicted impacts. If reasonable emission rates, based on the realistic expected operations of the plant, were used instead, then the Nederland Ethane Cracker plant could not be built as currently proposed.

Finally, **fence line monitoring should be added to the Draft Permit**, as a way to help ensure that levels of air pollution outside the plant meet health-based standards. Fenceline monitoring is required at refineries, and EPA has proposed a rule that will add the fence line monitoring requirement to ethylene plants and other chemical plants. In addition, many petrochemical plants have installed these systems as a result of EPA settlements. In any event, these monitoring systems are inexpensive and approved by EPA for use. Since implementation of fence line monitoring at refineries across the U.S. in 2018, concentrations of the monitored pollutant, benzene, have decreased by an average of 30 percent.

III. We Request a Contested Case Hearing

For the reasons stated in these Comments and Requests for Contested Case Hearing, the following parties each **request a contested case hearing** for State Air Quality Permit Number

170854, PSD Air Quality Permit Number PSDTX1614, and Hazardous Air Pollutant Major Source Permit HAP81, and the Applications by Energy Transfer Petrochemical Holdings, LLC. We reserve all rights in furtherance of the appeal of proposed GHG Permit GHGPSDTX227. Each of the following enumerated parties submit the following contested issues:

- a. Whether the Application and Draft Permit fail to meet the federal Clean Air Act's BACT requirements, including emission limits, operational constraints, pollution controls, and the monitoring needed to ensure compliance with same;
- b. Whether the Application and Draft Permit fail to meet the maximum achievable control technology (MACT) standards applicable to facilities at the proposed site, to limit emissions of hazardous air pollutants and air toxics;
- c. Whether the Draft Permit lacks adequate monitoring sufficient to ensure compliance with all emission limitations, including those limitations in the MAERT, Special Conditions, General Conditions, and Application representations;
- d. Whether the Draft Permit and Application's Air Quality Analysis was deficient, and the Draft Permit and Application fail to demonstrate that the Nederland Ethane Cracker plant would not impermissibly cause or contribute to unhealthy levels of air contaminants outside the fence line, including failing to demonstrate the emissions would not cause nuisance conditions, NAAQS exceedances, or PSD Increment exceedances.
- e. Whether the Draft Permit and Application demonstrate emissions would be protective of public health and welfare.

1. Julieta Martinez

Ms. Julieta Martinez's mailing address is 508 N. 17th Street, Nederland, TX 77627. She may be reached during the daytime via her undersigned counsel.

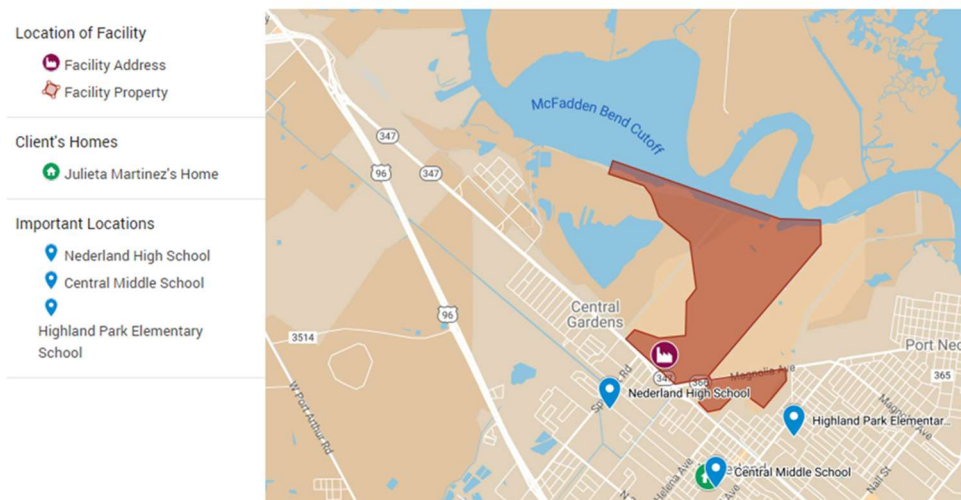
Ms. Martinez will be adversely affected by the proposed emissions from the Energy Transfer Nederland Ethane plant in a way not common to the general public because Ms. Martinez lives and works so close to the proposed facility, which will be a major source of multiple air pollutants known to affect human health and safety. Ms. Martinez is concerned that the plant will cause nuisance conditions, and also degrade her enjoyment of her views, and recreational and aesthetic interests on her property. Ms. Martinez's home is located at 508 N. 17th Street, Nederland, TX 77627 and is 0.61 miles from the proposed facility. Ms. Martinez frequently sees discoloration and smells chemicals in the air at and near her house from the existing industrial facilities in the area. Ms. Martinez frequently coughs and sneezes when she is outside of her home, such as when she is taking care of her yard or using her yard for family events. She is concerned the proposed facility will significantly worsen these problems because of the magnitude and nature of its proposed emissions. If the plant is built, then a strict and enforceable permit that requires the best anti-pollution technologies and monitoring would help address these concerns.

Further, Ms. Martinez works at Highland Park Middle School, at 200 S 6th St, Nederland, TX 77627. Highland Park Middle School is within 0.4 miles of the proposed facility. She is concerned that, because she works 5 days a week so close to the facility, she will not only be affected at her home but also at her place of work.

In addition to Ms. Martinez's concerns about how the facility's air emissions would affect herself and her property, Ms. Martinez is concerned about how air emissions would affect her two daughters, aged 19 and 17, who live with her. One of her daughters has asthma and is particularly sensitive to air pollutants. Ms. Martinez has noticed that she gets sick more frequently than others of her age. Both of Ms. Martinez's daughters attend Nederland High School, which is located less than 3,000 feet (or less than 0.6 miles) from the proposed facility. Ms. Martinez drops her daughters off at school most days. The daughters frequently walk home from school while Ms. Martinez is still at work.

Ms. Martinez and her daughters use the outdoor track and stadium at Central Middle School to walk, run, and otherwise recreate. Central Middle School is directly across the street from Ms. Martinez's home, at 200 N 17th St, Nederland, TX 77627.

The following map shows the location of the proposed facility, Ms. Martinez's home, Nederland High School, Central Middle School, and Highland Park Middle School. Ms. Martinez and her two daughters live, attend school, recreate, and work within 1 mile from the proposed facility which will emit numerous individual air pollutants at levels many times more than the major source threshold of 100 tons per year.



2. Shiela Meece

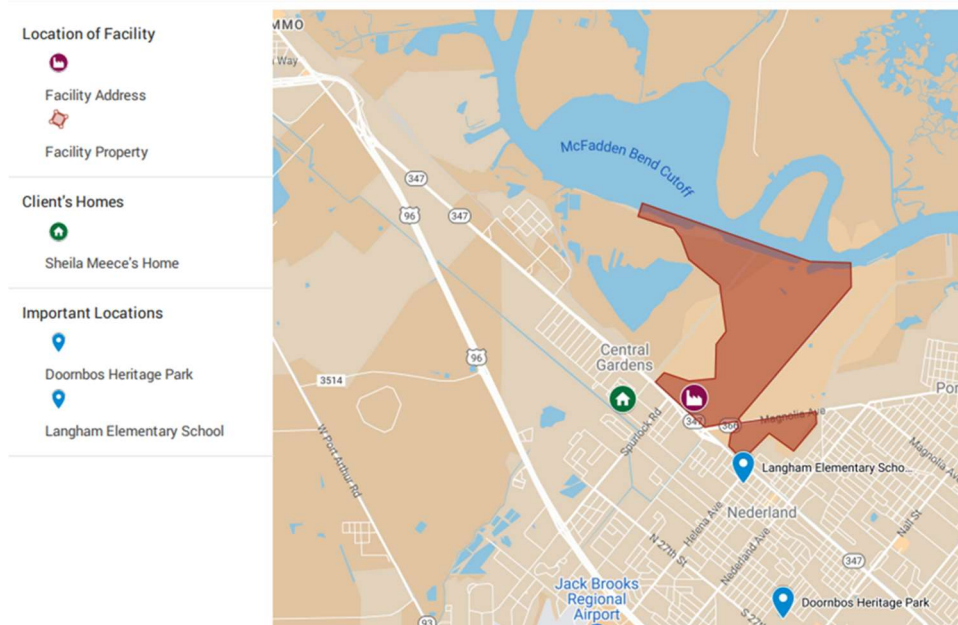
Ms. Shiela Meece's mailing address is 1412 Travis Street, Nederland, TX 77627. She may be reached during the daytime via her undersigned counsel.

Ms. Meece will be adversely affected by the air permits in a way not common to the general public because Ms. Meece lives and works so close to the proposed facility, which will be a major source of multiple air pollutants known to affect human health and safety, which can cause nuisance conditions, and which otherwise can affect the viewshed and recreational and aesthetic interests on her property. Ms. Meece's home is located at 1412 Travis Street, Nederland, TX 77627 and is 0.34 miles from the facility. Ms. Meece is affected by air pollution, such as coughing, sneezing, and itchy eyes. Ms. Meece frequently—almost daily—smells chemicals in the air. Ms. Meece is alarmed by the magnitude and nature of the air emissions proposed under the Draft Permit. The use of proper control technologies and monitoring would help address her concerns.

In addition to concern about herself and her property, Ms. Meece's is the primary caretaker of her 3-year-old granddaughter, who lives with her on Travis Street. Ms. Meece's granddaughter has allergies, and Ms. Meece worries they will be exacerbated by additional air pollution so close to her home. Ms. Meece is aware that young children are particularly more susceptible to harm from air pollutants. For example, the American Lung Association states sulfur dioxide is linked with "increased risk of hospital admissions or emergency room visits, especially among children."¹⁵ This knowledge is part of the basis for her concern about the emissions from the proposed plant. Ms. Meece and her granddaughter frequent Doornbos Heritage Park located at 2301 Avenue H, Nederland, TX 77627 and just 1.6 miles from the proposed facility. When Ms. Meece's granddaughter begins school in the next year or two, she will attend Langham Elementary School and is expected to do so for at least 6 years. Langham Elementary School is located less than 0.3 miles from the proposed facility. Ms. Meece is concerned that once the new Ethane Cracking plant is built, her granddaughter will be exposed to more air pollution while at school, including when outside during recess and/or P.E. classes.

The following map shows the location of the proposed facility, Ms. Meece's home, Doornbos Park, and Langham Elementary School. Ms. Meece and her granddaughter will be exposed to significant levels of multiple air pollutants at each of these locations and elsewhere in the area.

¹⁵ <https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/sulfur-dioxide>.



3. South End Charlton-Pollard Greater Historic Community Association (SECPGHCA)

South End Charlton-Pollard Greater Historic Community Association is a not-for-profit based in Beaumont, Texas. Mr. Christopher Jones is a Director of SECPGHCA and is responsible for receiving official communications and documents on behalf of the group. Mr. Jones' mailing address is 1045 Doucette Avenue, Beaumont, TX 77701, and his daytime number is (409) 499-9031. SECPGHCA can be contacted via its undersigned counsel at Lone Star Legal Aid.

SECPGHCA is a group comprised of individuals and organizations who live or operate in Beaumont's South End and historic Charlton-Pollard neighborhood. This area is located northeast of the proposed facility. These areas are largely Black and low-income neighborhoods. SECPGHCA' stated mission is "to create, promote, and enhance living standards and quality of life for residents" of the South End and Charlton-Pollard and "to advocate for and supply educational, scientific, and charitable engagements for the betterment of neighborhood residents." Therefore, ensuring the proposed facility, if authorized, would not harm human health and safety, will utilize appropriate pollution controls, and otherwise not create nuisance conditions or otherwise affect the quality of life of residents in the area is germane to SECPGHCA's purpose.

SECPGHCA hosts or supports events and activities which would be affected by increased air emissions in the airshed. For example, SECPGHCA is working on creating and expanding a community garden and orchard in the Charlton-Pollard neighborhood. To promote good health and fitness for area youth, SECPGHCA supports youth sports tournaments and events. In line with

promoting healthy children, SECPGHCA advocated for and helped renovate a playground at Charlton-Pollard Park. SECPGHCA routinely participates in other community events, including the annual Juneteenth Celebration, Fourth of July Celebration, National Night Out, Mardi Gras Celebration, and the Charlton-Pollard Elementary School's Annual Trunk or Treat event. These events largely take place outside.

SECPGHCA routinely promotes and strives for a healthy environment. SECPGHCA participates in an annual "Trash Bash" cleanup. SECPGHCA also advocates in front of government agencies and participates in regulatory processes. For example, SECPGHCA has advocated to the U.S. Maritime Administration and Port of Beaumont regarding federal grants and port expansion projects' compliance with federal environmental laws. SECPGHCA routinely reports environmental releases and nuisances to TCEQ and local government agencies. SECPGHCA also routinely advocates regarding flooding issues and transportation issues in the Charlton-Pollard neighborhood.

At least one member of SECPGHCA would be an affected person and entitled to a contested case hearing in their own right.

Mr. Christopher Jones is a director and the acting President of SECPGHCA. As noted earlier, Mr. Jones' mailing address is 1045 Doucette Street, Beaumont, TX 77701.

Mr. Jones will be affected in a manner not common to the general public because his home will be significantly impacted by air emissions from the proposed facility and because he works, sometimes outdoors, and recreates and otherwise lives life near the proposed facility and in areas which will be significantly impacted by air emissions from the proposed facility. Mr. Jones' home is located at 1045 Doucette Street, Beaumont, TX 77701 and is within 5.4 miles of the proposed facility. Mr. Jones lives in the Charlton-Pollard neighborhood, which is surrounded by industrial facilities (most notably, the massive Exxon Mobil plant which surrounds the neighborhood on the east and south sides), the Port of Beaumont (located on the north side of the neighborhood), multiple railroad tracks, and several busy highways (including US-90 and SH-380, and I-10 further north). Due to the various air emissions from these many sources, Mr. Jones frequently sees a discolored sky, smells pollutants, and sometimes coughs and sneezes when outdoors. Mr. Jones is concerned that significant air emissions from the proposed facility will cause and exacerbate these same issues at his home, around his neighborhood, and at places he works, recreates, and otherwise enjoys life.

Mr. Jones will also be affected in a way not common to the general public due to his working role and interest with SECPGHCA. In his official role as a director and acting President of SECPGHCA, Mr. Jones participates in all of the previously described SECPGHCA projects. For

example, Mr. Jones physically works outside at the community garden and orchard being developed by the group. He has also worked outside when SECPGHCA worked on renovating the playground at Charlton-Pollard Park, and plans to continue to work on projects at the park and elsewhere across the South End and Charlton-Pollard.

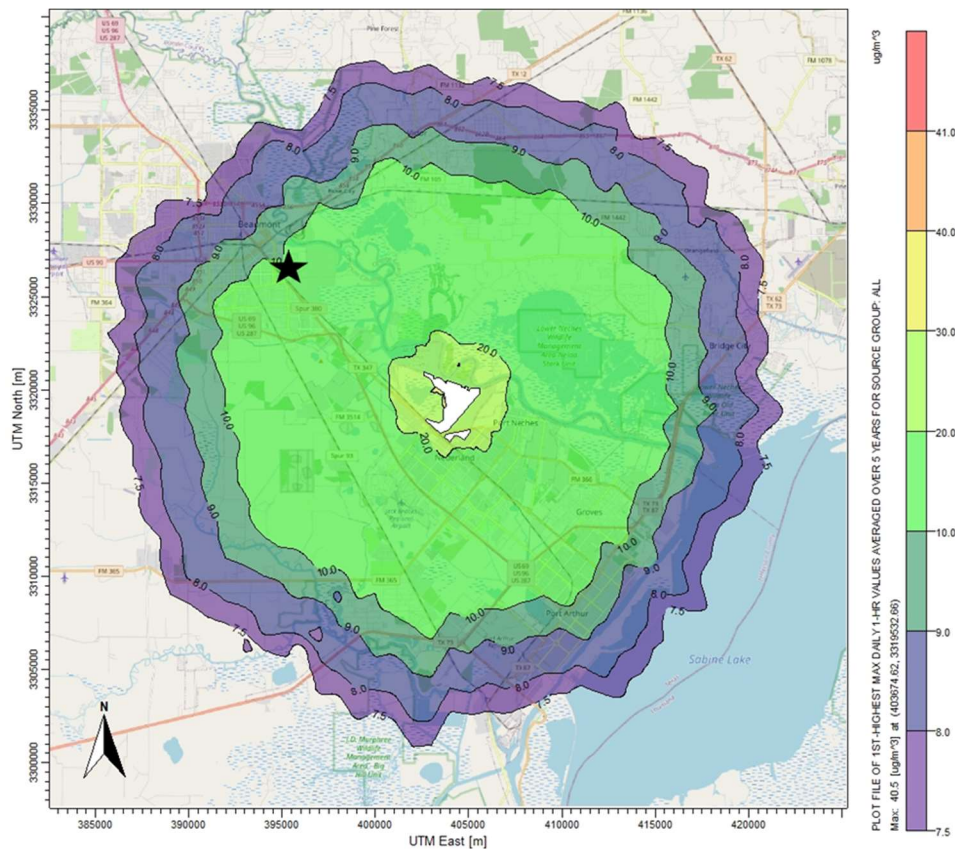
In his personal life, Mr. Jones enjoys and frequently goes crabbing along the Neches River. He enjoys attending sporting events, such as football games, at Lamar University's Provost Umphrey Stadium, Mr. Jones frequents Port Neches Park, located within 1.75 miles southwest of the proposed facility in Port Neches. Mr. Jones visits the park to watch ships transit the Neches River to the Port of Beaumont and the many large industrial facilities along the river. He also takes his goddaughter to the park. Mr. Jones' goddaughter is 12 years old and has special needs; she is epileptic and has seizures and has a compromised immune system which makes Mr. Jones even more worried about the additional air pollution that the new Nederland Ethane Cracker plant would add to the air.

Mr. Jones is concerned about air emissions from the proposed facility given the magnitude of pollutants which would be permitted. According to the Preliminary Determination Summary for the permits, the proposed facility would emit 1,676 tons of VOC, 1,132 tons of NO_x, 503 tons of SO₂, 4,951 tons of CO, amongst other notably high emissions. As Commissioner Niermann has noted, when "the authorization is not trivial...[t]he character and quantity of emissions could warrant consideration of a—probably should warrant consideration of a larger radius than we ordinarily would look at."¹⁶

Importantly, the Application itself demonstrates that the impacts from the proposed plant in the surrounding community will be "significant" out to approximately 17 miles from the proposed plant. Energy Transfer's Application, Air Quality Analysis, which was approved by the TCEQ staff as part of this proposed project, indicates the significant impact level of at least one regulated pollutant—NO₂—would exceed the so-called "significant impact level" at Mr. Jones' home. And Mr. Jones' ongoing work interest around the South End and Charlton-Pollard brings him even closer to the facility.

¹⁶ TCEQ Commission Meeting, August 25, 2021. The Commissioners voted to refer the Port Arthur Community Action Network's request for a contested case hearing regarding application by Port Arthur LNG, LLC for new Air Quality Permit No. 158420, Prevention of Significant Deterioration Permit No. PSDTX1572, and Greenhouse Gas PSD Permit No. GHGPSDTX198. The SOAH judge determined Mr. John Beard was an affected person despite living 4 miles from the facility and TCEQ accepted this finding on September 7, 2022.

The below figure, mapping the Application’s AQA 1-hour NO_x *de minimus* analysis of the proposed site (i.e., the project emissions only, without any other industrial emissions and excluding background pollution) shows Energy Transfer’s own prediction of its plant’s expected impacts, over the “significance” level – which is 7.5 micrograms. Mr. Jones’ home (marked by the “star”) will be subject to levels over 10 ug/m³, which far exceed the so-called “significant impact level” (SIL) for 1-hour NO₂. That the Applicant’s own modeling proves that emissions from its proposed Ethane Cracking plant will exceed the significance (or what TCEQ calls *de minimus*) at Mr. Jones’ home is additional proof of the impact of emissions on Mr. Jones, as opposed to the general public, and helps establish a clear justiciable interest regarding his property and health. Mr. Jones therefore understands he will be at increased risk for harm to their health and property if the Draft Permit is granted.



4. Westry Mouton Project (WMP)

Westry Mouton Project is a 501(c)(3) not-for-profit based in Beaumont, Texas. Ms. Gayla Young is the President of WMP and is responsible for receiving official communications and documents on behalf of the group. Ms. Young’s mailing address is 5550 North Briarbend Loop,

Beaumont, TX 77708, and her daytime number is (409) 998-5151. WMP may be contacted through undersigned counsel at Lone Star Legal Aid.

WMP is a group dedicated to promoting the health and welfare of residents of Beaumont's East Side. WMP focuses in particular on promoting the health and welfare of children. WMP's "team" is composed of volunteers who represent WMP at community events, run a summer camp called "Princesses on Earth" each year aimed at young girls from at-risk homes, and assist WMP in projects and education sessions around the community.

WMP routinely advocates for a healthy and safe environment. WMP has commented yearly on TCEQ's Air Monitoring Network Plans, WMP has obtained grants to purchase and install air monitors around Beaumont's east side and advocated in front of other government agencies regarding industrial development in and around Beaumont's east side. WMP recently completed a multi-part educational series about environmental and public health challenges facing Beaumont residents. The issues raised regarding this air permit are germane to WMP's purpose.

At least one member of WMP would be an affected person and entitled to a contested case hearing in their own right.

Ms. Gloria Pitre is a regular volunteer and representative of WMP at the organization's events and during other community events. Ms. Pitre's mailing address is 2385 Avenue B, Beaumont, TX 77701. Ms. Pitre can be reached during the daytime through WMP's undersigned counsel at Lone Star Legal Aid.

Ms. Pitre will be affected in a manner not common to the general public because her home will be significantly impacted by the air emissions from the proposed facility. Ms. Pitre's home is located at 2385 Avenue B, Beaumont, TX 77701 and is 6.17 miles from the proposed facility. Ms. Pitre is 69 and is concerned that increased air emissions at her home will exacerbate health issues. Ms. Pitre coughs and sneezes when outside and must sleep with a CPAP machine due to sleep apnea. Ms. Pitre notes that studies have shown "air pollution may increase the risk of sleep apnea" and establish an "association of chronic exposure to ambient derived air pollution with sleep apnea. Higher average yearly levels of NO₂ and PM_{2.5} were associated with increased odds of moderate to severe sleep apnea"¹⁷ "Inhaling polluted air resulting from poor air quality might also affect the central nervous system responsible for controlling breathing and sleep patterns. This may cause [someone's] body to stop breathing suddenly in [their] sleep or cause symptoms to worsen."¹⁸ As

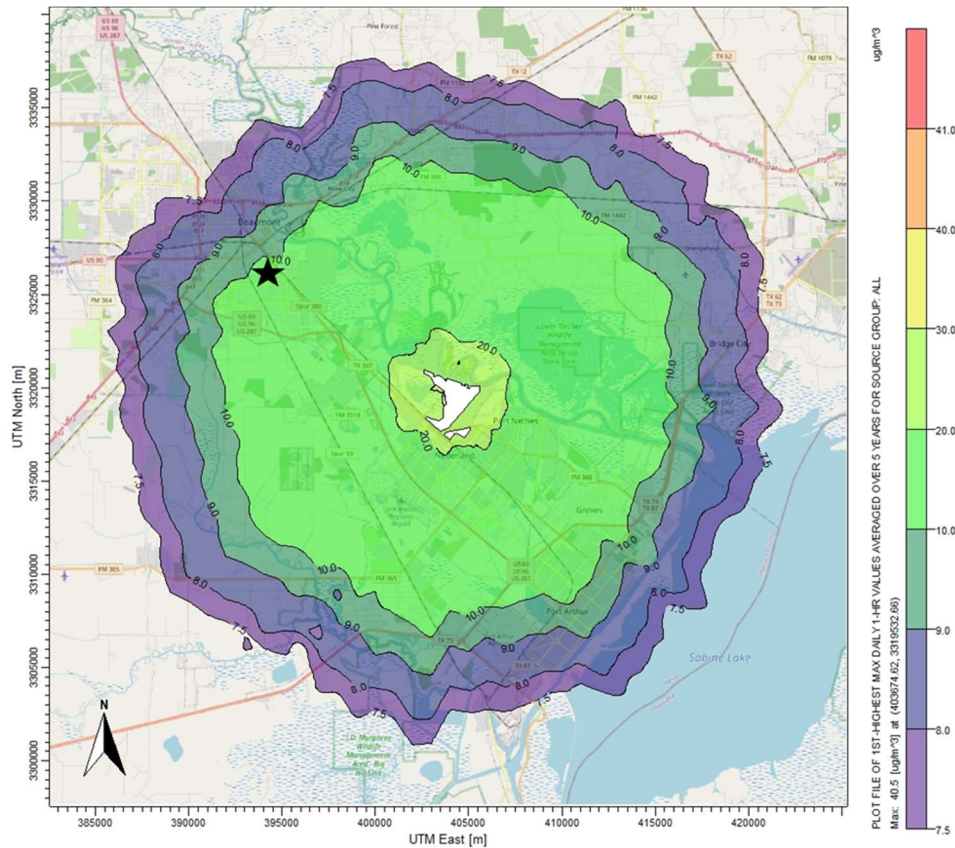
¹⁷ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6394120/>.

¹⁸ <https://molekule.com/blogs/all/can-air-pollution-cause-sleep-apnea>.

shown below, the proposed facility's NO_x emissions would exceed significant impact levels at Ms. Pitre's house. Ms. Pitre is concerned such emissions will worsen her sleep apnea. Ms. Pitre is also aware older people are generally more susceptible to harm from the air pollutants proposed by the facility.

Rather than fully repeating comments, this section incorporates those made above in the SECPGHCA request regarding the quantity and character of the proposed emissions.

As described above, the below figure, mapping 1-hour NO₂ levels directly from the Application's Air Quality Analysis, shows Ms. Pitre's home (marked by the "star") will be subject to levels over 10 ug/m³, exceeding the so-called "significant impact level" for 1-hour NO₂. That air emissions from the proposed facility will exceed the so-called significant impact level at Ms. Pitre's home raises further factual questions regarding the impact of emissions on Ms. Pitre, as opposed to the general public, and helps establish a clear justiciable interest regarding her property and health. Ms. Pitre therefore understands she will be at increased risk for harm to their health and property if the permit is granted in its current form.



5. Texas Campaign for the Environment

Texas Campaign for the Environment (TCE) is a 501(c)(3) and (4), nonprofit with a mission to engage people and organizations through action-oriented research, public education campaigns and programs that promote thriving, sustainable communities. TCE works in coalition with local, state, and national groups to stop harmful fossil fuel projects driving plastic pollution and climate change. Instead of polluting and dangerous fossil fuel infrastructure, TCE supports the creation of new jobs in sectors like solar and wind power, and energy efficient construction and renovation. As such, the issues raised herein with respect to the emissions from the Nederland Ethylene plant are germane to TCE's purposes.

TCE has members throughout Texas, including in the Golden Triangle. TCE has offices in Austin and throughout the state. Its Austin headquarters are 3903 S. Congress Ave., Austin, TX 78704. The Executive Director is Robin Schneider, 512-326-5655. TCE can be contacted through the undersigned counsel. At least one member of TCE would be an affected person and entitled to a contested case hearing in their own right. **Reanna Panelo** is a member of TCE. Ms. Panelo resides at 2204 Allan Ct., Nederland, TX 77627. On information and belief, this location is approximately 3 miles from the proposed Nederland Ethane cracking plant. Ms. Panelo was raised in Nederland. She is very concerned about the health impacts that the proposed Nederland Ethane Cracker plant will have on her and her family. Ms. Panelo's mother developed breast cancer. Ms. Panelo's mother works as a chemotherapist with cancer patients. Given her proximity to the proposed new plant, and her experience and information gained through her lived experience, with insights from her experience with her mom's cancer and work, Ms. Panelo is worried that the additional air pollution from the plant would harm her health. For these reasons, Ms. Panelo is affected in a manner not common to the general public.

In conclusion, for the reasons stated above, **Julieta Martinez, Shiela Meece, South End Charlton-Pollard Greater Historic Community Association, Westry Mouton Project, and Texas Campaign for the Environment** each request a Contested Case Hearing.

Thank you for considering these Comments and Requests for a Contested Case Hearing.

Respectfully submitted by:

/s/ Ilan Levin

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Greater Historic Community Association,
Westry Mouton Project, Julieta Martinez, and
Shiela Meece.